



Washington Metropolitan Region
Transportation Demand Management
Resource Guide and
Strategic Marketing Plan

Version 22

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- Table of Contents -	
FY 2019 TDM Resource Guide and SMP	
~ Section One ~	
Background.....	Page 4
Executive Summary.....	Page 6
Regional Activity Centers.....	Page 7
Mission Statement	Page 11
Acknowledgements.....	Page 12
Guiding Principles of Strategic Marketing Plan.....	Page 14
Key Findings and Strategic Implications.....	Page 15
Summary of Adopted Strategy for FY 2019.....	Page 21
~ Section Two ~	
Regional Profile.....	Page 27
Alternative Mode Profiles/Support Programs.....	Page 38
Carpools and Vanpools.....	Page 39
Transit.....	Page 42
Table - Summary of Bus Activity.....	Page 45
Table - Summary of Rail Activity.....	Page 53
Telework.....	Page 55
Bicycling/Walking.....	Page 58
Bike Sharing.....	Page 63
Car Sharing.....	Page 65
HOV Lanes/Express Lanes.....	Page 67
Park & Ride Lots.....	Page 76
Guaranteed Ride Home.....	Page 79
Commuter Benefit Programs.....	Page 80
Clean Air Partners.....	Page 84
Rewards Programs.....	Page 88

About the cover photo – The image is from the Guaranteed Ride Home (GRH) marketing campaign launched in FY 2019 entitled “Don’t Freak Out”. The ad campaign appeals to that inner anxiety we feel when an unexpected emergency, personal/family illness, or unscheduled overtime occurs, and our usual commute method is not available. The campaign communicates that GRH is there to calm worries about getting home safely. GRH is a free service designed to encourage alternative commute modes by providing a way home for commuters who use such methods at least twice a week.

Marketing Strategies for Network Members and Regional Partners	Page 90
Calendar of Regional Events for 2018-2019	Page 128
Regional Activity Center Profiles and Marketing Strategies	
Current Profile <i>Inner Core</i>	Page 129
Marketing Strategies <i>District of Columbia</i>	Page 132
Marketing Strategies <i>Alexandria City</i>	Page 134
Marketing Strategies <i>Arlington County</i>	Page 136
Current Profile <i>Northern Virginia</i>	Page 138
Marketing Strategies <i>Fairfax County</i>	Page 143
Marketing Strategies <i>Loudoun County</i>	Page 146
Marketing Strategies <i>Prince William County</i>	Page 148
Current Profile <i>Suburban Maryland</i>	Page 150
Marketing Strategies <i>Charles County</i>	Page 157
Marketing Strategies <i>Frederick County</i>	Page 158
Marketing Strategies <i>Montgomery County</i>	Page 160
Marketing Strategies <i>Prince George's County</i>	Page 163
TDM Research Summaries	Page 165
Central Employment Core Cordon Count of Vehicular and Passenger Volumes 2013 (April 2014).....	Page 166
Employer Satisfaction Survey (July 2014).....	Page 169
Capital Bikeshare Member Survey 2014 Report (April 2015).....	Page 172
Commuter Research Summary Report Summary (April 2015).....	Page 180
Performance of HOV Facilities On Freeways in The Washington Region 2014 (October 2015).....	Page 182
Commuter Connections Retention Rate Survey 2016 Report.....	Page 184
Guaranteed Ride Home Applicant Survey Washington DC Region 2016 Report (Sept 2016).....	Page 190
GRH Applicant Survey Report FY16 Baltimore Region (November 2016).....	Page 195
Bike to Work Survey Report 2016 (May 2017).....	Page 200
State of the Commute Survey Report 2016 (June 2017).....	Page 205
Transportation Emission Reduction Measure Analysis Report 2014-2016 (November 2017).....	Page 215
GRH Customer Satisfaction Survey Report Baltimore Region FY17 (March 2018).....	Page 221
GRH Customer Satisfaction Survey Report Washington DC Region FY17 (March 2018).....	Page 224
Annual Placement Survey Report of Applicant Database FY18 (May 2018).....	Page 227
Congestion Management Process Technical Report (September 2018).....	Page 232

BACKGROUND

The first formal transportation demand management efforts for the Washington D.C. region began in the early 1970s, under the name Commuter Club, which was established by the Metropolitan Washington Council of Governments (COG), the General Services Administration, and the Greater Washington Board of Trade to provide basic Ridematching for carpools and vanpools. In subsequent years, the program grew into a COG-coordinated network of local rideshare agencies, and in 1989, it became the Ride Finders Network which provided free alternative transportation information and computerized ride matching services to area residents seeking to join car or vanpools or locate appropriate transit arrangements and park-and-ride locations. In 1996, the regional network was renamed Commuter Connections.

In 1997, Commuter Connections expanded its services to include regional telework assistance and resources, its first website, a regional Guaranteed Ride Home (GRH) program, information on bicycling to work, InfoExpress commuter information kiosks, and free assistance to employers for the development and implementation of alternative commute programs and benefits. In 1998 Commuter Connections began to honor employers in the region through the Employer Recognition Awards program. In 2001, Commuter Connections rolled out Bike to Work Day as a regional entity, initially started as a DC based event by the Washington Area Bicyclist Association (WABA).

In 2003, Commuter Connections expanded its marketing efforts through the implementation of a regional mass marketing measure. The purpose of the measure was to brand the Commuter Connections name as the umbrella organization for commuter transportation information in the Washington metropolitan region and to subsequently increase the use of alternative forms of commuting. In 2008, Commuter Connections began coordinating Car Free Day as a regional event. In 2009, Commuter Connections introduced a carpool incentive project called 'Pool Rewards, which was expanded in 2012 to include vanpools. In 2010 Commuter Connections expanded its Guaranteed Ride Home program to include the Baltimore region and St. Mary's County. With origins beginning in 1974, Commuter Connections celebrated its fortieth year of service in 2014. In 2016, Commuter Connections unveiled CarpoolNow, a real-time ridesharing mobile app. In December 2017, Commuter Connections launched Flextime Rewards, developed in conjunction with the University of Maryland. The system sends notifications to commuters when heavier than normal traffic congestion is detected along their route, during peak travel periods.

Today, the Washington region boasts one of the highest rideshare and transit rates in the country, but also some of the worst congestion in the country. The Commuter Connections regional network provides commute services and information to area residents and employers in the Washington metropolitan region to reduce traffic congestion and emissions caused by single occupant vehicles (SOVs). The outreach mission is to create awareness of SOV alternatives and their resulting benefits; to build the Commuter Connections network as an umbrella resource that provides support services to network organizations and individuals who currently drive alone, and to facilitate those who are seeking to change SOV behavior by way of providing assistance about available commute options and alternatives. Primary activities promoted by the Commuter Connections network include ridesharing, transit, bicycling, walking, teleworking and employer services.

The following agencies share the regional commuter database, provide Ridematching services and share information and resources: Alexandria GoAlex , Anne Arundel County , Army National Guard Readiness Center, Baltimore City, Baltimore Metropolitan Council, Bethesda Transportation Solutions, Department of Defense, Dulles Area Transportation Association, Fairfax County Commuter Services, Food & Drug Administration, Frederick County TransIT Services, GWRideConnect, George Washington Regional Commission, Harford County, Howard County, Loudoun County, Maryland Department of

Transportation, Maryland Transit Administration, Metropolitan Washington Council of Governments, Montgomery County Commuter Services, National Institutes of Health-Bethesda, North Bethesda Transportation Center, Northern Neck Planning District Commission, Northern Shenandoah Valley Regional Commission, Prince George's County, Potomac and Rappahannock Transportation Commission, Rappahannock-Rapidan Rideshare, and Tri-County Council for Southern Maryland. COG provides Ridematching services directly for Arlington County, the District of Columbia, and to residents in other jurisdictions in both Maryland and Virginia not listed above.

Commuter Connections is a program of the National Capital Region Transportation Planning Board, the region's designated Metropolitan Planning Organization (MPO) at the Metropolitan Washington Council of Governments, and is funded through the District of Columbia, Maryland, Virginia, and U.S. Departments of Transportation. Other entities that play a major role in the delivery of Transportation Demand Management (TDM) products, services, and messages in the Washington region include transit agencies, local governments, business partnerships, bicycling associations, and transportation management associations.

The partnership between agencies and jurisdictions has been encouraged to develop and promote a seamless multi-modal transportation system, and a coherent message to commuters that will accelerate the trial and adoption of alternative commute modes. Transportation Demand Management (TDM) mass marketing assists the region in supporting air quality goals through the implementation of regional transportation demand management measures, which in turn will help increase regional mobility and efficiencies in the use of the existing transportation infrastructure, conserve energy, and help to improve public health by reducing air pollution.

The purpose of the Washington Metropolitan Region Transportation Demand Management Resource Guide and Strategic Marketing Plan (SMP) is to coordinate TDM marketing campaigns to maximize regional effectiveness in increasing awareness and use of alternative transportation modes. It also provides background on TDM products and services, which offer choices to Washington area residents and businesses, which assist commuters in finding and adopting alternative transportation methods.

Regional TDM marketing activities are strategically planned and executed to make best use of available resources. Messages are tailored and targeted to audiences who are most inclined to try and adopt alternative methods of commuting. Evaluation methodologies measure levels of change in travel behavior.

Furthermore, the SMP has been developed as a reference tool for use by the regional agencies and jurisdictions and outlines regional marketing campaigns and budgets that effectively promote TDM practices.

EXECUTIVE SUMMARY

Commuter Connections, through partner input conducts and reviews regional commute data and market research. Findings and results are applied to planning and marketing communication programs by targeting specific audience groups likely to adopt alternative commute practices, and through cost effective media and messaging that resonates.

This SMP focuses on key activity centers/clusters within the Washington metropolitan region. It includes data from previously conducted research, together with new information gathered from members of the Regional TDM Marketing Group. A research appendix includes executive summaries of recent Commuter Connections studies from the past five years, in addition to other relevant TDM research. An initial survey and interview process occurred in May 1997 for the inaugural SMP report, and the Regional TDM Marketing Group updates this document on an annual basis through collaborative input.

In 2007 and 2008, the Transportation Planning Board (TPB) at the Metropolitan Washington Council of Governments (COG) conducted a travel survey of 11,000 households in the Washington region and adjacent areas to gather updated information on area wide travel patterns. TPB has conducted a regional household travel survey approximately every ten years since 1968. The survey, which collects demographic and travel information from a randomly-selected representative sample of households in the TPB region and adjacent areas, is the primary source of observed data used to estimate, calibrate, and validate the regional travel demand model. The next Household Travel Survey will reflect data collected in 2017 and 2018 from 15,000 households in the Washington region.

The Washington region continues to be among the fastest growing areas in the country. With jobs and population growth occurring at a rapid pace, the stress on the region's highway and public transportation systems remain a challenge to manage.

Metropolitan Washington Regional Activity Centers

Activity Centers are existing urban centers, priority development areas, transit hubs, suburban town centers, and traditional towns. They are the locations that will accommodate much of the region's future growth and development in the coming decades.

While Atlanta has Livable Centers, and San Francisco has Priority Development Areas, the DC region has Activity Centers. Different terms similar concepts: places or hubs in large metropolitan areas where future growth is designated, encouraged, and concentrated.

Activity Centers emerged from the Transportation Planning Board's 1998 Vision, which called for a strong regional economy, including a healthy regional core and dynamic Activity Centers. Following the vision, the Metropolitan Washington Council of Governments (COG), in cooperation with local planning officials, produced the first regional map of Activity Centers in 2002 and an update in 2007. For the last 10 years, Activity Centers were mostly used for technical analysis and transportation planning purposes, such as developing growth forecasts, measuring commercial construction activity, and modeling transportation capacity.

In 2010, area leaders convened at COG through the Region Forward initiative to collaborate on fostering an accessible, sustainable, prosperous, and livable metropolitan Washington. The vision called for a mix of housing, jobs, and services in Activity Centers, as well as efficient transportation connections within and between Activity Centers. Most importantly, Region Forward re-emphasized Activity Centers as the best strategy for accommodating future growth.

Place + Opportunity: Strategies for Creating Great Communities and a Stronger Region is a concept to strengthen and enhance Activity Centers throughout metropolitan Washington. Activity Centers are the places that will accommodate much of the region's growth in the coming decades—attract residents, businesses, and visitors to the area, and are critical to ensuring the region's future competitiveness and success. Incorporating in-depth research on market, physical, and socioeconomic characteristics of the region's Activity Centers, this report offers goals, strategies, and tools to assist local governments and other stakeholders working to create thriving, high opportunity places.

Strong Activity Centers are the foundation of a strong region. While they take many different forms throughout the region, strong, dynamic Activity Centers share some common characteristics: communities that offer a range of housing, transportation options, jobs, services, and amenities. Most importantly, they provide access to opportunity for residents, workers, and businesses. The importance of these places to local communities and the region is increasingly clear. Activity Centers will more efficiently accommodate the significant growth projected for metropolitan Washington. Activity Centers with a mix of uses, amenities, and good pedestrian infrastructure have been shown to attract more people and growth, perform better economically, and prove more resilient during recessions than less mixed-use and walkable neighborhoods. The region's Activity Centers are diverse, ranging from highly urban places to suburban town centers, to traditional towns. Each community has its own aspirations, and there is no one-size-fits-all approach to achieving success. However, Activity Centers with common characteristics can benefit from similar strategies and investments.

The Regional Transportation Priorities Plan (RTPP) focuses on concentrated growth in Activity Centers, enhanced circulation within Activity Centers, and improved multi-modal connections between Activity Centers.

Currently, 29% of the region's population lives within Activity Centers, and 65% of jobs are located within them. Based on the performance analysis of the financially constrained element of Visualize 2045, by 2045, 35% of the region's population will live in Activity Centers, and 67% of the region's jobs will be located in Activity Centers. By pushing the pace on implementing policies that encourage development in Activity Centers, promoting housing affordability in Activity Centers, and by continuing to invest in good public transit, the region can reap even greater benefits from this type of land-use planning.

The Regional Activity Centers on the following pages are sorted first in descending order by number of jobs. An extensive overhaul of the Regional Activity Centers was published in January 2014 by COG's Department of Community Planning and Services.

Employment by Activity Center/Cluster			
Metropolitan Washington Council of Governments			
Round 9.1 Cooperative Forecasts			
Sorted by Number of Jobs			
Jurisdiction	Cluster	Activity Centers	Total Jobs 9.1
DC	Downtown DC	Capitol Hill, Downtown DC, Dupont Circle, Farragut Square, H St, Monumental Core, NoMa, U/14th Corridor, Westend	565,545
Fairfax	Herndon-Reston	Fairfax Innovation Center, Herndon, Reston Town Center, Wiehle-Reston East	93,324
Arlington	Rosslyn-Ballston	Ballston, Clarendon, Court House, Rosslyn, Virginia Square	91,052
Fairfax	Tysons	Tysons Central 123, Tysons Central 7, Tysons East, Tysons West	88,305
Fairfax	Dulles South	Dulles South	68,701
Arlington	Crystal City/Pentagon/Pentagon City	Crystal City, Pentagon, Pentagon City	67,741
Frederick	Frederick	East Frederick Rising, Fort Detrick, Francis Scott Key Mall, Golden Mile, Jefferson Tech Park Downtown Frederick	61,084
Montgomery	NIH/Bethesda	Bethesda, NIH/Walter Reed National Military Medical Center	58,952
Montgomery	Rockville	King Farm/Rockville Research Center, Rockville - Montgomery College, Rockville-South/Twinbrook, Rockville-Town Center	53,788
Loudoun	East Loudoun	Ashburn, Ashburn Station, Dulles Town Center, Loudoun Gateway Station, One Loudoun, RT 28 Central, RT 28 North, RT 28 South,	47,629
Montgomery	Gaithersburg	Gaithersburg-Central, Gaithersburg-Kentlands, Gaithersburg-Metropolitan Grove, Life Sciences Center/Gaithersburg-Crown	47,443
Fairfax	Merrifield Dunn Loring	Merrifield Dunn Loring	43,533
DC	Capitol Riverfront/Southwest Waterfront	Capitol Riverfront, Southwest Waterfront	43,099
Alexandria	Potomac Yard/King Street/Old Town/Braddock-Carlyle	Braddock Road Metro Area, Carlyle/Eisenhower East, King Street/Old Town, Potomac Yard	40,103
Fairfax	Fairfax Center	Fairfax Center	37,370
Prince William	City of Manassas/Manassas Park/Innovation	City of Manassas, City of Manassas Regional Airport, Innovation, Manassas Park, Yorkshire	37,097
Prince George's	Landover/New Carrollton/Largo	Landover Mall, Landover Metro, Largo Town Center/Morgan Blvd, New Carrollton	36,310
Fairfax	Fort Belvoir	Fort Belvoir	32,995
DC	Brookland/McMillan/Old Soldiers Home/Rhode Island Ave.	Brookland, McMillan/Old Soldiers Home, Rhode Island Ave	30,592
Montgomery	Silver Spring/Takoma Park	Silver Spring, Takoma Park	29,704

Employment by Activity Center/Cluster			<i>continued</i>
Metropolitan Washington Council of Governments			
Round 9.1 Cooperative Forecasts			
Sorted by Number of Jobs			
Jurisdiction	Cluster	Activity Centers	Total Jobs 9.1
Fairfax	City of Fairfax/GMU	Fairfax City, GMU	29,497
Fairfax	Fort Belvoir North Area	Fort Belvoir North Area	25,623
Montgomery	Grosecorn/White Flint	Grosecorn, White Flint	24,662
Prince George's	Prince George's Plaza/College Park/ West Hyattsville/Langley Park/Port Towns	College Park, Langley Park, Port Towns, Prince George's Plaza, West Hyattsville Metro	22,889
Alexandria	Landmark / Van Dorn	Landmark/Van Dorn	22,294
Montgomery	Germantown	Clarksburg, Germantown	21,047
Montgomery	Rock Spring	Rock Spring	19,732
DC	Georgetown	Georgetown	19,439
Fairfax	Columbia Pike	Bailey's Crossroads/Western Gateway, Columbia Pike Town Center, Columbia Pike Village Center	18,760
Fairfax	City of Falls Church / Seven Corners	City of Falls Church, Seven Corners	17,370
Montgomery	Friendship Heights	Friendship Heights	17,209
Fairfax	Dulles East	Dulles East	16,579
Alexandria	Beauregard	Beauregard	16,470
Charles	Waldorf	Waldorf	14,781
Prince William	Potomac Town Center/Potomac Mills	Potomac Town Center/Potomac Mills	13,741
Prince George's	Branch Ave/Suitland Metro/Naylor/Southern Metros	Branch Ave, Naylor/Southern Metros, Suitland Metro	13,325
Loudoun	Leesburg	Leesburg	12,674
Montgomery	White Oak/FDA	White Oak/FDA	12,271
Fairfax	Springfield	Springfield	11,072
Fairfax	Beltway South	Beltway South	10,789

MISSION STATEMENT

To provide a cooperative regional transportation document designed to serve as a marketing resource plan to reduce drive alone behavior by maximizing use of commuter transportation alternatives in the Washington-Baltimore Metropolitan regions:

More specifically, this document:

- Serves as a resource directory of current products, research, and marketing activities that have been conducted within the Washington metropolitan and Baltimore regions. It is maintained with the most current information available from notable sources.
- Outlines a strategy for a regionally coordinated TDM marketing campaign to maximize the campaign's effectiveness in increasing awareness regarding TDM, by targeting employment activity centers for the promotion of alternative transportation modes, and to create measurable results.
- Focuses on primary impacted Activity Centers/corridors in the Washington region, and profiles TDM products available within those areas.

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GUIDING PRINCIPLES OF STRATEGIC MARKETING PLAN

Through research previously conducted within the region, it is clear that the general population is aware of both traffic congestion, and clean air challenges. Unfortunately, many have not translated this awareness into action, although they state intent to do so. The alternatives to SOV behavior are perceived to lack *convenience, cost, and time efficiency*. Therefore, the marketing campaign initiated within the Washington region must possess these attributes while promoting genuine alternatives to driving alone. In addition, it must show that the options are flexible to match the commuters' daily needs, and that it will solve the stress and frustration commuters are experiencing.

The SMP document:

- Summarizes key findings of the most relevant research related to the products and demographics associated with TDM issued over the last five years.
- Addresses strategic marketing activities related to persuading the alternatives to single occupant driving.
- Focuses on key messaging that have proven effective in past campaigns.
- Conveys opportunities within specified impacted activity centers/clusters for marketing and promotions, based on ample capacity and demand for alternative commuting.
- Outlines a marketing strategy to efficiently and effectively maximize coverage within the region and increase awareness of the benefits of alternative commuting.
- Evaluates the promotions and advertising strategy by reviewing the quantity of phone calls for the 800-745-RIDE number, visits to the Commuter Connections web site, and the number of GRH and Ridematch applications.
- Evaluates awareness and performance of Commuter Connections programs and identifies commuting trends based on Transportation Emission Reduction Measure (TERM) Analysis and State of the Commute (SOC) Survey reports.

KEY FINDINGS AND STRATEGIC IMPLICATIONS

Several key findings and strategic implications were noted after review of the research summarized within the appendix of this document. These important observations and implications were taken into consideration while planning the FY19 marketing campaign. As the Baby Boomers generation continues to retire and Millennials and GenZ come to the forefront, ongoing research will provide Commuter Connections with a better understanding of the needs and demands of its changing audience.

FY 2018 Commuter Connections Applicant Database Annual Placement Survey Report

Nearly half (49.9%) of survey respondents made a commute pattern change or tried another method of transportation after receiving assistance from Commuter Connections. About one-third (36%) of applicants who made a mode change shifted from driving alone. The primary reasons that applicants made commute changes were to save money (21%) or save time (18%), because they changed jobs or work hours (14%), moved to a new residence (5%), or were tired of driving (6%). One-quarter (26%) applicants who made a commute change indicated that information they received from Commuter Connections influenced or assisted their decision to make the change.

Applicants noted four primary sources of making contact with Commuter Connections: employer / employee survey (30%), word of mouth referrals (27%), internet (18%), and radio (11%). Almost half (49%) of applicants contacted Commuter Connections to find back-up transportation in case of emergency and 14% wanted to check commute options or a transit schedule or were just curious about the service. Twelve percent made the contact to find a carpool or vanpool partner or to get information about these modes, and 8% wanted to save money.

Over half (56%) of applicants who received a matchlist or map from Commuter Connections with potential rideshare partners tried to contact someone named on the list and 83% who tried to make contact reached someone on the list. Nearly three-in-ten (28%) of applicants recalled receiving transit information. Nearly four in ten (39%) of these applicants said they used the information provided to contact a transit agency and more than three quarters (81%) who contacted a transit agency said they used information they received from the transit agency to try transit.

More than eight in ten (85%) applicants said their employers offer some commute services at the worksite. More than half (55%) said their employers offered transit pass discounts and 35% said telework or compressed work schedules were offered. Other common services included carpool/vanpool information (19%), other cash incentive (18%), matchlists (17%), vanpool subsidy (15%), GRH (25%), shuttle to Metrorail (15%), transit schedule information (12%), and Federal Transit Benefit Information (11%).

FY 2014-2017 Transportation Emission Reduction Measure (TERM) Analysis Report

The evaluation estimates reductions in vehicle trips (VT), vehicle miles traveled (VMT), and tons of vehicle pollutants resulting from implementation of each TERM and compares the impacts against established goals. Combined TERMS exceeded the collective goals for vehicle trips reduced by 14% and exceeded the VMT goal by about 18%. The TERMS did not reach the emission goals; the impact for NOx was about 31% under the goal and VOC impact was 10% under the goal, due largely to a change in the emission factors. Goals for some TERMS were re-set since the issuance of the FY2012 – 2014 Commuter Connections TERM Analysis Report. Emission factors used in the 2017 evaluation were considerably lower than the factors from 2014 and lower still than the factors used in 2011, reflecting a cleaner vehicle fleet.

When Commuter Operations Center (COC) results were added to TERM impacts, the combined impacts exceeded the vehicle trip and VMT reduction goals by 8% and 9%, respectively. The combined TERM – COC program impacts fell 37% short of the NOx goal and were 14% below the VOC goal. Again, the change in the emission factors affected the emission results.

Telework – Maryland Assistance and Employer Outreach, easily met their individual goals for participation and travel impact. Employer Outreach exceeded vehicle trip and VMT goals by substantial margins. The Employer Outreach for Bicycling TERM component did not meet its goals, but the absolute deficits were small. The Virginia telework component (Telework!VA) also met the goals set for the program.

VT and VMT reductions for the Guaranteed Ride Home TERM were about half of the goals set for these impacts, primarily due to declining registrations, compared with 2014 and previous years. The Mass Marketing TERM's VT and VMT reductions were 6% and 10% short of their respective goals. The Commuter Operations Center and the Software Upgrades TERM also were under their goals for vehicle trips and VMT reduced.

2016 State of the Commute (SOC) Survey Report, Commuter Connections

Commuter Patterns

The share of commute trips made by driving alone fell 10 percentage points over the last dozen years. Drive alone mode share continued its long-term decline from 71.4 percent in 2004 to 61.0 percent in 2016, while use of transit and telework continued to increase.

Alternative mode use was much higher for respondents who lived and/or worked in the inner portion of the region. Nearly six in ten (59%) commuters who lived in the Inner Core area (Alexandria, Arlington, and District of Columbia) used transportation alternatives. This was much higher than the 35 percent alt mode rate for the Middle Ring (Fairfax, Montgomery, and Prince George's counties) and the 25 percent rate for the Outer Ring (Calvert, Charles, Frederick, Loudoun, and Prince William counties). The mode pattern for employment area was similar.

The average one-way commute distance and time have grown marginally. The average one-way commute distance in 2016 was 17.3 miles, an increase over the 16.2 mile average measured during the 2014 SOC survey. The average commute time also lengthened; In 2016, the one-way commute time averaged 39-minutes, five minutes longer than the 34-minute one-way average observed a dozen years earlier.

Commuter Changes, Commuter Ease, and Commuter Satisfaction

Many respondents considered commuting factors when making job or home location decisions and took actions to improve their commutes. More than four in ten (43%) respondents who made a home or work location change considered how close their new location would be to transportation services such as Park & Ride lots, HOV/Express lanes, protected bike lanes, and transit stations/stops. One-third (35%) of respondents who moved said they considered a commuting factor, such as the ease or cost of commuting to the new location, when making their location decision. Nearly four in ten (39%) said commute ease was more important than other factors or was the only factor in their decision.

In 2016, the most satisfied commuters (rating of 4 or 5 on a scale of 1 – 5) were bicyclists and walkers at 97 percent. Commuter rail riders were the second most satisfied, at 70 percent. At 66 percent, carpoolers/vanpoolers and bus riders were equally satisfied. Of alternative transportation mode commuters, Metrorail riders reported the lowest level of satisfaction in 2016; satisfaction among

Metrorail riders dropped by 19 percentage points since 2013, from 67 to just 48 percent. Commuters who drove-alone cited their level of satisfaction at 57 percent.

Telework

The percentage of workers who telework grew between 2013 and 2016, continuing a steady upward trend observed since 2004. The percentage of regional telework has more than doubled since 2004 and telework incidence grew in nearly every demographic and occupational segment in which telework was feasible. In addition, the potential for more telework growth exists.

Nearly one-third (32%) of regional commuters said they teleworked at least occasionally. The 2016 survey showed that an additional 18 percent of all commuters who did not telework “could and would” telework if given the opportunity, and the percentage of commuters who said their jobs were incompatible with telework dropped, from 65 percent in 2004 to 41 percent in 2016.

The share of respondents who self-defined as “teleworkers” likely underrepresented the true share of telework activity in the region because 13% of regional commuters worked at home occasionally but did not consider themselves teleworkers.

The percentage of teleworkers who worked under “formal” telework arrangements with their employer, exceeded the percentage who teleworked under informal arrangements. More than half (56%) of teleworkers did so under a formal arrangement. This represented a significant shift from 2004, when only 32 percent of teleworkers had a formal agreement.

Teleworkers received information on telework from a variety of sources; 9 percent said they received telework information directly from Commuter Connections or COG. The largest source of telework information was from their work/employer, named by 73 percent of respondents.

Availability of and Attitudes Toward Transportation Options

Most respondents report access to some transit service in their home area. More than eight in ten (89%) said that some transit service served their home area. A similar percentage (86%) said service operated where they worked. Half (51%) of respondents said they lived less than ½ mile from a bus stop and 66% said they lived less than one mile away. Train station access was less convenient; only 17% lived less than one mile from a train station.

Respondents who used HOV/Express lanes saved an average of 20 minutes on their commute and 48% said availability of the lanes influenced their mode choice.

Quality of Life and Transportation

Commuters recognized both personal and societal benefits of alternative mode use, and commuters who used such modes made productive use of their travel time. When asked what benefits a region or community receives from alternative mode use, 80 percent of respondents could name at least one benefit. Nearly six in ten (59%) respondents said that use of alternative modes could reduce traffic congestion.

Respondents also noted several regional/community benefits related to environmental concerns. More than a third of respondents (36%) said commuters who use alternative travel modes reduce pollution, twelve percent reported reducing greenhouse gases as a benefit, and 9 percent said saving energy.

Nine in ten (89%) respondents who used alternative modes for their commute said they received at least one personal benefit from using such modes. Saving money topped the list at 33 percent. Respondents also cited benefits that had a connection to quality of life. More than two in ten (22%) of respondents said use of alternative modes helped them avoid stress or relax while commuting, and 18 percent said they could use their travel time productively. More than one in ten (13%) said they got exercise or health benefits, and 10 percent said alternative transportation modes helped them arrived at work on time.

Awareness of Commute Advertising and Assistance Resources

Most regional commuters were aware of commute information and assistance resources. More than half (54%) of all respondents said they had seen, heard, or read advertising for commuting in the six months prior to the survey, and 67 percent of these respondents could cite a specific advertising message. About half (49%) of respondents who could cite an advertising message could name the sponsor of the ad. WMATA was named by 23 percent as the advertising sponsor, and Commuter Connections was named by 13 percent.

About 9 percent of respondents who recalled an advertising message said they took some action to try to change their commute. More than six in ten (61%) of respondents who took action to change their commute said the advertising they saw or heard encouraged the action. And respondents who made a mode change had driven alone for 48% of their commute trips before they made the change.

Commuter Assistance Services Provided by Employers

Driving alone was less common for respondents who had access to benefits. Only 55% of respondents with these services drove alone to work, compared with 76% of respondents whose employers did not provide these services.

Availability of worksite commute assistance services remained stable between 2013 and 2016 but has declined since 2010. Fifty-five percent of respondents said their employers offered one or more alternative mode benefits or services to employees at their worksites. This was about the same share as in 2013 (57%), but a drop from the 61 percent noted in the 2010 survey, suggesting that employers that cut back the services during the economic recession had not yet re-introduced those services.

The most commonly offered services were SmarTrip/subsidies for transit/vanpool, available to 37 percent of respondents, and information on commuter transportation options, available to 27 percent of respondents. Nearly one-quarter (23%) of respondents said their employers offered services for bicyclists and walkers and 21 percent said their employers offered preferential parking for carpools and vanpools.

Most commuters (64%) continue to have free onsite parking. An additional 6 percent of respondents said their employers did not provide free parking to all employees, but that they personally had free parking. Respondents whose employers did not offer free parking used alternative modes at much higher rates. Only about four in ten (42%) respondents who did not have free parking drove alone, compared with 80 percent of respondents who had free parking.

2016 Washington Region Guaranteed Ride Home Program Survey

This report presents the results of a survey of 2,171 commuters who participated in the Commuter Connections Regional Guaranteed Ride Home (GRH) Program operated by the Metropolitan Washington Council of Governments (MWCOCG) for commuters who work in the Washington metropolitan region.

One-quarter had been registered for one year or less, but nearly seven in ten (68%) had been participating for more than three years.

A slightly higher proportion of GRH participants were male (53%) than female (47%). Caucasians (70%) and African-Americans (17%) represent the two largest ethnic group categories of GRH survey respondents. More than half of respondents (56%) had household incomes of \$120,000 or more and 16% had incomes of \$200,000 or more. About half (53%) were between the ages of 35 and 54 years old, four in ten (39%) were 55 years or older, and 8% were under 35 years old. A significant percentage, 23% of GRH respondents worked a compressed schedule. The average one-way distance for GRH respondents was 35.9 miles. Among the sample of respondents, 58 who increased the number of days they used alternative modes after joining GRH, the results were notable; these respondents increased their alternative mode frequency from 2.9 days to 4.5 days. About 24% of respondents said they primarily drove alone to work before starting GRH. About 10% said they were “not at all likely” to have continued using these alternative modes if GRH were not available, and 23% who increased alternative mode use said they were not likely to have made the change without GRH.

2016 Bike to Work Day Survey

Twenty-three percent of respondents said the 2016 Bike to Work Day event was the first they attended. An overwhelming majority (95%) of respondents said they were very likely to participate in another Bike to Work Day event in the future, and 89 percent of respondents said they were very likely to recommend Bike to Work Day. Participants were distributed across all age brackets. About three in ten (28%) were younger than 35 years old, 20 percent were between the ages of 35 and 44 years, and 26 percent were between 45 and 54 years old. Approximately one-quarter (26%) of respondents were 55 years or older.

Men substantially outnumbered women; 64 percent of Bike to Work Day survey respondents were male and 36 percent were female. The overwhelming majority (85%) of Bike to Work Day survey respondents were Caucasian. Approximately equal shares of respondents had other racial/ethnic origins.

Many respondents mentioned a connection to the bicycling community or enjoyment of bicycling as their favorite part of the event. Nearly three in ten (29%) said they most enjoyed sharing the ride to work with other cyclists. Another 16 percent mentioned having more cyclists on the road. Seven percent said they enjoyed riding to work. Twenty-eight percent of respondents cited the excitement and activities at pit stops as their favorite part of the event. One in ten mentioned getting free food/snacks (11%), receiving a T-shirt (11%), or receiving other free items.

Eighty-six percent of respondents rode to work at least occasionally before they participated in their first Bike to Work Day event, whereas the remaining 14 percent of respondents never commuted by bike before they participated. The respondents who became new bike commuters because of Bike to Work Day, rode an average of 1.4 days per week following the event.

2014 Employer Satisfaction Survey Report

The survey of 398 employer customers of Commuter Connections and local member organizations indicated significant potential for the broader implementation of commute-related benefits by employers. The large majority, 72 percent of respondents said they were satisfied with the level of contact that they had with their Commuter Connections network representative, rating it “about right.” 25 percent of respondents who had not had a contact in the past year said the level of contact was less than they wanted. But the fact that 69 percent of these respondents said having no contact was “about right” indicates that some respondents did not feel it necessary to hear from or see their

representatives. Over 80 percent of respondents said they would prefer email for communications with/from their Commuter Connections network representative.

SUMMARY OF ADOPTED STRATEGY FOR FY19

Commuter Connections is a regional network of organizations providing commute services and information to area residents and employers in the Washington metropolitan region to help reduce traffic congestion and emissions caused by single occupant vehicles (SOVs).

As part of the Regional Mass Marketing Transportation Emission Reduction Measure, the Commuter Connections Marketing program will provide frequent promotion of Ridematching services, Guaranteed Ride Home, 'Pool Rewards, CarpoolNow Mobile Application, and, new to FY 2019, Flextime Rewards in addition to special events such as Bike to Work Day, Car Free Day, and the Employer Recognition Awards. These various services and special events promote alternative commute options including: ridesharing, teleworking, bicycling, walking, and mass transit. The FY 2019 marketing program will raise awareness of commuting choices available in the Washington metropolitan region. Additionally, the program will support Commuter Connections network members in educating area workers and the general public on how to find and use alternatives to driving alone, for work trips and in some instances non-work trips.

Marketing Input: The background for this marketing brief was derived from the following sources:

- 2016 State of the Commute Survey Report
- 2016 Commuter Connections Guaranteed Ride Home Applicant Survey Report for the Washington DC Region
- 2016 Commuter Connections Guaranteed Ride Home Applicant Survey Report for the Baltimore Region
- 2016 Bike to Work Survey TERM Analysis Report
- FY 2018 Commuter Connections Applicant Database Annual Placement Survey Report
- FY2015-FY 2017 Commuter Connections Transportation Emission Reduction (TERM) Analysis Report

These reports and surveys are the cornerstone for the FY 2019 Marketing Communications Plan. They provide quantitative and qualitative measurement of commute behavior by workers and Commuter Connections program applicants throughout the Washington metropolitan region and the impact of this behavior on air quality and congestion.

In addition to comprehensive data provided by these reports, the marketing team conducted a Regional TDM Marketing Creative Input Survey in July 2018 through members of the Regional TDM Marketing Group. Other important inputs which is taken into consideration includes performance data from past campaigns, as well as information gathered through industry reports, surveys, and trends, and how they might be applied to the Commuter Connections mass marketing campaign efforts. This information is used to support the development of the media and/or messaging strategies.

The fluctuating nature of gas prices has had a measured effect on ridesharing over the past several years. In the DC/Virginia/Washington area, gas prices now average about \$2.80 per gallon, the highest price since 2015. The price at the pump will continue to be an important issue for commuters as it is increasingly influential in commuter's willingness and availability to use alternative modes of transportation. The economic benefit of ridesharing remains a strong, simple message that resonates and will continue to be emphasized.

In addition to gas prices and the economy, other regional events will impact this year's messaging and strategy, such as construction/rehabilitation projects to improve the highways and Metrorail in the region that are in various stages of progress. Commuter Connections has an opportunity to team up with VDOT to provide commuters with project updates and commute alternatives, such as Ridesharing, which has benefits and incentives including Guaranteed Ride Home and 'Pool Rewards.

In the 2016 State of the Commute Survey, awareness of commute options is shown to correlate positively with awareness of Commuter Connections, and commute advertising has been shown to influence consideration of commute alternatives. Train commuters continue to exhibit the highest level of alternative commute awareness. Commuter rail riders show a relatively high level of satisfaction with their commutes (70 percent), particularly compared to those who drive alone (57 percent). This satisfaction disparity can be leveraged as part of the Mass Marketing campaign. Continuing a partnership between Commuter Connections and Northern Virginia Megaprojects would stand to greatly benefit both parties toward a common goal.

DC employees are reported to have the third longest work week. The 2018 Annual Placement Survey supports this statistic with its finding that the average one-way commute distance is 35.1 miles and 66 minutes. Many commuters rely on the Metro system to get to and from work. The Metro's SafeTrack project, now complete, repaired the Metrorail system on an accelerated one-year schedule. This has impacted commuters dramatically but will continue to do so through upcoming improvements to the rail system, which can be leveraged through marketing efforts.

The Washington metropolitan area offers multi-modal transportation choices, particularly within the inner core where transit, bike/carsharing, and apps to navigate it are robust. Paving, construction, and bridge repair projects continue for I-495, I-66, Route 50, Route 1, Virginia Ave Tunnel, Gallows Road Bridge, and Old Centerville Bridge. Revitalization projects in select Washington D.C., Maryland, and Virginia areas include highway and bridge improvements, paving, and pedestrian safety features. I-495 ramps to I-395 bridge repairs began in spring 2017. Work on the bridges include replacing concrete and bearings, paving the approach bridge, and repairs to concrete beams, piers, and abutments. Newly revised plans for high-occupancy, dynamically tolled Express lanes along I-66 between the beltway and U.S. 29 Gainesville, were finalized and presented to the public in June 2017. The proposed two new Express Lanes in each direction will be between three general purpose lanes and a shoulder along the 22-mile corridor in either direction. The plan also indicated these Express Lanes will be free for vehicles carrying three or more people and have an E-ZPass Flex switched to HOV mode. Lanes are scheduled to open in late 2022. Other drivers can pay a toll to use the lanes, which will be dynamically priced based on demand to encourage or discourage more drivers from using the lanes. This will encourage commuters to carpool in order to save money and time. Those that use general purpose lanes should move faster if more people are using toll lanes, carpooling, or taking the bus. Benefits of the Express Lanes include new support in revenue for carpooling, slugging, or buses.

Carpooling continues to receive national and regional attention through social media platforms and mobile apps. Targeted social media and digital presence are important aspects of the Commuter Connections marketing campaign to reach a growing demographic. Additionally, the use of hashtags, and video within social media are ways to help expand to a younger audience. Millennials (born 1983 to 2000) make up 25 percent of the population and are causing a decline in car usage and ownership; this newfound openness to Ridesharing and other forms of mobility is positive news for the TDM community. Increased awareness provides an opportunity to address the advantages Commuter Connections can offer the region to build its customer base. In service for over forty years, Commuter Connections has an established, trusted brand across the region and boasts a database of over 17,000

commuter ridesharing accounts. The Ridematching service offered by Commuter Connections allows commuters to easily find and establish carpools to meet their day-to-day commuting needs. Cost savings, the need for back up transportation (GRH), and commuting choices from a trusted source, can also help establish a lasting carpool. These messages will continue to be explored in this year's regional TDM marketing campaign. Additionally, regional commuters have access to the Ridematching system through a mobile platform, unveiled in FY 2014. Commuter Connections' real-time free Ridematching app, CarpoolNow, allows the region's commuters easy access to finding carpool partners and locating park-and-ride lots. The app increases interest in carpooling by providing more and easier ways to find a shared ride, which can be leveraged and promoted in this year's outreach effort.

The most important personal benefits of ridesharing, saving time and money impact the way commuters make their transportation choices. The demographics are changing as well, switching from baby boomers to Millennials. By 2030, Millennials will represent most of the population and will be influential when it comes to driving habits at their peak age of 35 to 54 years old. Currently, Millennials are driving less, buying fewer cars, prefer dense and walkable neighborhoods, and have reduced the miles traveled for personal business and shopping. When looking at this demographic, you have to understand that two-thirds own smartphones and the internet is universal, even among low income levels and minority populations. A 2016 Washington Business Journal report about Millennials states that they value short commute times or proximity to public transportation more than low crime rates. However, according to data from the Bureau of Labor Statistics, total employment in the U.S. rose by 2.078 million last year and more employees are commuting to the office. Americans are increasing their fuel consumption and burning more gasoline on their daily commutes. This increase in gasoline consumption has been glaringly apparent to many people, particularly Millennials. The sharing economy has greatly increased the interest in alternative fuels and modes of transportation. Fewer people own cars, more people are renting them, even more people are sharing them, and on-demand transportation services such as Uber and Lyft are exploding in popularity.

Societal benefits like saving energy and reducing pollution and congestion rank among the top motivators for those who use commute alternatives. Trends point toward people actively working to improve their commutes and willingly trying alternative commute options. Many people are increasingly aware of their own impact on the environment and are familiar with ways to positively impact the current environmental situation, including the use of public and alternate transportation. There is also a connection between health and transportation that should be considered as part of the message.

For commuters who rideshare, the Guaranteed Ride Home (GRH) program provides a valuable service in securing a free and reliable ride home in case of an unexpected personal or family illness or emergency, or unscheduled overtime. To increase GRH awareness and drive applications to the program, the most receptive areas need to be targeted, both geographically and demographically. This year's campaign will continue to promote GRH registration within the inner core for those switching to or already using transit, bicycling, and walking to and from work. For commuters in the middle and outer rings, Baltimore Metropolitan region, and St. Mary's County, the campaign will focus on positioning GRH as a service provided to those who convert from SOV driving to other mobility modes or who already use alternative modes such as ridesharing and public transportation. The overall message will remain focused on registration for the program and positioning it as a safety net to ease the transition for those switching from driving alone to using transportation alternatives to and from work. Messages will also remind consumers to call or visit the Commuter Connections website to re-register annually.

In addition to paid and earned media, the regional effort will include Car Free Days and Bike to Work Day events. The mission of these events is to encourage SOV drivers to try alternative transportation

modes. The intention is to change their behavior so that individuals will choose to incorporate such alternatives as part of their regular, or at least occasional, commute or lifestyle patterns.

The regional TDM overall marketing approach for FY19 aims to incorporate the following strategies and tactics:

- Emphasize the cost savings benefits of ridesharing, specifically using simple, direct messages that communicates how sharing a ride saves money.
- Capitalize on the Commuter Connections mobile Ridematching capabilities to position Commuter Connections as the trusted, convenient regional provider of Ridematching services for over forty years.
- Draw on the additional savings of 'Pool Rewards as another incentive within rideshare ads.
- Drive Baltimore Metropolitan region, including St. Mary's County commuters who use public transportation, bicycling, or walking to register for GRH.
- Leverage carpooling and vanpooling by positioning GRH as a safety net for ridesharing and public transportation users, available to commuters in case of unscheduled overtime or an unexpected personal or family emergency or illness.
- Increase the number of participants in special events and promotions such as Car Free Days and Bike to Work Day based on set committee goals.
- Increase the number of commuter downloads and usage of the CarpoolNow mobile application in the Washington, DC region through the use of creative materials in traditional and digital media outlets.
- Increase commuter participation in the Flextime Rewards program.
- Promote employer efforts to ease regional commuting issues through earned media placements and highlight the Employer Recognition Awards; incorporate human interest stories of commuters using alternative commute modes and/or employers offering commuter benefits that have higher than expected engagement levels.
- Increase reach to younger demographic (18-34yo), Spanish, and African American audiences in radio and print messages.
- Explore opportunities to advertise with transit and/or bus wraps.
- Reduce work trips.
- Leverage umbrella campaign value add to support icenTrip messaging.

Media buying strategies will be selected based on Scarborough Research reports for the specific target audiences for each of the following Commuter Connections properties: Ridesharing, Guaranteed Ride Home, GRH Baltimore, Employer Recognition Awards, Car Free Days, Bike to Work Day, 'Pool Rewards, CarpoolNow App, Flextime Rewards, and any other program or event. These reports identify specific media that are best suited for each target audience. The report information is considered along with the cost of each media option and results from previous Commuter Connections campaigns.

For FY 2019, digital media is recommended as the anchor medium for the program. Digital media has the ability to reach a large portion of the Commuter Connections target markets.

Visual creative is important to provide reinforcement of messages delivered through radio spots, as well as brand awareness. FY 2019's marketing strategy will include well-placed visuals across the geographical region. Outdoor print such as bus signage and shelters will be evaluated as potential visual elements for the campaign.

New and existing digital media, such as Google, YouTube, Twitter, Instagram, and other social media, is also recommended to compliment the overall campaign. Online advertising with visuals will drive target audiences searching for commuter or carpool/vanpool options to the Commuter Connections website. Utilizing retargeting with the audience at key decision-making moments will increase the reach to the target audiences. Facebook continues to be the most popular social network and ads on the platform drive a 60% increase in sales. Twitter is an ideal platform for real time marketing and responses within minutes of an event. According to Instagram, 80% of users say they follow at least one business on the app, with 60% hearing about a product and service through the platform. As of March 2017, over 120 million Instagram users visited a website, got directions, called a business, emailed, or direct messaged a business. Snapchat is best when you want to show insight into a business, event or product or advertising through geographically set filters. For all these reasons, these will be evaluated for use and best practices for each campaign.

Internet advertising is also visual and closer to one-to-one selling than any other form of media. Optimized placement of banner ads on websites targeted to jurisdiction, news, weather, television affiliates, and job sites may be used to reach commuters who are just a click away from Commuter Connections' online Ridematching service or GRH registration and re-registration.

Opportunities to involve retailers and local businesses in sponsorship or promotion of Commuter Connections programs such as GRH Rewards, Bike to Work Day, and Car Free Days will be considered. We aim to identify businesses interested in both encouraging people to explore the use of sustainable, healthy transportation and benefiting from the patronage of those commuters. Retailers could provide sponsorship through giveaways or discounts for events such as Car Free Days or could be involved in co-promotional opportunities.

In addition to traditional media, the marketing team will look to further expand the use of social media, mobile apps, smart phones, and tablets. Building upon Commuter Connections' existing pages on Facebook and Instagram (Commuter Connections, Telework, Bike to Work Day, and Car Free Days) and accounts on Twitter (Bike to Work Day and Car Free Days), which have received increasing attention over the last few years, the marketing team will investigate additional strategies to increase engagement and integrate social media activities with other marketing approaches.

The marketing team will examine opportunities to provide improved smart phone access to Commuter Connections resources and commute option information and benefits. Augmented reality (enhancing reality with digital content) may be used to enhance marketing creative and provide smart phone users with immediate access to Commuter Connections' information and registration or pledge pages. This would also improve Commuter Connections' digital presence and help us to reach our newly targeted younger demographic and even increase engagement.

Existing creative developed in FY 2018 will be used for the FY 2019 fall campaign; results of the complete FY 2018 campaign will be studied, and best practices will be carried forward for the FY 2019 campaign. The creative team will consider the results of the FY 2018 campaign along with area transportation trends and additional exploration to help identify the most effective messaging strategies for implementation for spring 2019.

The marketing team will investigate format and layout options for print pieces, including the Commuter Connections newsletter, direct mailer, and the Employer Recognition Awards nomination brochure. New formats or layouts will look to one or more of the following objectives: decrease print costs, increase usability and response rates, and provide a fresh, new look.

The Marketing Communications Plan will effectively and efficiently reach its target markets based on a review and analysis of third party media data from Strata, Scarborough, and Arbitron as monitored by a professional media buying firm. Reach and frequency of the target demographic will be calculated using a cost/value proposition for each media option.

REGIONAL PROFILE

The National Capital Region comprises approximately 3,500 square miles and spans the spectrum of settlement patterns: urban, suburban, exurban, and rural. The region is one of the most affluent in the country, with an annual median household income of nearly \$94,000 and a gross regional product of over \$509 billion per year. This economic strength is due in large part to a consistently strong job market, driven by the federal government and the robust service sector that supports it.

The difference in laws, government structures, and financial resources of Maryland, Virginia, and the District of Columbia creates a complex policy environment. The region's large size and range of development patterns lead to diverse transportation needs. For these reasons, regional transportation planning and decision making must balance a wide array of needs and priorities.

Over the past few decades the National Capital Region's healthy economy has fueled consistently strong population and job growth, and that trend is expected to continue well into the future. Since 1970, the region's population has nearly doubled and the total number of jobs in the region has grown at an even faster rate. From 2000 to 2017, the region gained over one million more residents at a steady rate – from 4.4 to 5.6 million people over the 17-year span. Total regional employment has grown by almost 400,000 jobs from 2000 to 2016, although the recession of the late 2000s slowed the growth and resulted in reductions in regional employment for a few years. The economy has since recovered and the region is adding more jobs every year.

Today there are 5.7 million people living in the National Capital Region. By 2045 that number is expected to grow to more than 6.9 million, an increase of 23%, according to MWCOG's Cooperative Forecasts Round 9.1. Charles County's population will grow at the fastest rate (44%). Fairfax County and the District of Columbia will gain the most residents, each planning to grow by over a quarter-million people.

The number of jobs in the region will grow from 3.3 million today to 4.3 million by 2045, an increase of 29%. Fairfax County and the District of Columbia, the jurisdictions with the most forecast job growth, are expected to each gain over 200,000 more jobs during that time period.

Over the past few years the TPB has continually discussed ways to address the "east-west divide" which causes residents on the eastern side of the region to travel longer distances to reach jobs on the western side of the region. In endorsing an aspirational initiative to "bring jobs and housing closer together," the TPB is calling upon regional leaders to promote policies encouraging more housing in general, and more housing near transit and in Activity Centers.

Housing availability and affordability is a growing problem in the region. With employment expected to grow at a faster rate than the population, if housing growth cannot keep up with the rate of employment growth, more and more people will have to commute into the region from outside. This type of commuting pattern puts a heavy load on the region's roads and transit systems as trips become longer and often more congested. Planners and decision makers face the challenge of planning to accommodate this growth to maintain the economic vitality of the region and a high quality of life.

The Regional Transportation System

The transportation system in the National Capital Region is linked to the patterns of past growth and development. Robust rail and bus transit, and an expansive system of highways and priced toll lanes make up the high-capacity backbone of the transportation system. In addition, extensive infrastructure

for bicyclists and pedestrians, as well as provisions for bike-sharing, ride-hailing, and car-sharing services, allow for a wide range of options throughout the region.

The region's transportation network is massive, which makes planning for the future that much more complicated. Within its boundaries, the region is served by:

- More than 17,000 lane miles of highways and major roads, around 400 miles of which are tolled lanes
- 118 miles of Metrorail and 91 Metrorail stations
- 167 miles of MARC and VRE commuter rail and 39 commuter rail stations
- Six miles of bus rapid transit, light rail and streetcars, with more soon to come
- Over 500 miles of off-street paved trails and paths for walking and biking
- Over 200 miles of bike lanes
- Over 15 local and commuter bus systems and over 10 paratransit service providers
- Nine intercity train stations and 14 intercity bus stations connecting this region to others
- Three major airports with extensive domestic and international connections: Baltimore/Washington International Thurgood Marshall Airport (BWI), Ronald Reagan Washington National Airport (DCA), and Washington Dulles International Airport (IAD)

Travel Patterns in Metropolitan Washington

Approximately 17 million trips are taken per day on all modes of transportation for all purposes, including travel to work, to school, to medical appointments, and to other destinations. Of those trips, 41% are people driving alone, 40% are in a vehicle with two or more people, 12% are by walking or biking, and 7% are by bus or rail transit.

Every two years TPB conducts a survey on commute travel, and the most recent results demonstrate that travel to and from work accounts for 3.5 million trips each day. As of 2016, the majority of work trips, or 61%, are taken in a single occupancy vehicle, 5% are in a vehicle with two or more people, 15% by rail transit, 5% by bus, and 3% by walking or biking.

Over the past 10 years, the share of single occupancy vehicle trips has slightly declined in favor of other modes, including carpooling, transit, walking, and biking. Following this trend, it is expected that the share of single occupancy vehicle trips will continue to decline as additional transit services come on line, as bicycle and pedestrian infrastructure continues to grow, and as land-use policies push for the concentration of jobs and households in regional Activity Centers.

Bus and Rail Transit Use

Public transit, whether rail, local bus, bus rapid transit, or streetcar, reaches all 23 jurisdictions in the region and carries a significant number of people to their destinations every day. Though transit modes only account for 7% of all daily trips taken, one-quarter of all trips to and from work are on public transit. Additionally, the National Capital Region is fourth in the U.S. in the average number of transit trips taken per month. As of 2017, Metrorail, one of the largest mass transit systems in the country, handles over 600,000 trips per weekday, and the bus systems throughout the region collectively carry another 600,000 trips per weekday. Commuter rail services including MARC and VRE carry around 50,000 riders on an average weekday. Metrorail ridership hit an all-time peak in 2009 and remained somewhat steady until the past few years. Since 2015, overall ridership has declined which has followed national trends in travel patterns. Bus operators have also reported similar drops in ridership over the past few years. However, regional forecasts see this downward trend as temporary. As land-use patterns

continue to concentrate jobs and households near new and existing high-capacity transit systems, transit ridership levels are expected to increase.

Motor Vehicle Travel

Motor vehicle travel comprises the vast majority of trips taken in the region. As of 2016, vehicles traveled approximately 123 million miles per day on average on the region's roadways, which is an increase of 2% since 2006. Though driving measured in vehicle miles traveled (VMT), has increased over the past decade, it has done so at a slower rate than the 16% increase in the region's population over that same period of time. Therefore, the total number of VMT per person decreased by 12% between 2006 and 2016, as more people are living in the region and an increasing amount of people are finding alternate modes to use for their daily travel.

There are approximately 4.1 million vehicles registered in jurisdictions throughout the region, up from 3.6 million vehicles 10 years ago. Most of these vehicles are classified in the light-duty cars and motorcycles category, followed by light-duty trucks (including SUVs), and a relatively small number of heavy-duty vehicles and buses. The share of hybrid and electric vehicles has been steadily increasing over the past decade. There are currently 121,000 hybrid vehicles registered in the region, which is 3.1% of the total fleet, and on top of that there are 4,400 electric plug-in vehicles.

VMT is forecast to continue to increase as population and employment figures increase throughout the region. However, vehicle miles travelled per person will continue to decline. Though the number of vehicles in the region will also likely increase, trends indicate that these vehicles will continue to get cleaner and more efficient as time goes on. The eventual introduction of autonomous vehicles will also begin to make an imprint on the region as new technologies are adopted, although the pace and implications of integration are still largely unknown.

Teleworking

A significant number of workers in this region telework some of the time instead of physically travelling to their place of employment every workday. When surveyed in 2016, nearly one-third (31%) of respondents said that they telework at least some of the time, up from 11% in 2001. As more and more workers have the option to work from home, teleworking has changed the landscape in this region by reducing the total number of people accessing the transportation system on a given day. Even when taking into account the growth in teleworking that has occurred, there is still a huge potential for an even greater increase as more employees make accommodations for teleworking.

Taxis and Ride-Hailing Services

The advent of smartphone application-based ride-hailing services like Uber and Lyft (also known as transportation network companies, or TNCs), has revolutionized for-hire transportation in the region. A decade ago, most for-hire services were provided by taxicab and limo companies that operated in separate jurisdictions throughout the region. TNCs provide an alternative, not only to taxis and limousines, but to driving alone and taking transit as well. More data are needed to more thoroughly understand how residents and visitors to our region are using TNCs. It is expected that TNC trips will continue to increase as these companies grow and introduce more products and services to entice more riders.

Bikeshare

The metropolitan Washington region has been at the forefront of one of the most innovative advancements in bicycling in the 21st century: bikeshare. Since its inception as one of the nation's first systems of its kind in 2010, Capital Bikeshare has grown from 1,100 bikes at 114 stations in the District

of Columbia and Arlington County, to over 4,300 bikes at 500 stations in five jurisdictions today. Over this time, the number of annual trips taken on the system has more than doubled from 1.5 million per year to over 3.7 million.

In 2017 companies began offering dockless bikeshare options. Dockless bikeshare allows users to pick-up and drop off bikes anywhere without needing to park them in specific bike docks. Some companies have also begun offering electric bicycles and electric scooters using the same systems. Riders can lock and unlock the bikes and scooters using applications on their mobile phones. Though these systems are still in testing phase, the dockless bikes have become quite popular among policy makers and residents. A recent Virginia Tech study suggests that the presence of dockless bikeshare may be helping to address issues of transportation equity since riders on dockless systems are more racially diverse compared to Capital Bikeshare users and are also slightly younger and less affluent.

As Capital Bikeshare increases its reach across the region and additional options such as dockless bikeshare continue to become available, bikeshare use is expected to continue to rise in the coming years. Projected population and job growth in and around regional Activity Centers, where many destinations are located within bike-able range, is also expected to support additional bikeshare use in the near future.

The Future of Regional Travel

The ubiquity of mobile devices, has created a new paradigm for transportation that is expected to continue into the foreseeable future. Mobile devices have made entirely new types of transportation possible and have changed how people access transportation information. Mobile devices have also altered how transportation agencies track and monitor how all modes of transportation perform. Moving forward, transportation planners expect technology to become more and more pervasive and new products and services to become available.

Technological advances, however, make some aspects of future travel difficult to predict, as certain innovations offer the potential to completely redefine travel throughout the country and region. One such innovation that appears to be just over the horizon is the introduction of autonomous vehicles onto the region's roadways. Though the degree and pace of adoption is still unknown, these vehicles have the potential to completely revolutionize the private and for-hire vehicle markets and vehicle ownership, and ultimately shift land-use patterns if they reduce some of the drawbacks of long-range commutes. They are also sure to impact surface transportation options and mobility overall, with unknown and potentially large impacts on the use of public transportation.

Transportation Demand Management

Transportation Demand Management (TDM) is intended to help people find and use alternatives to driving alone. TDM uses marketing, incentives, and employer-based programs to reduce congestion and improve air quality. Commuter Connections is the TPB's TDM program. The Commuter Connections regional network provides guidance and assistance on commuter services to area residents and employers in the Washington metropolitan region to reduce traffic congestion and emissions caused by single occupant vehicles (SOVs). The outreach mission is to create awareness of SOV alternatives and their resulting benefits, to build the Commuter Connections network as an umbrella resource that provides support services to network organizations and individuals who currently drive alone, and to facilitate those who are seeking to change SOV behavior by providing information about commute alternatives. The Commuter Connections network primarily promotes activities including ridesharing, using transit, bicycling, walking, teleworking, and employer services.

Commuter Connections is the major demand management component of the TPB's congestion management process and it helps support regional air quality goals. Its products and services are provided to member agencies through central program administration, implementation, and monitoring tasks outlined in the annual Commuter Connections Work Program. Approximately 30 independently run programs are members of the Commuter Connections network. Each has its own funding sources, budgets, goals, staff, and operational strategies. Many of the operational logistics are carried out at the local level and are coordinated regionally through subcommittees and ad-hoc groups, which meet both regularly and as needed. This allows for each jurisdictional program to have its own strategic TDM plan based on local resources and needs. The Commuter Connections Subcommittee provides overall technical review and provides input to program services.

The financially constrained element of Visualize 2045 identifies all the regionally significant capital improvements to the region's highway and transit systems that transportation agencies expect to make and to be able to afford through 2045. It also outlines all anticipated spending on the current and future transportation system's operations and maintenance over the same timeframe. Any project that might affect future air quality by adding or removing highway or transit capacity is included in this portion of the plan.

The financially constrained element includes regionally significant projects and programs that seek to efficiently move people and goods using a variety of transportation modes. The investments spelled out in this element aim to meet the region's current mobility and accessibility needs, as well as those that will arise in the future.

Financially Constrained Element and Aspirational Initiatives

Visualize 2045 calls upon local jurisdictions and funding agencies to implement projects, programs, and policies in line with seven aspirational initiatives. These initiatives represent regionally agreed-upon concepts to pursue to help the region attain its goals for the transportation system in the future. In some cases, TPB member jurisdictions are already planning and implementing parts of these initiatives. Others have yet to be planned and funded. The TPB believes that the anticipated growth in travel demand calls for increasing investment in projects, programs, and policies in line with the aspirational initiatives. In future long-range transportation plans, the TPB would like to see more projects, programs, and policies that support the seven endorsed initiatives incorporated into the financially constrained elements.

Bring Jobs and Housing Closer Together

This initiative is focused on achieving a balanced distribution of jobs and housing throughout the region and adding more housing to the region to meet the forecast growth in jobs. Some projects in the financially constrained element do address future land-use assumptions, such as Embark Richmond Highway, which includes plans for complementary new development and rapid transit. While projects in the constrained element do reflect current locally adopted land-use plans, they may not fully complement the balanced distribution of jobs and housing throughout the region envisioned under this initiative. COG's Cooperative Forecasts of Population, Households, and Employment projects that much of the new housing and jobs in the region will be located in regional Activity Centers.

While the strategy of growing in Activity Centers has proven to be effective and holds promise for the future, this initiative calls for more to be done in terms of optimizing the distribution of jobs and housing across jurisdictions and to also bring more housing into the region.

Expand Bus Rapid Transit and Transitways

The financially constrained element includes five new bus rapid transit (BRT) routes in Montgomery County. The endorsed initiative encourages BRT systems to operate fully in dedicated rights-of-way, which these four BRT routes do not entirely do. The constrained element also includes the Crystal City Transitway BRT expansion. This project expands upon the existing Metroway system and results in a route which will run partially on an exclusive right-of-way. Other BRT in the plan includes the Corridor Cities Transitway BRT in Maryland and the Richmond Highway BRT in Virginia, both of which will run in exclusive rights-of-way.

Provide More Telecommuting and Other Options for Commuting

The financially constrained element of Visualize 2045 includes funding for travel demand management programs such as the TPB's Commuter Connections program. Such programs encourage and incentivize telework and transit use through employer-provided subsidies, among other actions. They help push our region to more rapidly adopt alternative transportation strategies to reduce vehicle miles traveled and relieve congestion.

Move More People on Metrorail

The financially constrained element includes plans for expanding capacity on Metrorail by running all 8-car trains during peak hours and making capacity improvements to stations in the system core. These improvements directly support the endorsed initiative. The initiative calls for other core capacity improvements to Metrorail including a new Rosslyn tunnel and station, which are not yet included in the financially constrained element of the plan.

Expand Express Highway Network

Visualize 2045's financially constrained element includes one major project that fully supports this initiative: High-Occupancy Toll (HOT) lanes on the northern portion of I-495 in Virginia. This project includes express toll lanes with toll-free travel for high-occupancy vehicles. Express bus service will also run on the express lanes.

The financially constrained element also includes adding dynamically-priced toll lanes along I-495 in Maryland and I-270. These projects, otherwise known as the "Traffic Relief Plan," support the endorsed initiative by adding express tolling but fall short of fulfilling the calls in the endorsed initiative to add express bus service to connect Activity Centers and to allow for HOVs to travel for free in the express lanes.

Improve Walk and Bike Access to Transit

The financially constrained element includes expanding the network of dedicated bicycle lanes in the District of Columbia which will allow more people to bicycle for their daily trips and connect to Metro and other transit options. This project supports bicycle movement but does not explicitly address the pedestrian experience. For the most part, bicycle and pedestrian improvements are not included in the financially constrained portion of the region's long-range transportation plan because they are typically not large enough to be considered "regionally significant" to impact Air Quality Conformity. Such improvements may also be incorporated into highway or transit projects but not explicitly mentioned in the constrained element. However, Visualize 2045 calls attention to other ways that the TPB promotes and supports improvement of walk and bike access to transit.

Complete the National Capital Trail

The National Capital Trail will circle the region's inner jurisdictions with a fully connected bicycle and pedestrian path separated from motor vehicle traffic. Most of the upgrades to existing trails and new

trails that need to be built in order to complete the National Capital Trail will not fall within the purview of the constrained element of Visualize 2045 because the trails will typically not impact Air Quality Conformity. However, some pieces of the National Capital Trail are related to other projects in the financially constrained element of the plan – once the Purple Line is completed, the portion of the National Capital Trail between Bethesda and Silver Spring, which is currently closed for construction, will be reopened and vastly improved compared to the previous conditions of the trail.

The Congestion Management Process

A Congestion Management Process (CMP) has been a requirement since the 2005 Safe Accountable Flexible Efficient Transportation Equity Act - A Legacy for the Users (SAFETEA-LU) federal legislation. The current Fixing America's Surface Transportation (FAST) Act and its supporting federal regulations fully maintain the requirements of the CMP with additional strategies and options. These legislations and regulations are a basis for the CMP component that is wholly incorporated in the region's long- range transportation plan, Visualize 2045. The CMP component of Visualize 2045 constitutes the region's official CMP, and serves to satisfy the federal requirement of having a regional CMP.

REGIONAL CONGESTION TRENDS, 2010-2015

Based on the results revealed by the I-95 Corridor Coalition Vehicle Probe Project (VPP)/INRIX traffic monitoring, peak period congestion in the Washington region decreased between 2010 and 2012, but more recently has increased moderately.

REGIONAL TRAVEL TIME RELIABILITY TRENDS, 2010-2015

Travelers in the Washington region typically will need to budget about two times of the free flow travel time during peak periods to ensure on-time arrivals. These numbers are based on all directions of travel, therefore for those who traveling in the peak direction would need to even budget more.

Similar to the trends observed in traffic congestion, travel time reliability improved 9.5% between 2010 and 2012 but worsened 9.8 % from 2012 to 2015. The reliability levels in 2014 and 2015 were very close to 2010.

CONGESTION MONTHLY VARIATION

Congestion varies from month to month within a year. Monthly variations of congestion were most noticeable on the Interstate System, followed by the Transit- Significant Roads, the Non-Interstate NHS, and the Non-NHS.

The region overall had increasing congestion from January to May, then decreasing congestion through August. September had the highest level of congestion, after that, congestion kept decreasing for the rest of year. Four of the five investigated highway categories followed this trend. The only exception was the Interstates, on which congestion kept increasing from August to November, reaching the highest level in a year.

CONGESTION DAY OF WEEK VARIATION

Congestion also varies within a week. The middle weekdays - Tuesday, Wednesday and Thursday - were the most congested days of a week. During these three weekdays, the AM Peak had almost identical congestion while the most congested PM Peak occurred on Thursday, followed by Wednesday and Tuesday.

Monday and Friday had unique traffic patterns. Monday morning's traffic was lower than that of the middle weekdays but higher than Friday; Monday afternoon had the least congestion among weekdays. Friday morning had the least congestion in all weekdays; Friday afternoon's congestion was almost as

bad as the normal weekdays, but it came about one hour earlier without ending earlier - expanded congested time period.

Weekend days had the lowest traffic in a week and Sunday was even lower than Saturday. During these two days, mid-day traffic (12:00 - 3:00 pm) was the highest.

Congestion on Transit and Other Systems TRANSIT

The National Capital Region possesses a multimodal and diverse transit system, including Metrorail, commuter rail and a variety of bus operations. Congestion on the transit system is always one of the concerns of the CMP.

Congestion on the region's roadway network often has an impact on transit systems, such as rail and bus. The identified congested locations, especially those on the Washington Metropolitan Area Transit Authority's (WMATA) Priority Corridor Network and the Transit-Significant Roads as identified by the TPB's Regional Public Transportation Subcommittee are usually also bottlenecks for bus transit. Relieving roadway congestion will directly have a positive impact on bus operations, such as reducing travelers' delay, reducing bus operations cost, improving bus reliability and increasing ridership. Congestion can also be an issue within transit. If the demand for buses, rail and train is high and the capacity cannot keep up with that demand, then transit becomes overcrowded. Metrorail crowdedness are often observed during rush hours along certain stations, such as the maximum load stations recorded in the WMATA's Vital Sign Reports, e.g., Orange Line Court House station and Red Line Gallery Place station. Congestion also exists within certain transit stations, especially multimodal transit centers, e.g. Union Station. Station congestion is a congestion of different nature, mostly due to limitations in design and circulation as well as ridership growth. Momentum, Metro's strategic plan for 2013-2025 found that there are crowded conditions at peak periods today; without rail fleet expansion, most rail lines will be even more congested by 2025.

CORDON COUNTS

The cordon count program originated from the desire to assess the impact of the construction of the region's Metrorail system starting in the late 1960's. Thus, a cordon line around the Central Business District (the "core") was determined by the inbound point at which there were more destinations (alighting from transit buses) than origins (loadings onto transit buses). The most recent cordon count study is the 2013 Central Employment Core Cordon Count of Vehicular and Passenger Volumes. Data were only collected from 5:00 A.M. to 10:00 A.M. The study found:

Total inbound travel decreased in the A.M. peak period from about 463,000 person trips in 2009 to 446,000 in 2013. Trips crossing the revised cordon in 2013 were about 435,000.

Inbound peak period transit trips were about 211,000, little changed from 2009. Transit trips crossing the revised cordon line were about 197,000.

Person trips by automobile in 2013 were about 236,000, a decrease of about 21,000 from 2009. Most of the decrease in person trips were in multiple occupant vehicles (2 or more persons per vehicles), which declined by about 21,000 trips.

The number of automobiles entering the Central Employment Core in the A.M. peak period has declined from 203,000 in 2009 to about 192,500 in 2013. For the five-hour monitoring period, the decline was similar in absolute terms, from about 273,000 in 2009 to 263,000 in 2013.

Traffic volumes crossing the revised cordon line were only slightly higher, but person trips were lower.

About 3,500 bicycles entered the Central Employment Core in the A.M. peak period. In the full five hour monitoring period, almost 5,000 trips by bike were observed.

HOV FACILITIES

COG/TPB has conducted surveys on the high occupancy vehicle (HOV) freeway facilities in 1997, 1998, 1999, 2004, 2007, 2010 and 2014. The most recent survey found that:

All of the HOV lanes in spring 2014 were observed to carry more persons per lane during the HOV restricted periods than adjacent non-HOV lanes except on US 50;

Most of the HOV lanes provide savings in travel times when compared to non-HOV alternatives, especially the barrier separated HOV lanes in the I-95/I-395 corridor in Northern Virginia;

However, the performance of the concurrent-flow HOV lanes in the I-66 lanes (outside I-495) and along I-270 were at certain points between 10 and 25 MPH slower than adjacent non-HOV lanes, as well as sections of the exclusive I-66 HOV facility inside I-495 (staff examined data from the Vehicle Probe Project (VPP) and found recurring congestion along I-66 eastbound from the Dulles Connector Road to a point between Sycamore Street and Va. 120 [North Glebe Road]); and

Average auto occupancy in 2014 was little-changed from 2010, even though the HOV lanes in Northern Virginia continue to exempt vehicles with "Clean Air" registration plates from the HOV requirement.

PARK-AND-RIDE FACILITIES

There are over 160,000 parking spaces at nearly 400 Park & Ride lots throughout the Washington/Baltimore Metropolitan areas where commuters can conveniently bike, walk or drive to and join up with carpools/vanpools or gain access to public transit. According to the region's Commuter Connections program: two thirds of Park & Ride Lots have bus or rail service available; parking is free at 89% of the Park & Ride Lots; and more than 25% of Park & Ride Lots have bicycle parking facilities.

The 2008 Metrorail Station Access & Capacity Study found Metro presently owns and operates 58,186 parking spaces. On an average weekday, almost all of those spaces are occupied, especially stations at East Falls Church, Van Dorn Street, Naylor Road and Branch Ave. Only a handful of stations-White Flint, Wheaton, College Park-U of MD, Prince George's Plaza, and Minnesota Ave-have a substantial amount of daily unused available capacity.

In 2009, WMATA and VDOT completed the Feasibility Study of Real Time Parking Information at Metrorail Parking Facilities (Virginia Stations), evaluating the feasibility of a real-time parking application for the Metrorail system, with the purpose of improving operations efficiency, reducing operating costs by providing guidance to available parking spaces, encouraging more transit usage and reducing congestion.

Future Congestion

The 2015 CLRP Performance Analysis forecasts the outlook for growth in the region. One of the cornerstones of plan performance is the forecasting of future congestion. The plan performance looks at where in the region congestion will occur in the future and compares current congestion to future congestion. It looks at criteria that may affect congestion, such as changes in population, employment, transit work trips, vehicle work trips, lane miles, and lane miles of congestion. The analysis also breaks down lane miles of congestion into core, inner suburbs, and outer suburbs, providing information on where, generally, the most lane miles of congestion can be found in 2040 compared to 2015.

From 2015 to 2040, the region is forecast to be home to 24% more residents and 36% more jobs in 2040. To accommodate growth, 7% more lane miles of roadway and 14% more transit rail miles are planned to be constructed. The total number of trips taken is expected to increase by 23%, while transit, walk, and bike trips together are expected to increase at a faster rate than single driver trips. The overall amount of driving (VMT) is expected to grow by 22%. This is slightly less than forecast population growth, which means that VMT per capita is expected to drop by 2%. The increase in demand on the roadways is forecast to out-pace the increase in supply, leading to a significant increase in congestion.

National Comparison of the Washington Region's Congestion

The Washington region is among the most congested metropolitan areas in the nation. Based on annual hours of delay per auto commuter, the region was the most congested city in the nation in Texas A&M Transportation Institute's 2015 Urban Mobility Scorecard (for 2014 data). However, using a different methodology based on annual average hours wasted in traffic, INRIX ranked the Washington region the 2nd in 2015. And based on extra travel time compared to free flow conditions, TomTom ranked the region the 8th in the United States in 2015.

Congestion Management Strategies

The CMP has been playing an important role in developing strategies, including strategies in association with capacity-expanding projects, to combat congestion or mitigate the impact of congestion. The CLRP and TPB member agencies have pursued many alternatives to capacity increases, with considerations of these strategies informed by the CMP. Implemented or continuing strategies include demand management strategies and operational management strategies, as shown in Figure 8. It should be noted that although strategies are divided into two categories for reporting purposes in this document, demand management and operational management strategies should be designed and implemented to work in cooperation.

DEMAND MANAGEMENT STRATEGIES

Demand Management aims at influencing travelers' behavior for the purpose of redistributing or reducing travel demand. Examples of TPB's demand management strategies include:

Commuter Connections Program - Including strategies such as Telework, Employer Outreach, Guaranteed Ride Home, Live Near Your Work, Carpooling, Vanpooling, Ridematching Services, Car Free Day, and Bike to Work Day.

Promotion of local travel demand management - Local demand management strategies are documented in the main body of the CMP Technical Report.

Public transportation improvements - The Washington region continues to support a robust transit system as a major alternative to driving alone.

Pedestrian and bicycle transportation enhancements as promoted and tracked through the Bicycle and Pedestrian Planning program - The number of bicycle and pedestrian facilities in the region has increased in recent years; the regional bikesharing program, Capital Bikeshare can be found in Washington, D.C., Arlington County, the City of Alexandria, and Montgomery County, MD. There are plans to expand Capital Bikeshare to locations County. The City of College Park began its own bikeshare program in 2016.

Car sharing - Local governments work with private companies to make the region's car sharing market viable.

Land use strategies - Including those promoted by the Transportation-Land Use Connections (TLC) Program.

Key Findings of the 2016 CMP Technical Report

Congestion - Peak period congestion in the Washington region decreased between 2010 and 2012, and then increased moderately in 2014 and 2015, but still remaining lower than that of 2010. The Travel Time Index dropped 6.7% between 2010 and 2012, but climbed 3.3% between 2012 and 2015. The percent of congested road miles was 21% in 2010, 11% in 2012, and 17% in 2015.

Reliability - Travel time reliability in the region improved between 2010 and 2012, and then worsened in 2014 and 2015, almost back to the 2010 level. The Planning Time Index decreased (improved) by 10% between 2010 and 2012, but increased (worsened) by 10% between 2012 and 2015.

Bottlenecks - Three new bottlenecks emerged on the east side of the Beltway in the 2016 CMP Technical Report that were not on the list in the 2014 Report: I-495 inner-loop at MD- 214, I-495 outer-loop at US-50, and I-495 inner-loop at MD-4. Additionally, I-95 at VA-123/Exit 160 added two new Top 10 bottlenecks, one on each direction. The Beltway at the American Legion Bridge added a new, outer-loop bottleneck, making both directions to the Top 10 list. I- 270 SB at the spur and I-66 WB at VA-234 remained in the Top 10 list.

Travel Demand Management - Travel demand management continues to be an important tool for day-to-day congestion management and played a key role in congestion management during the June 2015 Papal visit and the March 16, 2016 Metrorail shutdown. The Commuter Connections program remains the centerpiece to assist and encourage people in the Washington region to use alternatives to the single-occupant automobile. The transit system in the Washington region serves as a major alternative to driving alone - transit mode share is among the highest several metropolitan areas in the country.

Regional Transportation Operations Coordination - The Metropolitan Washington Area Transportation Operations Coordination (MATOC) continues to play an important role in coordination and communicating incident information during both typical travel days and special events such as severe weather and construction work.

Real-time travel information - The increasing availability of technology to monitor, detect, and evaluate travel conditions allows operators to make changes to the transportation network through active travel demand management, traffic signal optimization, and integrative corridor management. For travelers, real-time traffic and transit information are available from a number of sources through mobile applications and mobile versions of websites. Social media provides a mutually beneficial direct connection between transportation providers and users. Mobile applications related to non-auto modes, such as bikesharing and carsharing, allow travelers to be flexible with their mode choices.

Variably Priced Lanes (VPLs) - VPLs provide additional options to travelers in the region. Maryland Route 200 (Intercountry Connector (ICC)) was fully opened between I-370/I-270 and US-1 in November 2014; a Before-and-After study identified the ICC improved its adjacent area's traffic by 3-4%. The 495 Express Lanes opened on the Virginia side of the Capital Beltway in November 2012; there were 42,000 average workday trips in the June 2015 quarter, up from 35,000 in the June 2014 quarter, and 29,000 in the June 2013 quarter. The 95 Express Lanes in Northern Virginia opened in December 2014 which had 45,000 average workday trips in the quarter ending in June 2015.

Walking and Bicycling - Walking and bicycling continue to grow in the region in part due to bikesharing and carsharing options and increasing connectivity in the bicycle and pedestrian network.

ALTERNATIVE TRAVEL MODE PROFILES AND SUPPORT PROGRAMS

PRODUCT PROFILES

1. Carpools and Vanpools
2. Transit
 - a. Summary of Bus Activity
 - b. Summary of Rail Activity
3. Telework
4. Bicycling/Walking
5. Bike Sharing
6. Car Sharing

SUPPORT INFRASTRUCTURE AND PROGRAMS

1. HOV Lanes/Express Lanes
2. Park and Ride Lots
3. Guaranteed Ride Home
4. Commuter Benefit Programs (Commuter Choice, SmartBenefits)
5. Clean Air Partners
6. Rewards

CARPOOLS AND VANPOOLS

Product Profile

Relatively speaking, carpools and vanpools are a highly used form of alternative commuting in the Washington, DC region. Beyond the shared cost savings of maintaining and operating a vehicle, another tremendous benefit is the time savings of HOV/Express lanes, for those who have access. An additional personal benefit is reduced stress from not driving every day.

Commuter Connections assists commuters in finding suitable ridesharing arrangements through online Ridematching. Commuters who set up a free account with Commuter Connections may sign up for free Ridematching. This process provides an instant list of matches of possible rideshare partners. The tool indicates potential carpool/vanpool partners as drivers or passengers, and the same or similar route and schedule. In FY 2107, Commuter Connections unveiled CarpoolNow, a real-time ridesharing mobile app.

Many of the vanpool operators, including vRide, Enterprise and ABS vanpools, accept SmartBenefits® as fare payment. Vanpools typically travel greater distances than carpools. The majority of vanpools in the Washington region originate in Virginia, mostly in Prince William, Spotsylvania, and Stafford counties. The primary destinations of vanpools are the District of Columbia, Arlington, and Fairfax County. There are several vanpool operators in Virginia, and a large number of single owner operated vans. In the Commonwealth of Virginia, the AdVANtage Vanpool Self-Insurance program is offered through the Division of Risk Management (DRM), a division of the Virginia Department of the Treasury. A vanpool self-insurance pool is a group of vanpool owners who contribute annual membership fees used to self-insure their commuter vanpools. Through the pool, vanpool owners share common risks via a combination of self-funding and insurance.

In FY2017, Commuter Connections introduced CarpoolNow, a free mobile app for commuters in the Washington, D.C. region providing on-demand carpooling, connecting drivers offering a ride with passengers seeking a ride. The mobile app displays routes, estimated pick-up times, and confirms pick-up and drop-off locations. During FY2018, Commuter Connections exclusively worked with Howard County, MD through a Federal Transit Administration (FTA) grant to promote the CarpoolNow mobile app along with a driver incentive to commuters living or working in that jurisdiction. In FY19, CarpoolNow driver incentive will be offered and promoted within the Washington, DC metropolitan region.

Current Strategies

- Encourage ridesharing as solution to saving time and gas expenses.
- Encourage greater carpools and vanpools through placement of highway signs with the Commuter Connections 800 number and web site in Maryland, Virginia and the District of Columbia.
- Promote Commuter Connections' Ridematching software and CarpoolNow app through social media, direct mail, and value-added media.
- Increase commuter awareness on the 'Pool Rewards carpool/vanpool incentive program, particularly during the I-395 Express Lanes and I-66 (outside the Beltway) construction periods.
- Increase commuter awareness that Fairfax and Prince William County offers personal property tax relief for vans used for not-for-profit ridesharing purposes.
- Increase commuter awareness that SmartBenefits can be used for vanpool.
- Increase commuter awareness that all Northern Virginia rideshare agencies offer temporary financial assistance to new vanpools or vanpools experiencing emergency loss of ridership that threatens the survival of the ridesharing arrangement through the Van Start/Van Save program.

- Increase commuter awareness that GWRideconnect redeems SmartBenefits for all vanpools in the Fredericksburg region.
- Increase commuter awareness that Prince George's County offers 100 percent subsidy for first month, 50 percent for second month and 25 percent for third month of newly formed vanpools with a minimum of eight passengers in a 12-15 passenger van, or with five passengers in 9 passenger vans.
- Increase commuter awareness that Frederick County provides start-up funds for new vanpools for the first year of operation.
- Increase commuter awareness about the Commuter Connections mobile app that allows for direct account access.
- Educate commuters that there are vanpool incentive programs available through 'Pool Rewards and Vanpool Alliance.
- Greater Richmond Transit Company (GRTC) partners with RideFinders, a division of GRTC and a regional non-profit agency, to provide R-VAN service, which helps start vanpools by matching at least seven people to share the ride and commuting cost to and from work.

Strengths

- Cost savings from volatile gas prices, and lower maintenance costs due to less wear and tear on personal vehicles.
- It is free and easy to set-up an account with Commuter Connections for Ridematching services and to use the mobile app.
- If using HOV and Express lanes, substantial time and cost-savings may be enjoyed.
- Addresses the suburb-to-suburb commute more efficiently than public transit.
- Reduces maintenance of parking lots or leasing costs for employers.
- Employers can give \$255 tax-free subsidy to vanpoolers each month via SmartBenefits® or other Transit Voucher.
- Reduces the stress of daily driving.
- Allows commuters to relax, read, or use lap top during the commute.
- GRH supported.
- The vanpool riders determine their route and schedule based on their needs, making vanpooling very flexible.
- Reduces the need for families to have an additional vehicle.
- Through the 'Pool Rewards program, new carpoolers receive a cash incentive of \$130 over a 90-day period, and newly formed vanpools for receive \$200 a month through 'Pool Rewards.
- Vanpool Alliance introduced a supplementary pilot program incentive for new qualifying vanpool applications through April 1, 2020. This will be an increase over the existing \$200 base payment for a total of \$400 per month, maximum 24 months.
- An extra \$100 bonus of is being offered through 'Pool Rewards for carpoolers travelling the I-66 and I-395 corridors, outside the Beltway.
- CarpoolNow will be offering a \$10 per trip driver incentive, up to \$600 for those giving carpool rides to and from work in the Washington, DC metropolitan region.

Deficiencies

- Perceived as an option that takes away freedom and personal space from commuters.
- Some SOVs do not feel the cost savings are worth the effort of picking up a commute partner or vanpool.
- Some feel they need their vehicle for use during the workday.
- Difficult to recruit vanpool drivers.

- Schedule inflexibility.

Promotional Strategy

- Promote Commuter Connections' Ridematching software and mobile apps.
- Promote GRH more to encourage greater number of carpools and vanpools.
- Promote commute cost savings for carpools and vanpools.
- Target large employers, especially government agencies and defense contractors with transportation fairs.
- Promote ridesharing as a car-lite alternative through the Car Free Days promotion.
- Focus on suburban employers to fill the commute needs of the suburb-to-suburb commuters.
- Work with employers moving to or within suburbs from an area that was well served by transit. Encourage these commuters to maintain their alternative commute with ridesharing options.
- Focus on employer-based vanpool promotions in the federal and defense contractor sector.
- Promote ridesharing opportunities in HOV/Express Lane corridors with regard to time savings, particularly with the new Express Lanes being built on I-395 (inside the Beltway) and I-66 (outside the Beltway).
- Promote preferential parking programs for carpools and vanpools through the Commuter Connections newsletter and through the Employer Services program.
- Promote 'Pool Rewards carpool/vanpool incentive project.
- Promote formation of carpools and vanpools for free use of the Express Lanes in Virginia.

Challenges

- Violation rates in all HOV/Express lane corridors.
- "Empty lane syndrome".
- Congested HOV lanes will diminish advantage of time savings.
- Beyond the cost of gas, SOV commuters may not understand the real depreciation costs of driving alone such as the increased mileage and wear and tear on the vehicle.
- Low levels of marketing and advertising to commuters.
- Difficulty of recruiting new vanpool drivers.
- Rising vanpool insurance costs.
- Low level of participation in 'Pool Rewards.
- Obtaining critical mass to use the CarpoolNow real time Ridematching mobile app.

TRANSIT

The Washington metropolitan region has a solid presence of bus and rail providers offering a range of transportation and shuttle services. In addition, the region has two commuter rail services, MARC and VRE. The major provider of both bus and rail service is the Washington Metropolitan Area Transit Authority (WMATA), which operates both Metrobus and Metrorail in the District of Columbia and surrounding jurisdictions in Maryland and Virginia. Metrorail currently operates on 118 miles of track and serves 91 stations and Metrobus operates 175 bus lines.

Metro's Silver Line began operation in July 2014 connecting the Tysons Corner and Reston areas of Fairfax County to the regional Metrorail system. Phase 2 Silver Line construction extending from Wiehle Ave. - Reston through Dulles Airport to Loudoun County is expected to be complete in 2020.

Product Profile

Within the Washington/Baltimore region there are several transit providers, namely:

- Alexandria Transit Company (DASH)
- Arlington Transit/ART
- City of Fairfax CUE bus
- DC Circulator
- Fairfax County's Connector bus service, with Metrobus operated REX and TAGS service
- Loudoun County Transit
- Montgomery County Ride On
- MDOT MTA Local Bus, Light Rail, Metro Subway, MARC Train and Commuter Bus
- Prince George's County *TheBus*
- PRTC's OmniRide, Metro Direct, OmniLink and Cross County Connector
- TransIT Services of Frederick County
- Virginia Railway Express (VRE)
- WMATA- Metrobus and Metrorail

The factors influencing transit use include:

Automobile-Related

- Auto Availability
- High gas prices
- Operation and maintenance costs of auto, including gasoline costs & availability
- Parking availability and cost
- Impact of auto on the environment
- Cultural dominance of the automobile

Travel-Related

- Connectivity with other transit modes
- Convenience and comfort of transit
- Distance from origin and destination to transit station/stop
- Mode of travel to transit station
- Number of mode changes necessary to reach destination
- Number of transfers necessary to reach destination
- Reliability
- Time of travel

- Transit fares
- Travel time to destination using transit
- Safety

Human-Related

- Knowledge of transit system (i.e. schedule and routes)
- Location within urban area
- Perception/Image of transit to public
- Access to multilingual information. (i.e. schedules and routes)

Transit System-Related

- Connectivity with other modes including shuttles and other first mile/last mile strategies
- Convenience and comfort of transit
- Number of mode changes necessary to reach destination on transit
- Number of transfers necessary to reach destination on transit
- Parking availability at transit stations
- Parking costs at transit stations
- Proximity to residential
- Proximity to retail and/or tourist attractions
- Proximity to employment sites, services, facilities
- Security/Safety
- Ability of non-Commuters to use transit to reach nearby medical, shopping, recreational and other opportunities and to connect to main-line transit routes
- Cost-effectiveness of transit
- Availability of bikeshare and carshare stations by major transit stops
- Paratransit accessibility

Payment-Related

- Transit fare structures
- Payment method for transfers
- Ability to transfer between transit systems
- Uniformity of fare payment and transfer procedures in metropolitan area
- Methods to encourage fare pre-payment among all income and demographic groups including the un-banked
- Methods to enable off-board fare-payment
- Methods to discourage adding value to pre-payment systems on-board buses

Transit Information-Related

- Availability to receive estimated arrival times of buses by route by bus stop electronically
- Ability to obtain transit information (routes, stops, schedules, fares and other policies) in varying media (paper, electronic)
- Ability to obtain transit information in major languages used locally
- Ability to obtain transit information in accessible formats for people with sensory disabilities

Pedestrian & Bicycle Access-Related

- Directness of pedestrian path of travel between transit stops and trip origins or destinations.
- Accessibility of pedestrian path of travel between transit stops and trip origins or destinations.

- Safety and accessibility of transit stops.
- Provision of passenger amenities at transit stops.
- Provision of bike share stations by major transit stops and regional activity centers.
- Provision of secure bike parking at transit stations (e.g. Metro Bike & Rides).
- Ability to safely cross major intersections or parking lots along path of travel between transit stops and trip origins or destination.

Residents and visitors may choose public transit that is convenient and cost effective. However, they must have a sufficient comfort level with and understanding of how to use transit to get to and from their destination safely and in a timely manner. The factors listed above provide reference points useful to align and promote public transit. A targeted approach focusing on residential neighborhoods and employment centers that are close to bus stops and rail stations with a SmartBenefits promotion would be most effective. Additionally, better transit information to increase comfort level for those deciding to take transit would be of benefit, particularly for limited English proficiency (LEP) groups.

SUMMARY OF BUS ACTIVITY	BUS LINES	CAPACITY	TYPE OF SERVICE	ROUTES CLOSE TO CAPACITY	ROUTES IN NEED OF RIDERSHIP INCREASES
WMATA System Total <i>July 2018</i>	159 Lines	Range of seats per bus between 27-66 <i>(assumes 39.5 avg seats /bus)</i> 14,739 Wkdy Trips 582,175 Wkdy Seats	Peak and Non-peak	46 Lines	45 Lines
WMATA DC Service <i>July 2018</i>	67	Range of seats per bus between 27-66 7780 Wkdy Trips 307,294 Wkdy Seats	Peak and Non-peak	30N,30S; 32,36; 33; 39; 42,43; 52, 53,54; 63; 70; 79; 80; 90,92; 96; B2; H1; H3, L1; S1; S4; U5,6; V2,V4; W3; W4; X1; X2; X9 [25 lines]	60; 62; 74; B8,9; D2; E2; E6; G2; G9; H6; K2; M4; U4; U7; W5; X8 [17 lines]
WMATA MD Service <i>July 2018</i>	53	Range of seats per bus between 27-62 3826 Wkdy Trips 151,119 Wkdy Seats	Peak and Non-peak	86; C2,4; C8; D12,14; F4; F14; G14; K6; P12; R1,2; T18; Y2,7,8; Q2,4; Z6,8 [14 lines]	B21,22; B27; B29,31; B30; C12,14; C11,13; C26,28; F12; H13; NH2 [12 lines]
WMATA VA Service <i>July 2018</i>	39	Range of seats per bus between 27- 42 3,133 Wkdy Trips 123,761 Wkdy Seats	Peak and Non-peak	3Y; 7Y; 7W; 11Y; 16A,C 16Y; 28A 7 lines]	3T; 4A,B; 7P; 8S; Metroway; 10N; 15K; 17B,M; 18J; 22A,F; 28F; 29C; 29W; S80,91 [15 lines]

TRANSIT AGENCY	BUS ROUTES	CAPACITY	TYPE OF SERVICE	ROUTES CLOSE TO CAPACITY	ROUTES IN NEED OF RIDERSHIP INCREASES
Alexandria Transit (DASH)	12	28-40	Peak and non peak HOV: AT3, AT4	AT8, King Street Trolley	AT3-4, AT7, AT9
Arlington Transit (ART)	15	Seated: 19-30 Seated and Standing: 28-45	Fixed Route	41, 42, 45, 87 (peaks)	52, 53, 61, 62, 74, 75, 77, 87 (off-peak)
DC Circulator	6	Seated: 27-42 Standing: 37-54	Fixed route; 142 stop locations	Crowded during peak commuter rush hours; National Mall route crowded during Cherry Blossom season	Eastern Market – L’Enfant Plaza National Mall
Fairfax Connector	86	29-39	Fixed Route	151, 159, 171, 394, 395, 401, 402, 480, 599, 950	422, 432, 461, 507, 554, 556, 558, 559, 724 =
Fairfax CUE	4	31-32 seated and 25-30 standing	Peak and non-peak (7 days a week)	Gold 1 and Green 1 (peak)	Gold 2 and Green 2
Loudoun County Transit	4 commuter routes and 15 local fixed routes	Commuter buses have 55 seats and local fixed buses seating varies	Commuter routes are AM & PM only; local fixed routes are all day (7 AM to 7 PM and a few go till 10 PM)	Most commuter routes traveling into DC are at capacity	Routes serving Loudoun employment sites and the local fixed routes

MTA Commuter Buses	37 routes in Maryland	55	Total trips – 307(am), 317(pm), 15(midday) am & pm peak service, with a couple off peak trips, and midday trips	Some trips on routes #640 & #650	201, 202, 203, 204, 210, 215, 320, 850
MTA Commuter Buses by region					
Baltimore	7 routes	50-55 seats, 74 daily trips			
Central Maryland	6 routes	50-55 seats, 103 daily trips			
Washington (East, South and North)	24 routes	50-55 seats, 460 daily trips			
MTA Local, Quick Bus and Express Bus Total bus routes	65	40-66 seats, 5,223 weekday trips	Local Radial, Cross Town, Feeder, and Circulator lines. Quick Bus (Limited Stop) and Express Service	003, 005, 008, 010, 013, 015, 016, 019, 020, 022, 023, 035, 046, 047, 048, 052, 054, 077, 091, 105	See comments in Local, QB, and Express
MTA Local	48	40-66 seats, 4,677 weekday trips	Radial, Cross Town, Feeder, and Circulator Lines	003, 005, 008, 010, 013, 015, 016, 019, 020, 020, 023, 035, 052, 054, 077, 091	007 – competes with Metro and other lines with more frequency, 009 – competes with Light Rail across a portion of the route and serves northern Baltimore County with only 2

					transfer opportunities (Light Rail & 008) 011 – serves less dense Charles Street corridor
MTA Quick	4	40-66 seats, 368 weekday trips. 46 & 47 operate Weekday Peak Hour Only. 48 operates Weekday, Saturday, 40 operates Weekday, Saturday, and Sunday	Limited Stop, Radial Service providing service to major trip generators, points of interest, and transfer opportunities	046, 047, 048	N/A – All lines produce as intended and provide valuable support to the underlying route alignment(s)
MTA Express	13	40-66 seats, 178 weekday trips	All Peak Hour Weekday Service, except 102 & 106 that operate all day. 102 also operates on Saturday	105	102, 104, 106, 107, 160, 164 – 102 & 106 were introduced June 2016 and ridership is developing. 104 and 107 are infrequent and have an attractive underlying service with no express fare premium. This may be an impediment to ridership growth. On the east side, the 160 shares some alignment with the 040 (a Quick Bus with no express premium), which may impede ridership growth

MTA BALTIMORELINK network redesign					
MTA BaltimoreLink Bus Network	65 routes	40-66 seats, 5,640 trips per weekday	See breakout by service type below	N/A	N/A
MTA CityLink	12	40-66 seats, 2,018 trips per weekday	24 hours/7 days a week	N/A	N/A
MTA Express BusLink (3 launched, 1 enhanced in June 2016, remaining implemented June 2017)	11	40-66 seats, 174 trips per weekday	As currently operated	N/A	N/A
MTA LocalLink	42	40-66, 3,448 trips per weekday	Spans from approximately 16 hours to 24 hours depending on ridership demand	N/A	N/A
Montgomery County Ride On	78 routes	19-43 (seated) 28-64 (standing)	Peak and Non-peak service HOV: Rt. 70, 71, 74, 78, 79, 100	Many routes have capacity issues at some time during their operating day	7, 19, 31, 44, 52, 66, 67, 81
OmniRide Express/ OmniRide Metro Express	13 routes from Prince William County/Manassas area to DC/ Pentagon/ Arlington/Tysons/ Mark Center. 3 routes to Metrorail stations.	43-57	Commuter Service Service to Metrorail Stations	Most commuter routes	Tysons Corner Mark Center Manassas- Pentagon

OmniRide Local/ OmniRide Cross County Connector	6 OmniRide Local routes 1 cross county route	29-45	Local	Currently reviewing Local routing structure to increase ridership	Most Local routes
Prince George's <i>TheBus</i>	28 TheBus Routes	26-32	Peak and Non-peak service	16, 18, 20, 21, 21X, 24, 30, 32, 14, 26, 33, 51 are over capacity 13, 28 are at/near capacity	13, 22, 23, 25, 27, 35s, 36
TransIT Services of Frederick County	10 Connector Routes 7 Commuter Shuttle Routes	16-29	Local, Commuter	#10 & #40 Connectors are crowded during peak rush hours	Rt. 85 shuttle & #80 Connector

Assets (for bus only)

- Bus is the least expensive commute mode for customers
- Attractive alternative to commuters without vehicles
- Private commuter bus services supplement publicly-owned transit
- Convenient to many home destinations, shopping centers and business centers
- Benefits from the GRH program
- Faster than SOVs when route includes HOV/Express or BRT lanes
- Allows passengers to relax
- Commuter Stores, plus on-line ability to purchase bus fares via CommuterPage.com; Montgomery County's web site, and Fare Media by Mail.
- Bike racks are on all Metro and local bus systems
- Availability of real-time bus arrival information systems
- SmarTrip® available on all regional bus systems. Pass capability soft implementation during the year

Deficiencies

- Commuter still has to get to the bus stop and final destination
- More parking required at some bus stops
- SOVs perceive as nuisance and source of pollution (idling)
- Slow with multiple stops; typically travel in same congested lanes as other traffic
- Considered as an inferior mode of transportation by SOVs; negative stigma
- Public transit is oriented to downtown commute pattern. Some suburban systems (e.g. Montgomery County) have bus system oriented to feed Metrorail stations and to serve other Activity Centers.
- Little service for Beltway users
- Rapid ridership growth can create overcrowding
- Continuity of service not guaranteed: low ridership routes can be reduced or discontinued

Prospects

- Conversion to alternative fuels to increase its environmentally friendly image
- Ability to multitask, i.e. work/study, network and listen to music on the bus
- Prime mode of travel for DC residents
- SmarTrip® card and SmartBenefits® subsidies

- Use of queue-jumpers and other prioritization methods, including some Bus Rapid Transit in the region
- Use of smaller buses for increased flexibility in routes for residential areas
- Mobile Ticketing solutions, Frederick County TransIT

Challenges

- Fare increases
- Lack of information/understanding by prospective new riders of routes, schedules
- Fare Payment Methodologies that slow bus travel times (e.g., adding value to SmarTrip on buses)
- Lack of funding for operations and expansion
- Limited Parking
- Limited routes
- Overcrowding
- Lack of available and appropriately zoned land for maintenance and parking facilities
- Lack of funding to right-of-way (ROW) to create dedicated bus-only lanes
- Impacts on existing developed areas where additional ROW is acquired for dedicated lanes
- Decreased ridership to other commuting options such as telework, TNC's bikesharing and e-scooters.

SUMMARY OF RAIL ACTIVITY

PROVIDER	RAIL TYPE	ROUTES	CAPACITY	ROUTES TO MARKET
VRE	Commuter	Manassas Fredericksburg	Close to Capacity	Rippon & Woodbridge, and Burke (stations with available parking).
MARC (MTA)	Commuter	Brunswick Line Camden Line Penn Line	MARC stations with excess parking available: Brunswick, Monocacy, Point of Rocks; Dorsey, Savage, Muirkirk Perryville, Bowie State. Parking for all other stations are at or over-capacity.	1) Brunswick Line (Martinsburg, WV and Frederick, MD to Union Station) 2) Camden Line (Baltimore to Union Station) 3) Penn Line (Perryville, MD to Baltimore to Union Station)
Metro (MTA)	Subway	Owings Mills to Johns Hopkins Hospital	Not at capacity	Northwest Baltimore Corridor: Owings Mills, Downtown. Johns Hopkins Hospital.
Light Rail (MTA)	Commuter	1) Hunt Valley to BWI Airport 2) Glen Burnie to Timonium/Hunt Valley (Off-Peak) 3) Camden to Penn Shuttle	Not at capacity	Hunt Valley to Downtown to Camden Yards to BWI. Glen Burnie to Downtown to Timonium. Camden Yards to Penn Station
AMTRAK	Regional/ Commuter	Northeast Corridor	Not at capacity	Northern Virginia District of Columbia Southern Maryland Baltimore - BWI
Metro (WMATA)	Subway	Blue, Green, Orange, Red, Silver, Yellow lines	Capacity during peak periods	District: (all quadrants) Maryland: Prince George's and Montgomery Counties Virginia: City of Alexandria, Arlington and Fairfax Counties

Assets (for Rail only)

- Commuter Stores provide an excellent sales vehicle for merchandise and tickets
- Bi-level coaches on VRE and MARC Train systems
- Clean
- Quiet cars and bathroom facilities available on commuter trains
- Food and beverages allowed on commuter trains
- Free parking at most commuter rail stations
- Convenient: leave the driving to someone else
- Favorable cost when compared to driving alone long distances
- GRH program makes more accessible during non-rush hour
- In some cases, rail is faster than driving alone
- Reliable (not affected by congestion)
- Transit Link Card between Metro, MARC and VRE makes it easier and economical to combine trips
- Weekend service on MARC on the Penn line between DC and Baltimore
- AMTRAK is accepting MARC and VRE tickets with a small upgrade fee, reducing burden on sometimes crowded commuter trains

Deficiencies

- Commuter rail has limited schedule (including some limited off-peak service)
- Limited or lack of free parking
- Overcrowding on some lines
- MARC Brunswick and Camden lines frequently susceptible to heat orders during summer months; reduces maximum speed by 20 mph. Occurs when temperatures are 85° or greater, or a 25-degree temperature swing within a 24-hr period.

Prospects

- Provides attractive transportation option to commuters of all income ranges
- Provides an opportunity for riders to relax during the commute
- Full size bikes on certain cars
- Metro Safety Commission forming to provide enforceable oversight to repair safety concerns proactively

Threats

- Fare increases
- System delays and bad press has beleaguered transit in recent years
- Reaching and exceeding capacity is a major concern for VRE
- Safety concerns
- Loss of transit ridership due to Metro's SafeTrack
- Commuter rail was susceptible to flash flooding during exceedingly stormy summer of 2018

TELEWORK

Teleworking, also called telecommuting, has experienced tremendous increase over the last ten years, more than doubling in the number of workers. Commuter Connections' State of the Commute (SOC) Survey defines teleworkers as "wage and salary employees who at least occasionally work at home or at a location other than their central work place during their normal work hours." According to the 2016 SOC report, 32 percent of regional commuters said they teleworked an average of 1.4 days per week, a modest increase from the 2013 level of 27percent. This percentage equates to approximately 887,000 teleworkers in the region.

The 2016 State of the Commute (SOC) survey found that an additional 18 percent of commuters who do not telecommute today "could and would" telecommute if given the opportunity. These respondents said their job responsibilities would allow them to telecommute and they would like to telecommute. These commuters represent about 470,000 potential telecommuters. Some respondents, 9 percent could telework but are not interested in doing so, while 41 percent have job responsibilities that could only be performed at the main workplace. Teleworking among federal agency workers continues to grow rapidly. In 2016, 45 percent of respondents who worked for federal agencies teleworked, compared to 38 percent in 2013, 27 percent in 2010, and 16 percent in 2007.

COG/TPB began helping businesses start or expand telework programs in 1996 through the establishment of the Telework Transportation Emission Reduction Measure (TERM) via the Commuter Connections program. Throughout the years, Commuter Connections has provided information packets, videos, seminars, demonstration projects, sample telework policies and agreements and information on regional telework centers. Telework is supported by COG/TPB through Maryland Commuter Connections network members who provide local marketing support and outreach activities to employers as needed.

Employer-Based Promotions

- **TELEWORK!VA** – *The Telework!VA program is an initiative of the Virginia Department of Rail and Public Transportation (VDRPT) that began in 2001. The program provides technical assistance for companies interested in implementing or expanding a telework program. VDRPT began partnering with the Virginia Department of Transportation (VDOT) on marketing and funding efforts in FY2011. The program is now focused on assisting organizations in the Northern Virginia area in an effort to reduce traffic congestion. Technical assistance includes policy development, manager and employee training, budget development and assistance with technology plans. Employers in Virginia that offer telework options to their employees may also qualify for the Virginia Telework tax credit. For more information, visit <http://www.teleworkva.org/> or call 571-418-8135 Ext. 700.*

Federal Employers

Telework resources for federal employees: www.gsa.gov/governmentwide-initiatives/telework

In the Washington metropolitan region, there is a combination of private and university run telework centers. In April 2011 GSA discontinued financial affiliation/sponsorship of the original 14 telework centers in the Washington Metropolitan area. However, there are other private sector telework centers, or 'hoteling,' arrangements, available from private co-working entities such as WeWork and MakeOffices. Co-working centers provide space, similar to hoteling arrangements, plus some offer conference rooms and training facilities for short meetings/classes, on a for fee basis. These alternative

workplaces are useful types of facilities for remote, home-based worker, and for the field work force to meet or convene.

Strengths

- Strengthens employee recruitment and retention.
- Lowers training costs associated with high turnover.
- Reduces absenteeism and late arrivals.
- Increases employee productivity.
- Improves employee satisfaction by providing flexible work scheduling, better time management and the balance between work and family life.
- Reduces costs for office space and parking.
- Expands access to skilled workers.
- Expands opportunities for business continuity of operations especially in times of natural or man-made disasters.
- Enhances public recognition as an innovative business and a good corporate citizen.
- Reduces congestion.
- Financial incentives available from States to assist employers with costs and training.

Weaknesses

- Concern with how to select employees with telework appropriate positions
- Concern with the effect telework has on customer service.
- Accountability issues for work performed out of the office
- Distractions at home i.e. children, pets etc.
- Workers Compensation issues and OSHA requirements are not well understood.
- Workers are afraid of being passed up for promotions because they are out-of-sight.
- Cost of technology for teleworking.

Opportunities

Private co-working centers or spaces are on the rise; there are even niches within the co-working space industry. Some of the new centers are tailoring themselves exclusively to working women, while others include child daycare services.

A positive outlook exists for teleworking, provided that ample education and training is provided to decision-makers. Additionally, pressure should be created from the bottom up with public relations stories regarding increases in productivity and quality of life due to telecommuting. About 18 percent of non-telecommuters have job responsibilities that would allow them to telecommute and would be interested in telecommuting, according to the 2016 State of the Commute. Needless to say, teleworking is one of the most cost-effective ways to reduce congestion.

Census Bureau's American Community Survey showed that nationwide in 2017 for the first time the number of people who regularly work from home (7.9 million) exceeded riders of public transit systems (7.6 million).

Challenges

Commuter Connections research has shown that most teleworking starts from the bottom up. Most employers reported that telework started within their organizations in response to a specific employee's needs or a particular problem within a department or location. Bottom-up style marketing generally takes longer to motivate action when compared to the top-down approach. Much of the growth is

technology related, therefore there may be significant up-front expense for employers or employees who wish to participate in teleworking. Additionally, downturns in the economy have forced some employers to retract or reduce telework programs. Recent economic downturns have resulted in some private sector employers to cancel telework programs and ask all employees to report back to the office.

BICYCLING/WALKING

Bicycling to work is an important aspect of commuting. Employers can encourage cycling to work by installing secure bike parking, changing rooms, showers and lockers, and by including bicycling in commute workshops. They also can provide their employees with information they need to commute by bike, including bicycle maps, locations of bike parking and/or health clubs that provide reduced memberships for cyclists. Commuter Connections assists employers with information on bicycling programs for their employees by providing general information and resources from non-profit organizations such as Washington Area Bicyclist Association (WABA).

Walking accounts for about two-thirds of the bike/walk mode group

According to the 2016 State of the Commute Survey Report:

- 18 percent of all commuters live less than five miles from work.
- The average bike commute is 4.4 miles each way.
- The average number of days per week for bicycle commuting is 3.4.
- 2% of respondents biked to work as their primary commute mode, 1.3% walked.
- 5% of men biked or walked as their primary commute mode, versus 2% of women.
- Bike/walk as primary commute mode based on State of Employment: District of Columbia 6 percent, Maryland 3 percent, and Virginia 2 percent.
- Nearly a quarter (24 percent) of respondents in 2016 said their employers offered services for bicyclists, no change from 2013.
- Bicyclists added a smaller time “cushion” (seven minutes) to assure on time arrival compared to those who drove alone, who reported adding a 15-minute cushion.
- Bike and walk commuters report more satisfaction with their commute than users of any other mode. 79 percent of respondents who biked/walked were “very satisfied” with their commute. By contrast, only 32% of drive alone commuters were “very satisfied”.

The 2010 U.S. Census estimated that bicyclists represent 0.3 percent of the commuting population of the Washington D. C. Metropolitan Statistical Area. Bicycling to work is more prevalent in the urban core jurisdictions of the District of Columbia, Arlington County, Alexandria, and inner Montgomery County, and in census tracts adjacent to major bicycle trails. Employers located in bicycle-friendly communities or near major bicycle trails are more likely to succeed in persuading employees to ride to work than employers located in areas where the infrastructure does not support cycling.

The 2016 US Census American Community Survey also shows the highest rates of bicycling, and the fastest growth, in the urban core jurisdictions. Bike commute share is 4.6% in the District of Columbia, 2.4% in Arlington, and 1.0% in Alexandria.

COG/TPB periodically takes a count of vehicular traffic, including bicycle traffic but excluding pedestrian traffic, entering downtown D.C. and Arlington. The counts show that bicycle traffic into the downtown Metro core is growing rapidly, with bicycle traffic into the D.C. section of the Metro core more than tripling from 1986 to 2013. The number of bicyclists entering the Metro core within the District of Columbia between 5 a.m. and 10 a.m. has grown steadily from 474 in 1986, 1,379 in 2002, to 2,500 in 2013.

Arlington County, Alexandria, the District of Columbia, and Montgomery County have automated counters that gather bicycle and pedestrian counts at numerous locations, 24 hours a day, seven days a week. Count data is posted on the [Bike Arlington](#) web site.

The Bike to Work Day Washington Region 2016 Survey showed that the event introduces bike commuting as 23 percent of survey respondents said they never commuted by bicycle before participating in the annual event, higher than in 2013. The event also expands the frequency of bicycle commuting as 20 percent of survey respondents who commuted by bicycle previous to the event, said they started bicycling even more after participating in Bike to Work Day.

The Bicycle and Pedestrian Plan for the National Capital Region, adopted in January 2015, identifies the capital improvements, studies, actions, and strategies that the region proposes to carry out by 2040 for major bicycle and pedestrian facilities. The plan is an update to the 2010 Bicycle and Pedestrian Plan for the National Capital Region.

The plan includes 659 bicycle and pedestrian facility improvement projects from across the region, which were identified, submitted and reviewed by agency staffs of TPB member jurisdictions. If every project in the plan were implemented, in 2040 the region will have added 800 miles of bicycle lanes, 800 miles of shared-use paths, hundreds of miles of signed bicycle routes (signage without additional construction), more than 31 pedestrian intersection improvements, and 15 pedestrian/bicycle bridges or tunnels.

A new bicycle and pedestrian crossing over the Potomac would be created, at the American Legion Bridge, and bridges over the Anacostia River would be improved for pedestrians and bicyclists. In addition, 27 major streetscaping projects would improve pedestrian and bicycle access and amenities in Atlantic Boulevard, Michigan Avenue NE, Tysons downtown Bethesda, and other locations. If it implements the projects in this plan, by 2040 the region will have over 2,300 miles of bike lanes and multi-use paths, more than three times the current total.

Assets

- The Washington Area Bicyclist Association, and other jurisdictional bicycling advocacy groups serve to promote more bicycling, bike infrastructure and improved bicycling conditions.
- Avoiding rush hour traffic or transit delays
- Bicyclists have more predictable commute times than motorists or transit riders
- Arrive at work invigorated and refreshed; combines exercise and drive “time.”
- Improved productivity
- Improved overall health of employees, reduced sick days
- Significantly reducing overall commuting costs with less gas use and wear on automobile
- Bicycle commuters annually save on average \$1,825 in auto-related costs, reduce their carbon emissions by 128 pounds, conserve 145 gallons of gasoline, and avoid 50 hours of gridlock traffic.

Features

- A federal tax benefit for bicycle commuters enacted in 2009 allows bicycle commuters to deduct \$20 per month, pre-tax, from their paychecks to cover bicycling related expenses. As with the train, bus and vanpool benefit, employers save by not paying payroll taxes on the pre-tax portion of their employees’ paycheck.

- DDOT will help District employers select, locate and install bicycle racks, garages or on surface parking lots; and will pay for the racks and provide a free bicycle parking sign if employer pays an installation charge.
- Metro Stations have free bike racks.
- Bikes are allowed on Metrorail during off-peak hours. For more information on biking to Metro go to <http://www.wmata.com/bike>
- Bike lockers are available for lease for \$200/yr + \$10 deposit at about 50 Metrorail stations.
- All Metro buses, Arlington Transit Buses, Fairfax Connector buses, Montgomery County Ride On buses, PRTC OmniLink, and Annapolis Transit buses have bike racks.
- Free rack parking at state and local Park & Ride lots.
- All VRE Stations have bicycle parking and permit a limited number of bicycles on board in designated rail cars.
- The District of Columbia requires bicycle parking in any building with motor vehicle parking.
- Montgomery County zoning ordinance requires all parking facilities containing more than 50 parking spaces to provide one bicycle parking space or locker for each 20 automobile spaces.
- Bike maps are available from Montgomery County; Arlington County; Fairfax County; the District of Columbia; and the College Park area. Numerous trail maps and commuter and safety guides are available through the Washington Area Bicyclist Association. State maps are available through Maryland and Virginia.
- On-line bike routing is available through Google Maps.
- Over 40 percent of Washington residents bicycle for recreation.
- The Washington Area Bicycle Forum, a partnership between WABA, BikeArlington and goDCgo, is an online forum for area bicyclist to connect. New riders can get information on bike routes, gear, trail conditions, upcoming events and much more.
- The region's trail network is expanding rapidly over the next 10 years, providing links to employment centers.
- On-street bicycle lanes exist within the District of Columbia, Montgomery County, and Arlington County. Hundreds of miles of bike lanes will eventually be added across the region.
- In 2014, a new bike lane opened on First St. NE. This is the District's first curb-protected bike track. The two-way lanes run along First Street from M St. NE to G St. NE in the NoMa neighborhood.
- The VDOT Bicycle Locker program is available at state owned Park & Ride lots. Cost is \$60/yr, \$40 deposit.
- Fairfax County has a Bicycle Locker program located at county owned Park & Ride lots.
- Commuter Connections provides free Biking to Work in the Washington Area guides which double as Employer and Employee guides.
- Commuter Connections launched an online bicycle routing system in FY2009 to help commuters map out the safest or fastest routes. The site is currently being upgraded and will be available for use in FY2019.
- For bicycling newcomers, the warmer weather months provide the best opportunity to introduce the bicycle as a legitimate transportation mode.
- An employer located in a bike-friendly area or near a long-distance trail such as the W&OD or Mount Vernon Trail should be more successful in encouraging employees to bicycle to work.
- In 2012 Metro opened its first Bike & Ride at the College Park - University of MD station. The facility is located within a secure, enclosed area accessible via card access 24 hours a day. The facility is equipped with security cameras. Patrons may park for a few hours, overnight, or several days. There are no monthly or annual fees and bicyclists pay only for what they use. Additional Bike & Ride facilities will open soon at East Falls Church and Vienna.

- The Capital Bikeshare system has 4,300 bicycles at over 500 stations across Washington D.C., City of Alexandria VA, Arlington and Fairfax Counties VA, and Montgomery and Prince George’s Counties MD.
- Bikesharing expanded to College Park, Reston and Tysons in 2016. Information on the College Park bike share system can be found at <http://bike.zagster.com/mbike/>.
- During WMATA’s SafeTrack maintenance initiative, Capital Bikeshare has introduced the single trip fare to allow a single trip of up to 30 minutes for only \$2.
- In Fall 2017 new “dockless” bike share systems began to operate in the District of Columbia and Montgomery County. Dockless bikes can be picked up and dropped off at any legal bicycle parking spot (such the curb side of the sidewalk). The bikes can be unlocked and rented by the hour using a smart phone and the company app.

Deficiencies

- Often perceived as a ‘fair weather’ dependent mode. However, showers, clothing adjustments, and fenders can mitigate the effects of hot, cold, or wet weather.
- For many longer commutes, bicycling is too time-consuming.
- Perceived lack of safe travel routes.
- Parts of the road network within the city and especially in the suburbs are not bicycle friendly.
- A higher quantity and more secure parking and shower facilities at employer sites is needed.
- More interconnectivity for on-road routes is needed.
- Except for week-end trains on the Penn Line, MARC only allows folding bicycles on board, and Metrorail only allows bikes on board during non-peak periods.
- General public lacks bicycling education and skills needed to ride safety with traffic.
- Many motorists lack the proper education and understanding of sharing roadways with cyclists.
- Employers located in areas without adequate bicycling lanes and trails will find it more difficult to get employees to bike to work.
- While College Park added bikesharing in 2016, it is a separate system from Capital Bikeshare.

Prospects

The Washington Area Bicyclist Association (WABA) and Commuter Connections offer brown bag bicycle commuter presentations at worksites to educate employees and employers of the benefits of bicycle commuting. Bicycling is included as a commuter option in Commuter Connections’ employer outreach efforts.

Bike to Work Day has been a tradition in the Washington metropolitan region for over a decade. In 2000, Commuter Connections began to lend its support to WABA as part of its effort to encourage employers to promote bicycling to work. This grew the event from a downtown D.C. happening to a truly regional one, with 100 pit stop rally points for the cyclists through the region that included snacks, prize drawings, T-shirts, promotional items, and elected officials. The Steering Committee for the event includes representatives from the bicycle and TDM community. More than 17,200 bicyclists registered for Bike to Work Day 2018.

The event is promoted through distribution of collateral materials radio advertising, social media, newsletter articles, email, links from the region’s Rideshare program and TMA websites, and public affairs outreach (performed by COG Office of Public Affairs and WABA). Collateral produced for the event and distributed throughout the region includes rack postcards, posters, street banners, T-shirts. Materials were targeted to employers and cyclists in chosen target markets as well as bicycle shops.

Sponsorships proved key to ensuring the visibility and success of the event. Both cash and in-kind sponsorships are solicited. Depending on donation level, sponsors may include their logo on the T-shirt, posters, rack cards, radio mentions, and the event web site. A free catered lunch is provided to the employer who has the greatest number of registrants for the event. In 2018 the U.S. Environmental Protection Agency won that honor.

Bike-friendly jurisdictions such as the District of Columbia, Arlington, and Alexandria are experiencing both a real estate and a bicycling boom. Among the 70 largest cities in the US, Washington, DC has the third highest bike commute rate in the country, after Portland and Minneapolis. DC also has the third-fastest growth in bike commuting. As population and employment grow in these jurisdictions, more people will have access to better bike facilities and services such as bike lanes, protected cycle tracks and Capital Bikeshare.

DC has also seen the emergence of a bicycle culture which promotes on-street riding for transportation, as exemplified by the themed weekly bike rides organized by city bike shops. City-style bicycles, which are intended to be ridden in street or dress clothes, are increasingly popular.

Dockless bikesharing, introduced to the District and Silver Spring in 2017 may provide the missing link for the first and last mile challenges.

As a pilot project, eighty electric-assist bikes were added to the Capital Bikeshare fleet in 2018. The e-bikes are black in color to distinguish them apart from the familiar red bikes.

Challenges

While progress has been made in all jurisdictions, the lack of infrastructure in the region to support cycling to work appears to be the primary reason preventing adoption of this mode. A Regional Bike plan has been adopted by the National Capital Region Transportation Planning Board (TPB) in an effort to address improvement of bikeways and parking throughout the region.

In order for marketing efforts in bicycling to become more successful, commuters' attitudes must change in regard to the detriments or weaknesses of bicycling (traffic danger, logistics, employer parking, etc.). Motorists need to be more educated on responsibilities of 'sharing the road' with bicycles to create a more bicycling friendly community.

While popular, Capital Bikeshare has inherent limits as a commute mode. Stations at downtown employment centers fill up in the morning, while stations in the surrounding areas are empty. The economics of bike sharing work better when trips are self-balanced, allowing each bicycle to make dozens of trips per day, not just one to work and one back. For many employers, providing secure parking and having employees use their own bicycles is a lower-cost solution. Work sites that have staggered hours, such as hospitals and universities, can make best use of bike share as a commute mode.

Bicyclists need to observe the same rules of the road as motorists, such as coming to complete stops at red lights and stop signs.

BIKE SHARING

Bikesharing is an automated, public bicycle service first introduced by the District in 2008 under the moniker of SmartBikeDC. The success of the SmartBike program led to further demand for more bicycles and stations. In response, DC and Arlington County launched a new bikesharing service in September 2010 called Capital Bikeshare with 1,100 bikes and 114 stations throughout the District and Arlington County. As of summer 2018 the Capital Bikeshare system has 4,300 bicycles at over 500 stations in Washington, DC; Montgomery County, MD; Prince George's County, MD; Arlington County, VA; the City of Alexandria, VA; and Fairfax County, VA. Additionally in 2018, Capital Bikeshare reached an incredible 20 million trips taken milestone.

Capital Bikeshare launched a pilot project in fall of 2018 adding 80 e-bikes to the fleet. The new e-bikes, known as Capital Bikeshare Plus, are battery operated pedal-assist bicycles that offers another affordable solution to get around quickly and easily. The e-bikes are charged at the same fee as other manual Capital Bikeshare vehicles, and can be unlocked using the key fob, or from the app.

Capital Bikeshare provides residents and visitors with a convenient, fun and affordable bicycle rentals for its members. Single trip, 24-hr pass, 3-day pass, and 30-day and annual memberships are available. All trips under 30 minutes are included. Each additional 30 minutes incurs an additional usage fee. This model is designed to keep the bikes in service so that they are always available for others to use. Helmets are encouraged but not required; Capital Bikeshare sells bargain priced helmets on the website. Bikes are available 24 hours a day, 365 days a year. Severe weather may close the system if conditions are unsafe to resume service. Daily, monthly and annual memberships can be purchased on the website at www.CapitalBikeshare.com and members are sent a key fob that allows access to all of the bikes throughout the entire system. Daily and 3-day memberships can be purchased at any bikeshare station kiosk.

The Capital Bikeshare program has become a key transportation option for residents, commuters and visitors to the greater DC area, and further expansion will enable more people to use it. Capital Bikeshare offers a good solution to the last-mile problem for people commuting by transit. Employers can join as Corporate Partners of Capital Bikeshare, subsidizing their employees' memberships through the Capital Bikeshare Corporate Membership or purchasing their own station.

In 2013, for the first time, bike sharing was measured as part of the Commuter Connections State of the Commute survey. The survey indicated that 3 percent of employers offer bike sharing to their employees. Three years later, in the 2016 State of the Commute survey, that figure has doubled to 6 percent.

The Capital Bikeshare app was introduced in 2017 for iOS and Android users, which connects riders to the growing bike system in real time. The app gives casual riders the option to buy passes. It also allows customers who forget their access key, or are still waiting to receive one, to check for available bikes and unlock one at a docking station using an access code. Bikeshare members can also keep track of their travel statistics, and get docking notification, providing confirmation that the trip is closed.

In 2016 the City of College Park Maryland announced the introduction of a new bikesharing system, called mBike. The system is operated by Zagster, Inc. and offers 135 bikes at 15 stations across College Park, the University of Maryland campus, and surrounding areas. Riders may join College Park's mBike for an hour, a day, a month, or a year. mBike is similar to Capital Bikeshare in that it uses technology to

keep track of bicycles taken from and returned to a system of smart-docks. Unlike Capital Bikeshare, mBike offers riders the option of temporarily locking up bikes apart from the docking station, using a provided lock. mBike is also unique in that some three-wheeled accessible bicycles are made available throughout the system.

Dockless bike share is different from fixed-station systems like Capital Bikeshare. Users find the GPS-equipped bikes with a smartphone app and use the app to unlock the bike. Fees are charged per half hour of use and there is typically no upfront cost or membership fee. Dockless bike share allows for short-term usage and can often be found in locations not served by Capital Bikeshare. Although dockless bikes are owned and managed by private companies, they can be picked up and dropped off in the public right of way.

Dockless bike share systems began to operate in the District of Columbia and Montgomery County in fall of 2017. Companies include LimeBike, Spin, and Jump; two providers, Ofo and Mobike shortly thereafter pulled out of North America completely. The District Department of Transportation (DDOT) bike share demonstration project regulates that each company is limited to a maximum of 400 vehicles. In addition, to maintain unobstructed pedestrian areas and prevent tipping, new regulations require that dockless bikes have a mechanism to lock to a rack or other post. To assist, in fall 2018, DDOT installed an additional 300 racks, across all wards.

Preliminary information suggests that Dockless bike share increases shared bike use in the District of Columbia, rather than taking trips away from Capital Bikeshare. Dockless bike share has accounted for 17% of all bike share trips within the District, and usage is concentrated in the same neighborhoods where bicycling is already popular, especially downtown. From the start of the program, September 2017 through June 2018 users took more than 625,000 rides on dockless bikes and scooters within the district.

Montgomery County's pilot program debuted in October 2017 and covers to area near Silver Spring and Takoma Park, inside the beltway. Companies include Limebike, Mobike, Ofo, and Spin. There are currently no limits on the numbers of bicycles that could be deployed under the agreement.

Challenges

- Dockless bicycles do not respect jurisdictional lines and therefore inter-jurisdictional coordination and cooperation is essential.
- Theft and damage has been an issue for certain operators in the District.
- There is a problem with improperly parked bicycles, and a need for more bike parking infrastructure. In Montgomery County, narrower sidewalks often leave little room to park the bikes.
- Despite requirements that operators retrieve illegally parked bikes, the owner of the right of way ends up receiving a lot of the complaints.
- The public is often confused about whom to call when a bicycle is parked improperly.
- Government cannot rely solely on the bikeshare companies to plan, educate, and engage community and businesses.
- Dockless bikes create more demand for bike parking, and some of the management and public relations burdens inevitably falls upon the owners of the right of way.

Initial results indicate that dockless bikeshare has significant benefits including the prospect of increasing overall bicycling, and bringing access to areas and populations not served by fixed station systems, at moderate public cost. Dockless bikeshare is expected to spread to additional jurisdictions.

CAR SHARING

Car sharing is a viable alternative to individual car ownership, with positive economic and environmental benefits for communities. Car sharing companies have positioned hundreds of vehicles in the neighborhoods of greater Washington, DC area. With a fully automated online reservation and vehicle locating system, one membership can reserve and drive any available vehicle. Once reserved by a member, vehicles are unlocked using a personal access card that the member obtains upon joining the car sharing service. Most car share companies offer an assortment of vehicle makes and models. The exception is car2go, which exclusively offers Smartcars.

On average, Zipcar members state they save more than \$600/month or \$7,200/year after joining Zipcar. Likewise, each Zipcar takes 15-20 personally owned vehicles off the road. Having to walk a block or pay for a vehicle by the hour changes members' behavior patterns, making them more efficient with their driving choices. As a result, the average Zipcar member drives 2,500 fewer miles per year, saving 219 gallons of gasoline over that period. At current membership levels, Zipcar members will save 16 million gallons of gasoline and 150 million pounds of CO2 annually.

Zipcar is available throughout the greater Washington D.C. metropolitan area including the District, Alexandria, Arlington, Fairfax, Montgomery, and Prince George's Counties. Not only do thousands of Zipcar members take advantage of the convenience of car sharing but many businesses, universities and government agencies do as well. Zipcars have been available in the Washington, D.C. area since 2001. Zipcar entered into a partnership with the District Department of Transportation in the fall of 2013 and can now park in any metered, unmetered and residential parking spaces in the District at no additional charge.

Car2go uses a "freefloating" model for their cars. Members can pick up and drop off any car2go anywhere within the car2go Home Area, in any legal on-street parking space, including metered, non-metered, and residential neighborhood parking spaces. The cars do not need to be returned to their original location. Members simply drive the car as long as they need it, park the car at their destination, end the rental by swiping their membership card on the windshield reader, and instantly the car becomes available for the next member to use. car2go members can find an available car via a smart phone app, the car2go website, by calling car2go Customer Service, or simply by locating one on the street. No reservations are required and members have unrestricted access to the vehicles 24 hours a day, 365 days a year.

Advantages

- Maintenance, insurance, fuel and parking costs are included in rate.
- Less expensive than car ownership for occasional personal or business use.
- Can assist employers in augmented company vehicle fleets (or help eliminate them altogether). Increased transparency and employee accountability of vehicle use.
- Easy online reservation system that requires less than 1 minute to locate and reserve a vehicle.
- Zipcar has over 150 cars located at Metro parking lots throughout the Washington, DC area, and most of the fleet is within a 10-minute walk.
- Ideal for those who don't own a car or who occasionally need a second car. Less expensive for businesses than maintaining a fleet of vehicles.

- Zipcar’s fleet averages over 28 MPG and almost 10 percent of the fleet is made up of hybrids.
- Zipcar members who sell their cars report saving over \$600 per month by not having a lease payment, or parking, maintenance, insurance, registration and gas costs.
- According to Zipcar’s 2014 survey performed in conjunction with the District Department of Transportation:
 - Over ¾ of Zipcar members reported delaying or foregoing the purchase of a vehicle.
 - Almost 25 percent of members report walking and using public transportation more frequently after joining Zipcar.

Prospects

- Can serve as a GRH alternative for some companies.
- Zipcar has almost 400 locations and nearly 900 cars located throughout the Washington metropolitan region. Zipcar maintains strong alliances with DDOT, WMATA (Metro), Arlington County, the City of Alexandria, Montgomery County and Prince George’s County.
- Zipcar has vehicles on the campus of every major university in the Washington, DC area, including George Washington, Georgetown, the University of Maryland, Howard University, and Marymount University.
- Employers can use car sharing to augment their vehicle fleets and for business trip purposes, receiving substantial weekday driving discounts.
- Turo, Getaround, and MAVEN are peer-to-peer carsharing companies made up of a community of private individuals who offer members the opportunity to rent out their personal vehicles.

HOV/EXPRESS LANES

Product Profile

The first High Occupancy Vehicle lane (HOV) in the United States opened in Virginia in 1969 as a bus-only lane on the Shirley Highway. In December 1973 the “busway” was opened to carpools with four or more occupants, becoming the first instance in which buses and carpools officially shared a HOV lane over a considerable distance. The Shirley Highway HOV requirement was lowered to HOV-3 in the 1980’s and extended to Prince William County in 1990’s. HOV Lanes on I-66 inside the Beltway opened in 1982 (HOV-4 then, lowered to HOV-3 and now HOV-2), and in December 2017, I-66 inside the Beltway (Exit 64 to Exit 73) and including the Dulles Connector Road between VA-123 and I-66 was changed from an HOV facility during peak flow and peak direction conditions to HOV/Toll lanes (tolled eastbound 5:30 AM to 9:30 AM and westbound 3:00 PM to 7:00 PM) – all vehicles must have an E-ZPass transponder, and those with an E-ZPass Flex transponder and two or more persons in the vehicle drive toll free. The first HOV lanes in Maryland opened on I-270 in September 1993, with the first segment on the northbound East Spur. The HOV lanes on I-270 were fully completed in December 1996. The U.S. 50 concurrent-flow HOV opened in 2002 – the only 24/7 HOV in the region.

Today in the Washington area all HOV lanes include carpools, vanpools, buses, and motorcycles. There are six high-occupancy vehicle (HOV) facilities on highways functionally classified as freeways. These are:

- I-95/I-395 (Shirley Highway) in the Northern Virginia counties of Prince William, Fairfax, Stafford and Arlington, and the City of Alexandria. The sections in Stafford, Prince William and Fairfax Counties are now the 95 Express Lanes (HOV/Dynamic Tolling facility) and HOV-3 vehicles may use the facilities for free with an E-ZPass Flex transponder.
- I-66, also in the Virginia counties of Prince William, Fairfax and Arlington (this HOV system includes a section of the Dulles Connector Road in McLean, connecting to VA-267’s HOV lanes (see below) (as described above, I-66 inside the Beltway and the Dulles Connector Road were converted to an HOV/Toll facility in December 2017)
- I-270 and the I-270 Spur in Montgomery County, Maryland;
- Virginia Route 267 (Dulles Toll Road), connecting to I-66 via the Dulles Connector;
- U.S. 50 (John Hanson Highway) in Prince George’s County, Maryland;
- The I-495 (Capital Beltway) Express Lanes in Fairfax County, which allow HOV-3 vehicles free passage with an E-ZPass Flex transponder.

According to a 2014 COG study of performance of HOV lanes in the Washington region, HOV Lanes carry a significant number of more persons per lane per hour than adjacent non-HOV lanes, not including transit.

- I-395 (HOV 2.8 passengers vs. non-HOV 1.1)
- I-95 (HOV 2.6 passengers vs. non-HOV 1.1)
- I-66 outside Beltway (HOV 1.9 passengers vs. non-HOV 1.1)
- I-270 at Rockledge Drive (HOV 1.9 passengers vs. non-HOV 1.0)
- I-270 spur (I-270Y) at Democracy Blvd. (HOV 1.8 passengers vs. non-HOV 1.0)
- VA-267 (HOV 1.9 passengers vs. non-HOV 1.0)
- U.S. 50, John Hanson Highway, between Md. 197 and Md. 704 westbound and eastbound sides (HOV 1.6 passengers vs. non-HOV 1.0)
- In 2012, the I-495 (Capital Beltway) Express Lanes opened, which allow free use by HOV-3 vehicles (no performance data are available yet).

- The 95Express Lanes replaced the HOV lanes between Va. 234 in Prince William County and Turkeycock Run on I-395 in Fairfax County in December 2014 and added capacity to the managed roadway to create an HOV/Express lanes network from the Edsall Road area (Turkeycock Run) in Fairfax County to Garrisonville Road in Stafford County of about 29 miles in length. The project also added new access points and connected directly to the I-495 Express Lanes. The I-395 HOV-3 lanes from the Turkeycock Run area to the Pentagon (about 7 miles) are planned for conversion to HOV/Toll lanes by Fall 2019.

In Northern Virginia, there are approximately 84 miles of HOV and HOV/Toll lanes, including a 38-mile two-lane reversible HOV/Toll facility located on Interstate I-95 and I-395 between VA-630 (Garrisonville) in Stafford County and the Pentagon/Pentagon City area of Arlington County. These lanes are northbound between 11:00 PM and 11:00 AM and southbound between about 12 Noon and 10:00 PM. It is restricted to users of E-ZPass transponders vehicles with 3 or more persons and an E-ZPass Flex transponder may use the lanes at no charge, buses, motorcycles, and taxicabs.

Interstate 66 has 11 miles of HOV inside I-495 and 21 miles outside I-495 for a total of over 30 miles. I-66 inside the Beltway is operated as an HOV/Dynamic Toll (HOV-2 no charge with E-ZPass Flex Transponder) eastbound in the AM hours and westbound in the PM hours. The HOV-2 lanes outside I-495 are concurrent flow HOV but will be converted to an HOV/Toll facility in the future. The Virginia Department of Transportation re-striped the lines separating the concurrent-flow HOV lanes from the adjacent non-HOV lanes to reduce changing of lanes to and from the HOV lanes along I-66 between U.S. 50 and I-495.

Fifteen miles of concurrent flow HOV lanes opened on the Dulles Toll Road in 1998. The lanes are for HOV-2 vehicles and feed into the I-66 facility via the Dulles Connector Road between VA-123 and I-66. The 495 Express Lanes in Fairfax County provide four lanes for vehicles with E-ZPass transponders. Carpools with three passengers and vanpools may use the lanes at no charge if they have an E-ZPass Flex transponder. The HOV-3 exemption is valid at all times that the Express Lanes are open to traffic.

Maryland has 46 miles of HOV lanes. I-270 has one lane devoted to southbound traffic in the AM between 6:00 - 9:00 A.M. and one lane devoted to northbound traffic in the P.M. (3:30 P.M. - 6:30 P.M.). These lanes opened in the winter of 1996. The HOV lanes on US 50 are in operation 24 hours/day, 7 days/week. Maryland Department of Transportation's Maryland State Highway Administration conducts an extensive monitoring program and has usage data. The fine for HOV violations in Maryland is \$90.00 and one point against the violator's license. Drivers of plug-in electric vehicles, titled and registered in Maryland, are allowed to use the HOV lanes in Maryland regardless of the number of passengers, providing they obtain and display an HOV permit on the vehicle. The permit will be valid through September 2017.

Northern Virginia HOV Lane fines: First offense: \$125; second offense: \$250 plus 3 points on your driving record; third offense: \$500 plus 3 points on your driving record; fourth offense: \$1,000 plus 3 points on your driving record. Motorists traveling to and from Dulles International Airport to go to the airport to catch a flight or to pick someone up at the airport are permitted to use I-66 inside the Beltway (I-495) during HOV hours. Vehicles which are registered with clean special fuel license plates (including some hybrids) are permitted to use HOV lanes.

HOV/EXPRESS LANES IN NORTHERN VIRGINIA:

<i>LOCATION</i>	<i>TYPE</i>	<i>MILES</i>	<i>USERS</i>	<i>HOURS OF OPERATION</i>	<i>COMMENTS</i>
I-395 Shirley Hwy	I-395 Two lanes reversible	7	HOV-3, motorcycles, buses, taxis with 3 or more people, hybrid vehicles with appropriate registration plates, emergency vehicles (fire, ambulance, rescue) and law enforcement vehicles. Public utility vehicles are permitted to use HOV lanes when responding to emergency calls. Transition to 95 Express (HOV toll) lanes is at Turkeycock Run between VA-236 and VA-648.	NB: 6:00-9:00 a.m. SB: 3:30-6:00 p.m.	<ul style="list-style-type: none"> • I-395 AM: 2.8 AVO 49 MPH, 12 minutes • I-395 PM: 2.38 AVO 68 MPH, 9 minutes • Non HOV AM: 1.1 AVO, 20 MPH, 30 minutes • Non HOV PM: 1.11 AVO 49 MPH 12 minutes
I-95 Shirley Hwy (95Express toll lanes)	I-95 Two lanes reversible	28	HOV-3, motorcycles, buses, taxis with 3 or more people, emergency vehicles (fire,	NB: About 11:00 PM to 11:00 AM SB: About 12 Noon to 10:00 PM	<ul style="list-style-type: none"> • I-95 AM: 2.6 AVO 62 MPH, 18 minutes • I-95 PM: 2.60 AVO 67 MPH, 16 minutes

LOCATION	TYPE	MILES	USERS	HOURS OF OPERATION	COMMENTS
			ambulance, rescue) and law enforcement vehicles. All vehicles must have an E-ZPass transponder. To use lanes for free, vehicles must have an E-ZPass Flex transponder. Public utility vehicles are permitted to use HOV lanes when responding to emergency calls.		<ul style="list-style-type: none"> • Non HOV AM: 1.1 AVO, 22 MPH, 51 minutes • Non HOV PM: 1.16 AVO 28 MPH 41 minutes
Capital Beltway (not including Wilson Bridge) 495Express lanes	Express Lanes	14 miles (each way) between I-95 and north of VA-267 (Dulles Toll Road)	HOV-3 travels free with E-ZPass Flex, SOV pays a variable toll. All vehicles must have an E-ZPass transponder	Normally open 24/7.	Express Toll Lanes (no HOV provision) under study on the Maryland portion of the Beltway
I-95/I-495 Capital Beltway at Woodrow Wilson Bridge	Concurrent-flow HOV or transit lanes on bridge and approaches to bridge		To be determined	To be determined.	One lane in each direction reserved for HOV and bus traffic; or for a rail line.

LOCATION	TYPE	MILES	USERS	HOURS OF OPERATION	COMMENTS
Route 1	Concurrent-flow curb lane on Route 1 in City of Alexandria		HOV-2, motorcycles and transit buses.	NB: 7:00 – 9:00 a.m. SB: 4:00 to 6:00 P.M.	
I-66 (Outside 495)	Concurrent flow HOV lane between I-495 and Route 234 Bypass in Prince William County.	21	HOV-2 motorcycles, buses, taxis with 2 or more people, hybrid vehicles with appropriate registration plates, emergency vehicles (fire, ambulance, rescue) and law enforcement vehicles. Public utility vehicles are permitted to use HOV lanes when responding to emergency calls.	EB: 5:30-9:30 a.m. WB: 3:00 -7:00 p.m.	HOV AM: 1.9 AVO. 29 MPH, 42 minutes HOV PM: 1.80 AVO. 52 MPH, 21 minutes Non HOV AM: 1.1 AVO, 23 MPH, 55 minutes Non-HOV PM: 1.1 AVO, 43 MPH, 27 minutes

LOCATION	TYPE	MILES	USERS	HOURS OF OPERATION	COMMENTS
VA-267/ Dulles Toll Road	Concurrent flow HOV lane from Virginia Route 28 to main toll plaza. Approx. 15 mile facility includes Dulles Connector Road segment between VA-123 and I-66.	14.8	HOV-2, buses, taxis with 2 or more people, hybrid vehicles with appropriate registration plates, emergency vehicles (fire, ambulance, rescue) and law enforcement vehicles. Public utility vehicles are permitted to use HOV lanes when responding to emergency calls.	EB: 6:30-9:00 a.m. WB: 4:00 –6:30 p.m.	<ul style="list-style-type: none"> • Opened December 1998 • HOV AM 1.9 AVO, 58 mph, 12 min • HOV PM 1.7 AVO, 58 mph, 16 min • Non-HOV AM 1.1 AVO, 46 mph, 15 min • Non-HOV PM 1.05 AVO, 48 mph, 22 min
I-66 Express Lanes (inside the Beltway)	(between I-495 and Rt. 29 in Rosslyn).	9	HOV-2, on-duty emergency and law enforcement vehicles. Public utility vehicles responding to emergency calls.	Eastbound rush hour is Mon-Fri 5:30 a.m. to 9:30 a.m., and westbound 3:00 p.m. to 7:00 p.m.	<ul style="list-style-type: none"> • Opened December 2017 • Clean fuel special license plate vehicles and hybrids who drive alone must pay toll. • Trucks prohibited. • Will change to HOV-3 in 2022 when express lanes open on I-66 outside the Beltway.

HOV LANES IN MARYLAND:

LOCATION	TYPE	MILES	USERS	HOURS OF OPERATION	COMMENTS
I-270	Concurrent-flow (1 lane)	SB: 12 miles from I-370 to I-495 NB: 19 miles from I-495 to MD 121	HOV-2, motorcycles, buses, and plug-in electric vehicles, titled and registered in Maryland.	SB: 6:00-9:00 a.m. NB: 3:30-6:30 p.m.	<ul style="list-style-type: none"> • HOV AM: 1.9 AVO • HOV PM: 2.54 AVO • Non HOV AM: 1.0 Non HOV PM: 1.10 AVO,
US 50 (John Hanson Highway) (Md. 704 to east of US 301/Md. 3)	Concurrent flow Single lane each way	MD 704 to Anne Arundel County/Prince George's County line; 7.5 miles	HOV 2+, motorcycles, buses, and plug-in electric vehicles, titled and registered in Maryland.	24 hours/day 7 days/week	<ul style="list-style-type: none"> • HOV AM: 1.6 AVO; • HOV PM: 2.66; • Non HOV AM: 1.0 AVO • Non HOV PM: 1.95 AVO

FUTURE HOV PLANS:

Visualize 2045's financially constrained element includes High-Occupancy Toll (HOT) lanes on the northern portion of I-495 in Virginia. This project includes express toll lanes with toll-free travel for high-occupancy vehicles. Express bus service will also run on the express lanes. The financially constrained element also includes adding dynamically-priced toll lanes along I-495 in Maryland and I-270.

Maryland

Maryland plans to add four new express toll lanes to I-270, the Capital Beltway (I-495), and the Baltimore-Washington Parkway (unsigned MD 295). The project on the Baltimore-Washington Parkway requires the approval of a transfer of the Parkway to the Maryland Department of Transportation. The \$9 Billion Traffic Relief Plan for these three major state highways will reduce congestion for millions of drivers and mark the beginning of a transformative effort to significantly improve traffic conditions of some of Maryland's most traveled roads and highways for years to come. The P3 portion, to add four new lanes on both I-495 and I-270 will seek private developers to design, build, finance, operate and maintain the new lanes. The proposed P3 highway project would be the largest of its kind in North America),

Virginia

Express lanes opened in December 2017 during rush hours on I-66 Inside the Beltway between Interstate 495 and Route 29 in Rosslyn. Those who drive alone may use the lanes during morning and evening rush hours, by paying a toll. Those traveling with two or more people will continue to ride free with an E-ZPass Flex, switched to the High Occupancy Vehicle (HOV) mode.

Work is underway to transform Northern Virginia's I-66 Outside the Beltway into a multimodal corridor that moves more people, provides reliable trips and offers new travel options. The \$2.3 billion project is

a public-private partnership between the Virginia Department of Transportation (VDOT), the Department of Rail and Public Transportation (DRPT) and private partner, I-66 Express Mobility Partners, a consortium of Cintra, Meridiam, Ferrovial Agroman US and Allan Myers VA Inc. The I-66 Outside the Beltway Project will include 22.5 miles of new express lanes alongside three regular lanes from I-495 to University Boulevard in Gainesville. Express lanes will be dynamically tolled to manage demand for the lanes and provide a reliable, faster trip available to drivers who choose to pay a toll, and for free to vehicles with three or more people. Part of the project will include new and improved bus service, and new and expanded park and ride lots with more than 4,000 parking spaces.

In August 2017, the Virginia Department of Transportation and its private partner and operator of the I-95 Express Lanes, Transurban, broke ground on the start of construction of an eight-mile extension of the I-395 Express Lanes inside the Beltway, from Turkeycock Run (between Edsall Rd. and Duke St.) in Alexandria, to the Washington, D.C. border. The reversible lanes project will expand the region's network of express lanes and provide faster and reliable options in one of the most heavily traveled corridors in the country. With three or more people and an E-ZPass Flex, travel on the I-395 Express Lanes will be free. The I-395 Express Lanes inside the Beltway are scheduled to open in fall 2019, with final project completion in spring 2020.

Assets

- Increases the average number of persons per motor vehicle using a highway over conventional (non HOV) lanes or roadways.
- Preserves the person-moving capacity of a lane or roadway as demands for transportation capacity increase.
- Enhances bus transit operations.
- Supports air quality goals.
- Serves a variety of employment centers in urban and suburban areas.
- Provides more predictable travel times, even during periods of high demand
- No cost to the HOV-3 users in VA.

Deficiencies

- These lanes are, for the most part, single lanes (along I-270, I-66 outside the Capital Beltway, Route 1 and Washington Street in Alexandria). They do not allow for passing.
- Hours of operation are tailored to each corridor; they are not consistent throughout the region. (See 66 inside and outside I-495 hours).
- Number of passengers required is not consistent for all HOV lanes in the region.
- HOV enforcement is partly dependent on supplemental overtime enforcement grants from state DOTs.
- Misuse by SOV drivers using HOV lanes in Maryland and Virginia (except I-95/I-395 and I-66 inside Beltway) is more prevalent due to the lack of barrier separation.
- Perception of enforced HOV rules is lax; penalties may be too low to discourage violators in MD.
- I-270 HOV lanes are "imbalanced" in length – they are much shorter in distance during the A.M. restricted period (from I-370 south at Shady Grove) than in the afternoons, when HOV restrictions are in place as far north as MD 121 (Clarksburg).

Advertising/Promotional Strategy

- In specific corridors where HOV capacity has not been reached, promote time and cost savings that result from use of HOV lanes through targeted direct mail or print ads to residential areas surrounding communities who feed into them.

- Working with traffic reporters from radio and television to advise commuters of the time and cost savings resulting from the use of HOV lanes.
- Coordinate with Maryland and Virginia on joint HOV/Express Lanes marketing campaigns.

Threats

- Accidents/overuse that will reduce time savings.
- Conversion of the I-95 and I-395 HOV lanes between Dumfries and Turkeycock Run to HOV/Toll Lanes along with a mandate for HOV-3 vehicles to use E-ZPass Flex transponders) and its possible impact on reducing use by carpools and vanpools. Staff has recently collected data for the first time along the new 95 Express Lanes, which are not yet available.
- Legal use of HOV lanes in Virginia experiences reduced speeds, especially along I-66
- A faction of the general public does not perceive the time savings.
- In some instances, the public perceives that general purpose-lanes are being taken away by dedicating them to HOV.
- Slowdowns and/or traffic congestion can occur due to enforcement of the lanes.
- Performance of concurrent flow HOV lanes on I-270 and I-66 (outside Beltway) are impacted by severe congestion in non-HOV lanes.

PARK & RIDE LOTS

Park and Ride lots support mass transit, carpools, and vanpools. With the exception of Metrorail lots and a few others, the overwhelming majority of commuter parking is free within the Washington metropolitan region. Most rail parking for MARC and VRE in the region is free, while all Metrorail parking lots require paid parking through mandatory SmarTrip® cards (or credit cards at some stations). Metered spaces are also offered at most of the Metrorail parking lots. In Montgomery County, there are discounts for monthly parking in the facilities in Silver Spring and Bethesda for carpools and vanpools. Five person carpools are given greater discounts.

Assets

- Allows for more commuters to use transit
- Safe and convenient
- Used as a meeting point for car and vanpools
- Many offer both local and commuter bus service
- Many provide bike racks and some also offer secured covered bicycle lockers

Deficiencies

- Increases the cost of commuting on Metrorail
- Some lots are at maximum capacity on a daily basis
- WMATA requires a SmarTrip card to exit most Metrorail parking lots

Prospects

- Lots can be cost effectively used as sites for commuter related promotions, i.e. GRH, Flextime Rewards, and other TDM programs and services beneficial to existing alternative mode commuters.
- Can promote carpooling or cycling to lots if advantages are given such as free parking, spaces near entrance and safe lockers
- Communicate type of Park and Ride to commuter i.e., that commuters can park in store parking lots
- As part of VDOT's Transform 66 Outside the Beltway project, three new Park and Ride lots will be built along the corridor.

Threats

- Will need funding to increase capacity at some stations
- Expansion typically meets with some neighborhood resistance
- Cost to commuters have been increased at some lots
- Not enough lockers for bikes at some stations
- Vandalism
- Limited Parking

PARK & RIDE LOT TABLE (DC & MD)

ST	JURISDICTION	P&R LOT	# OF PARKING SPACES	AVG LOT SIZE	FREE PARKING	\$ PARKING	TRANSIT	BIKE FACILITIES
DC	District of Columbia	6	2,857	476	0	6	6	6
MD	Anne Arundel	23	8,181	356	21	2	15	4
MD	Baltimore	28	10,296	368	28	0	14	11
MD	Baltimore City	12	4,758	397	10	2	11	6
MD	Calvert	10	1,482	148	10	0	6	2
MD	Carroll	7	486	69	7	0	0	0
MD	Cecil	2	128	64	2	0	0	0
MD	Charles	10	3,666	367	10	0	9	3
MD	Dorchester	1	12	12	1	0	0	0
MD	Frederick	14	2,717	194	14	0	5	2
MD	Harford	15	1,290	86	15	0	4	0
MD	Howard	13	3,167	244	13	0	6	6
MD	Kent	1	27	27	1	0	0	0
MD	Montgomery	36	20,797	578	26	10	32	10
MD	Prince George's	36	36,818	1,023	18	18	34	18
MD	Queen Anne's	4	398	100	4	0	1	0
MD	St Mary's	7	1,318	188	7	0	5	3
MD	Talbot	1	9	9	1	0	0	0
MD	Washington	7	751	107	7	0	1	0

Park & Ride Lots contained in the above list are either owned by states, local jurisdictions or private entities. Data was gathered from state and local transportation agencies, web sites, and GIS services.

Park & Ride Lot Table (VA & WV)

ST	JURISDICTION	P&R LOT	# OF PARKING SPACES	AVG LOT SIZE	FREE PARKING	\$ PARKING	TRANSIT	BIKE FACILITIES
VA	Alexandria	2	537	269	1	1	2	1
VA	Arlington	4	1,337	334	2	2	4	1
VA	Caroline	1	43	43	1	0	0	0
VA	Clarke	2	198	99	2	0	0	0
VA	Culpeper	3	44	15	3	0	0	0
VA	Essex	1	25	25	1	0	0	0
VA	Fairfax	41	35,477	865	34	7	39	20
VA	Fairfax City	1	35	35	1	0	0	0
VA	Fauquier	8	468	59	8	0	1	0
VA	Fredericksburg	1	700	700	1	0	1	1
VA	King George	1	50	50	1	0	0	0
VA	Loudoun	22	4,252	193	22	0	19	3
VA	Prince William	42	12,609	300	42	0	17	15
VA	Rappahannock	2	20	10	2	0	0	0
VA	Spotsylvania	3	2,126	709	3	0	2	0
VA	Stafford	9	4,183	465	9	0	2	0
VA	Warren	3	478	159	3	0	0	0
VA	Westmoreland	2	156	78	2	0	0	0
WV	Berkeley	1	81	81	0	1	1	0
WV	Jefferson	2	298	149	2	0	1	0

Park & Ride Lots contained in the above list are either owned by states, local jurisdictions or private entities. Data was gathered from state and local transportation agencies, web sites, and GIS services.

GUARANTEED RIDE HOME PROGRAM

Product Profile

Guaranteed Ride Home (GRH) is a free service provided by COG for commuters who vanpool, carpool, bicycle, walk, or take transit to work, a minimum of two days a week. GRH is an “insurance policy” where qualifying commuters are given a reliable ride home when an unexpected emergency arises. Commuters can use GRH up to four times per year for unexpected personal emergencies, unexpected family emergencies, and unscheduled overtime. Commuters must register for GRH and re-register each year to keep their registration information up-to-date. A “one-time exception” GRH trip is granted to qualifying commuters who have not registered. GRH provides a ride from a commuter’s work location to their home, transit station, or park-and-ride location by cab, rental car, bus, train, or a combination of these modes. The taxi trip or rental car is free. The commuter is responsible for gratuity for the taxi driver and the following rental car charges where applicable: taxes, fuel, insurance charges, and damages to the vehicle. COG will reimburse commuters for their GRH transit expenses. In the event of an emergency, the commuter can call 800-745 RIDE, and request a ride from the operator from 6:00 a.m. to 10:00 p.m. on weekdays. In FY11, the GRH program was expanded to include the Baltimore Metropolitan region and St. Mary’s County. The total number of GRH trips provided in FY18 within the Washington metropolitan area was 2,312. The number of trips in the Baltimore region in FY18 was 125.

Assets

- Low-cost benefit with high perceived value by both employee and employer
- Assists in overcoming commuter anxiety of being stranded
- Assured ride allows greater participation in alternative transportation programs

Deficiencies

- Commuters are allowed to use one GRH trip without registering with Commuter Connections, known as a onetime exception. Some commuters may not register knowing they can receive a first-time exception trip.

Prospects

GRH offers a unique tool to attract SOVers to try alternative commuting, and a marketing campaign focused on its benefits would greatly enhance the level of interest in alternative commuting by SOVers, and attract more current HOVers to register with Commuter Connections. GRH is also an incentive for commuters to continue using alternative commute modes and increase the frequency of using these modes.

Challenges

- Fraud by commuters. However, misuse of the GRH program has been minimal. In each case, the commuter was issued a warning and some commuters have been temporarily removed from the program.
- Streamlined marketing has resulted in significantly lower recall of the program and registration numbers.

COMMUTER BENEFITS PROGRAMS

Product Profile

In the Baltimore/Washington region, the Maryland Department of Transportation Commuter Choice Maryland commuter benefits program and the Washington Metropolitan Area Transit Authority's SmartBenefits® program offer employees the ability to ride transit or vanpools to work for less than full fare utilizing tax incentives. And for Maryland employers who contribute to their employees' monthly commuting costs, they have the opportunity to take federal and state tax deductions and a Maryland Commuter Tax Credit when they contribute to the cost of employees' monthly commuting expenses.

For CY 2017, IRS tax-free employee transportation fringe benefit amount is \$255 and the parking benefit is \$255 per month (with indexing for inflation). Federal agencies in the Washington, D.C. National Capital Region can provide employees with the same tax-free transit benefits to cover commuting costs up to the maximum allowed by law. These same federal benefits are also extended beyond the National Capital Region to employees who work for the legislative and judicial branches or for independent agencies.

Employers in Maryland can join the Commuter Choice Maryland commuter benefits program offered by the Maryland Department of Transportation. Employers in the Washington, D.C. area can join the SmartBenefits® program offered by the Washington Metropolitan Area Transit Authority (WMATA). Employees can receive a Commuter Choice Maryland or SmartBenefits® tax-free transit benefit of up to \$255 monthly either as an employer-subsidy benefit, or via a pretax payroll deduction from an employee's gross salary, or a combination of the employer subsidy and pre-tax deduction benefit. When employers provide Commuter Choice Maryland or SmartBenefits® to employees, there are opportunities for tax savings for both employers and employees.

In Maryland, the Maryland Commuter Tax Credit makes it possible for Maryland employers that pay for part or all of the eligible monthly commuting expenses of their employees to qualify for a tax credit equal to 50 percent of the cost of those expenses with a cap of \$100 per employee, per month. Eligible expenses include transit passes or vouchers, vanpool expenses, Guaranteed Ride Home program expenses, and "cash in lieu of parking" program expenses. Employers register each year to qualify for the tax credit. The tax credit can be taken against the personal or corporate income tax or the insurance premium tax.

WMATA SmartBenefits® offers the SmarTrip® Card, a credit-card sized smart card embedded with a computer chip to keep track of the cash value and pass products on the card. CharmCard® is the MTA's way to pay that makes traveling by Local Bus, Light Rail and Metro Subway easy. CharmCard® also works in Washington, DC, Montgomery County, Northern Virginia, Prince George's County and anywhere the SmarTrip® logo is displayed.

Maryland Department of Transportation's Commuter Choice Maryland Program

Product Profile

Transportation Demand Management (TDM) is a cornerstone of the Maryland Department of Transportation's (MDOT's) operational model and the Department plans to address key goals and objectives through renewed outreach and education on its policies, programs, and projects. MDOT's TDM Program is a set of strategies implemented to maximize traveler choices, deliver transportation solutions and services of great value, conserve energy and protect our environment, and facilitate economic opportunity.

Beginning in the summer of 2017, MDOT began refreshing the Commuter Choice Maryland brand to better represent and market MDOT's TDM Program, across all MDOT Business Units (e.g., MDOT Maryland Transit Administration, MDOT State Highway Administration, Maryland Transportation Authority, etc.). What began as a set of initiatives by which MDOT could reduce congestion on State highways and improve air quality evolved to maximize multimodal choice and include traffic system management and operations (TSM&O) technologies to improve safety and reliability. TDM strategies for multi-modalism, ridesharing, alternative work schedules, and financial/tax incentives help MDOT meet the priority to deliver a safe, sustainable, intelligent, and exceptional transportation system for all users.

MDOT is evaluating the results of a Summer 2017 listening campaign to survey commuters and interview key Maryland employers to identify support for and interest in TDM options available to commuters and employers and to mitigate any barriers to using each TDM option. MDOT will evaluate the results of the listening campaign, alongside industry best practices, and existing MDOT TDM services to identify recommendations for enhanced TDM programs, policies, and initiatives. MDOT partners with local Rideshare Coordinators to market options available to commuters and employers in counties across the State. We are exploring opportunities to provide enhanced TDM Program materials tailorable to four regions of Maryland: Baltimore, Washington, D.C., other urban areas, and rural areas.

Additionally, we are building a brand new MDOT commuting resources Website – mdot.maryland.gov/CommuterChoiceMaryland – which will serve as a gateway to TDM resources provided by MDOT's Business Units and partners. Kicking-off in 2018, will be a new Commuter Choice Maryland marketing campaign to increase awareness of TDM programs and services for Marylanders, provide resources to commuters and employers to make considering alternatives to driving alone to work easier and more fun.

WMATA, Washington, DC - SmartBenefits Program

Product Profile

In the Washington, D.C. region, nearly 4,000 public and private sector employers provide SmartBenefits® to more than 250,000 employees. Employers who participate in the SmartBenefits® program include federal and local government agencies, and a broad spectrum of private sector for-profit and non-profit (association) employers.

SmartBenefits® is a web-based program that enables employers to load commuter benefit value directly into an employee's SmarTrip® card, via the Internet. SmartBenefits® eliminated the need for paper vouchers.

SmartBenefits® is used for employees who use their transit benefit to ride Metrorail, Metrobus, regional bus systems, MetroAccess, registered vanpools, commuter rail and commuter bus. The parking benefit is used to pay parking fees at Metro-operated lots. With the expansion of SmarTrip within the region and as the primary means to pay for parking at Metro facilities, SmartBenefits® has become the all-inclusive transit benefit program in the national capital region. To enroll, employers simply complete an online application at wmata.com under the SmartBenefits® tab and select from a variety of easy payment methods.

The SmartBenefits® Autoload program implemented a new process for employee transit and parking benefits. Metro's new system divides commuter benefits into two "purses" on employees' SmarTrip® cards; transit and parking. Funds are parsed out based on an employee's monthly transit and parking allotments. The benefits will be accessed by presenting SmarTrip® card to a target. This process is called SmartBenefits® Autoload. Employees can add to their personal stored value purse at any time. In addition, SmartBenefits® allow employee participants to purchase passes on their SmarTrip® card using SmartBenefits® funds. In scenarios where there are deficient commuter benefit funds at the time of boarding a bus, exiting turnstiles or parking facilities, funds in the stored value purse will be used. Based on employer election, commuter benefit subsidies will be credited back to the employer should an employee not exhaust all of their monthly benefit funds. Employers who provide commuter benefits as a pre-tax option may either receive a credit for employee surplus amounts or simply let the amount rollover onto the employees' SmartBenefits® account.

With the separation of transit and parking benefits on the smart card, the WMATA SmartBenefits® program is IRS compliant. Transit benefits cannot be used to pay for parking and parking benefits cannot be used to pay transit fares.

Assets

- Convenient and flexible benefit with opportunities for tax savings for employers and employees.
- Reduces overall commuting expenses for employees.
- Encourages part-time as well as full-time mass transit use by employees.
- Helps to reduce traffic congestion and air pollution associated with the use of automobiles for commuting.
- Region-wide acceptance of the SmartBenefits® transit benefit by all types of public transportation and qualified vanpool services.
- Exceptionally valuable tool to recruit, retain and motivate employees. SmartBenefits® is a primary component of an employee's fringe benefit package.
- Commits employees to "stay with" transit for their commute, encourages car drivers to switch to transit for commuting.

- SmartBenefits®: Web-based loading of commuter benefit simplifies program administration and distribution of transit, vanpool and parking benefits.
- Combined, there are over 250 Giant Food, CVS/pharmacy and other merchant locations in the region that sell and reload SmarTrip® cards.
- Connector stores in Fairfax County, Commuter stores in Arlington County, and TRiPS stores in Montgomery County also sell and reload SmarTrip® cards.
- The SmartBenefits® AnyTime enables employers to assign benefits to an employee after the standard cutoff date so that they won't have to wait until the next enrollment period to receive benefits.

Current Promotional Strategy

Traffic congestion and automobile-generated pollution are ever-increasing problems that plague the greater Baltimore-Washington region. Employers who participate in the Commuter SmartBenefits® program are part of the solution. These employers encourage their employees to use public transportation for their work commute. This helps take cars off the road while providing a less stressful way for employees to arrive at work on time, ready to maximize their potential for productivity. WMATA markets SmartBenefits® via advertising (car cards on bus and rail, rail station posters and dioramas, bus exterior posters, newspapers, radio), seminars, and workshops for employers, the Internet, and outreach events at rail stations, bus stops, and public places throughout the Washington area.

Challenges

- Lack of private-sector employer participation and lack of perceived need to consider transportation programs as part of benefits package.
- Public perception is that they are not part of the problem and therefore, not part of the solution.
- Changes to recent IRS regulations have prompted changes to how employers will be able to distribute SmartBenefits® related to transit and parking benefits.
- SmarTrip® cards MUST be registered to participate in SmartBenefits® Autoload.
- Cost of employer-subsidized benefit for large employers can be high, if provided only as a direct (free) benefit.

CLEAN AIR PARTNERS
www.cleanairpartners.net

Product Profile

Clean Air Partners is a nonprofit organization that seeks to improve the health and quality of life of residents in the Baltimore-Washington region by encouraging individuals and organizations to take voluntary actions to reduce air pollution. The organization serves Northern Virginia, the District of Columbia, and Central Maryland.

Promotional Campaign

- Clean Air Partners launched a new website, incorporating a new look and feel and systems to improve users experience across all pages. The website continues to be the primary mechanism to communicate air quality information to the public.
- Available for both the iPhone and Android systems, Clean Air Partners provides a free air quality app that includes forecast and current air quality information. The app downloads continue to increase each year - reaching over 5,000 users.
- Clean Air Partners includes a social media presence on Facebook and Twitter. As a result of outreach and social media and digital campaigns, the number of Facebook fans increased by 68% and Twitter followers increased by 7 percent from the previous year.
- In May 2017, Clean Air Partners recognized local students that were selected as winners of the poster contest, slogan contest, and science fairs during its Annual Awards Celebration. The awards event took place at Pepco Edison Place Gallery.
- In honor of Clean Air Partners 20th anniversary, the “Best in Air” Awards were launched to recognize organizations for bringing forth business practices, individual efforts, and programs that improve regional air quality and honored them at the Annual Awards Celebration
- The 2017 season included extended day forecasts for ozone and particle pollution for the Washington Metro Region, the Baltimore Metro Region, Western Maryland, and Eastern Shore.
- Magnets (English and Spanish), rack cards, infographics, and banner ads, which include information on actions to reduce pollution and protect health and the air quality action guide, were distributed to Clean Air Partners participants and members. Approximately 2,000 pieces of printed material were distributed at various outreach events across the region.
- An employer toolkit providing turn-key materials was distributed to Board members, sponsors and partners. Toolkit materials included print and digital collateral materials.
- Clean Air Partners launched their Breathe Easy summer campaign to educate residents on actions they can take to improve the region’s air. The campaign was kicked-off with a press/awards recognition event at Federal Hill in Baltimore on June 21, coinciding with the first day of summer. The event featured a number of speakers and recognized student winners from the poster contest.

- In July 2018, Clean Air Partners with support from WGL held its fourth Breathe Easy Concert promotion. The promotional event includes a concert ticket give-away targeting residents within the greater metropolitan Washington, D.C. region. The promotion asked residents to perform and post/share clean air “actions for a chance to win a pair of tickets to see Beyonce’ and JAY-Z.
- Transit ads were on display during July through September with ten local transit agencies. The messaging promoted simple actions residents can take to improve the air.
- Clean Air Partners continued to educate students through *On the Air: Exploring Air Pollution Sources and Solutions*. *On the Air* education curriculum engages students in the exploration of their environment as they study important air pollution topics such as Criteria Air Pollutants, the Air Quality Index, Ozone, Particulate Matter, Our Lungs and Health, Community Sources and Solutions, and Climate Change. More than 5,000 students used the curriculum during the past year.
- Clean Air Partners continued to reach students through the slogan contest promoting interdisciplinary learning. Students were challenged to develop themes relative to air quality. The contest received 200 entries and provided the theme for the Poster Contest.
- Clean Air Partners’ sponsored its tenth annual poster contest for students in grades 4 through 8 residing in the Baltimore-Washington metropolitan area. Students from across the Baltimore-Washington region integrated science and art and submitted posters on air climate and climate change.
- This year Clean Air Partners conferred eighteen awards for best science fair project addressing air quality and climate change in Baltimore, Fairfax, Alexandria, Falls Church and Arlington, Frederick, Montgomery, Prince George’s, Prince William County and Washington D.C.

Clean Air Partners participated in a Farmers Market Tour throughout the metropolitan Washington-Baltimore region. During the tour, Clean Air Ambassadors engaged with the public to educate them on actions they can take to improve the air. Residents were entered to win prizes such as Bikeshare memberships and transit passes by downloading the Clean Air Partners mobile app.

- Commuter Connections supports Clean Air Partners through an annual sponsorship.

Strengths

The Clean Air Partners program appears to be accepted by the business community. The tasks requested from employers and employees appear to be having minimal barriers of acceptance, perhaps because the behavior shift is requested for only a specified day, and they perceive their actions will provide a solution. Additionally, information about air quality is widely placed in the newspapers, on the Internet, and on TV and radio announcements so that checking air quality during the summer is akin to checking the weather report. Therefore, air quality alerts become a part of the region's meteorological vernacular, and eventually, with sufficient marketing, the population will equate air quality alerts to specific behavior, such as:

- Combining errands by vehicles
- Refueling the car before dawn or after dusk
- Ridesharing
- Taking transit
- Telecommuting
- Using gas or electric grills instead of charcoal
- Using electrical instead of gas-powered lawn & garden equipment

A variety of materials and programs have been put together by Clean Air Partners in recent years. These include media campaigns and outreach programs. Other activities include transit and digital ads, social media campaigns, media relations, and distribution of Clean Air Partners materials through events, members, and participants.

- Ozone and Particle Pollution displays are provided on www.cleanairpartners.net in real-time to the media. The displays allow members of the media to monitor the air quality at its current state and report this information instantly to the public.
- Collateral materials to promote clean air include magnets, rack cards, flashlights and notepads that are provided to members and distributed to the public during community events.
- Services provided to participating employers and individuals include daily and real-time health e-mail notifications. Also, members of the media, including print, radio, and TV stations are notified each day on the status of the air quality.
- Daily air quality forecasts, real-time and historical data, EnviroFlash registration, air quality app and quality information are available on the Clean Air Partners web site. The web site displays the current and next day forecasts, for Metro Baltimore, Metro Washington, Western Maryland, and Eastern Shore regions.

Weaknesses

- Most people don't believe air pollution is a problem in the metropolitan Washington-Baltimore region although the perception is that air quality has stayed the same or gotten worse.
- Most of the population does not understand that problems from air pollution can be contained by their actions. Few have made changes to reduce pollution, with the exception of actions to save money like conserving energy.
- Much of the ozone problem is perceived as weather dependent, and not dependent on behavior.
- Most of the public is more likely to change their activities on Code Orange and Red Days to protect their health not reduce air pollution.

Opportunities

These activities have led to the recruitment of nearly 5,000 subscribers in the Clean Air Partners program in the Baltimore/Washington area. Participants have distributed thousands of pieces of literature on behalf of Clean Air Partners.

With a stronger alliance with groups such as, health and environmental experts, transit operators, and schools, a promotion for the year-round pollution problem should continue to be enhanced with a strong level of advertising and community relations.

The Clean Air Partners Board unanimously voted to amend the organization's by-laws to include greenhouse gases and climate change. The rationale for this decision is self-evident – virtually all voluntary actions Clean Air Partners encourages the public to take to reduce ozone and particle pollution have a direct effect on reducing greenhouse gases (such as carbon dioxide) which contribute to climate change. This change enables Clean Air Partners to play a more significant and relevant role in air quality issues considering the local and national attention climate change is receiving.

Challenges

Studies show that the audience understands the harm pollution imposes but do not understand the extent of pollution and do not know what to do about it.

Despite improvements in the region's air quality, challenges lie ahead. The EPA announced a new, stricter standard for ground-level ozone in 2015. As a result, the region may see an increase in the number of Code Orange days. Clean Air Partners faces some difficult challenges in its purpose to encourage employers and individuals to take voluntary action in clearing the air when they may be called upon more frequently to take action. With the possibility of additional unhealthy air days, Clean Air Partners will continue to face the challenge of securing employer commitments to take voluntary actions.

A lack of employer/private sector funding for Clean Air Partners through donations will prohibit Clean Air Partners' growth.

REWARDS PROGRAMS

'Pool Rewards

Commuter Connections rolled out a carpool incentive demonstration project in October 2009 in the Washington region. The program aimed to encourage solo drivers to try carpooling through financial incentives. Underlying such programs is the belief that solo commuters are more likely to change their driving habits when offered incentives to carpool. The program branded as 'Pool Rewards offers cash to commuters who were previously driving alone to work through one of three specific corridors in the Washington region (later expanded) when they agreed to start or join a new carpool.

The initial corridors selected for trial demonstration project were I-495 from Bethesda to Tyson's Corner; I-495 from MD-295 (Baltimore-Washington Parkway) to I-270; and I-395 from Washington, D.C. to Northern Virginia. In February 2010, the boundaries restrictions were lifted and the program was opened up to include all roadways within the region.

'Pool Rewards encourages current drive alone commuters to try carpooling and if eligible commuters earned \$2 per day (\$1 each way) for each day they carpool to work over a consecutive 90-day period as assigned by Commuter Connections. The maximum incentive for the 90-day period is \$130 in exchange for going online and logging travel information and for completing surveys about the experience.

Each new carpool must have commuted to work an average of two or more weekdays for the duration of the 90-day program. Applicants must not have used an alternative commute mode (i.e., carpool, vanpool, transit, bicycle, walk) more than three days in the 30 days prior to applying for 'Pool Rewards. The focus is on commuters therefore students are not eligible. Participants must read all guidelines before being considered for participation.

In FY2011, the demonstration project participants were surveyed, and more than 70 percent of the initial 100-plus participants identified 'Pool Rewards as a valuable motivator to get them out of driving alone and into carpools, to and from work. In October 2010, encouraging results led to the continued use of the incentive project. New participants were also surveyed in FY12, FY13, FY14 and FY17. Results from the FY2017 survey showed that 80% of all 'Pool Rewards past participants continued to use an alternative mode to commute at least three years after the incentive ended.

In FY12 the program was expanded to include vanpools and in May 2012, COG began accepting applications for the vanpool portion of the 'Pool Rewards project. A new logo was subsequently developed for 'Pool Rewards to include a new tagline and to visually encompass both carpools and vanpools. The tagline selected to accompany the logo was "It pays to Rideshare." Between 2015 and 2017, vanpools participating in the program reduced 233 daily vehicle trips and 8,552 daily vehicle miles of travel.

A double-sided 'Pool Rewards rack card was created to promote the program. One side of the card addresses carpools and the other vanpools. 'Pool Rewards vehicle magnets were also developed and sent to each new vanpool's coordinator along with a welcome letter. A 'Pool Rewards radio spot was developed to incorporate carpools and vanpools.

Newly formed vanpools with seven to 15 passengers can qualify for up to \$200 per month. The funds will be used to offset monthly lease costs charged by the vanpool companies participating under contract with COG for this special program. The expanded 'Pool Rewards program offers incentives to

vanpools originating from D.C., Maryland, West Virginia, Pennsylvania, or New Jersey, with a destination anywhere in the Washington metropolitan region. Enterprise Rideshare works with Commuter Connections to offer monthly van leases to vanpool groups of 7, 11, and 15 passengers. The 'Pool Rewards vanpool program placed its first vanpool on the road in June 2012.

Flexitime Rewards

Commuter Connections developed Flexitime Rewards in conjunction with the University of Maryland and launched a pilot program in December of 2017. The Flexitime Rewards system sends notifications to commuters when heavier than normal traffic congestion is detected along their route, during peak travel periods.

Eligible commuters who register for the Flexitime Rewards program will receive notification on days when higher-than-average traffic congestion occurs along the corridor* they travel for work. Participants who fulfill the requirements of the program are entered into a monthly raffle drawing for a chance to win a cash prize from Commuter Connections. During FY2019, new geolocation services on the Commuter Connections mobile app will allow for the detection of real time flexing of hours by participants which will allow for a direct cash incentive. Requirements include signing up for Flexitime Rewards, delaying work departure time to avoid significant congestion (based on received notifications), and logging their trip.

*Eligible corridors include:

- I-495 IL between VA-267 and I270 Spur
- I-495 OL between I-95 and MD-193
- I-66 EB at VA-267
- DC-295 SB at Benning Rd.

Work schedule alternatives is a catch-all phrase used to describe various benefits offered by employers which allow employees the option of adjusting their work arrival and departure days and/or times. Benefits may include flextime, compressed work weeks, or staggered work hours. Employers who already offer some form of work schedule alternatives are ideal to help promote Flexitime Rewards.

MARKETING STRATEGIES AND BUDGETS FOR REGIONAL PARTNERS

GO Alex – City of Alexandria

www.alexandriava.gov/GOAlex

Marketing Budget: \$160,000

Go Alex is the City of Alexandria's transportation program for promoting and encouraging time and money saving alternatives to travelling by Single Occupancy Vehicle (SOV), with the goals of reducing traffic congestion, facilitating mobility, and improving air quality.

Ongoing employer outreach marketing and promotional activities include:

- **Employer Services:** Meetings with Alexandria employers to discuss transportation and telework options for employees. These meetings encourage employers to offer a transportation benefits program that includes SmartBenefits, Virginia Telework Tax Break and ridesharing.
- **Grass Roots Marketing:** Grassroots Outreach Marketing Program supports Go Alex's initiatives by targeting both local businesses and City residents to create awareness, inform, educate, and ultimately build advocacy and effect positive behavior change.
- **Go Alex Web site:** www.alexandriava.gov/GOAlex is the program web site that offers news and tools for traveling to, from, and through the City. The site is promoted to residents, businesses, and visitors via brochures, displays, newsletters, partner Web sites, Facebook and promotional items. The site provides information about public transportation, ridesharing, walking/bicycling, telework, Guaranteed Ride Home, upcoming meetings and events, Capital Bikeshare, 'Pool Rewards and other information.
- **Promotional Events:** Conduct outreach at worksites and residential communities. Go Alex also participates in health and benefits fairs, and events coordinated by TMP representatives, other TDM organizations, and government agencies. Go Alex organizes and markets the Alexandria Bike to Work Day pit stop, Try Transit Week promotions, and other events as needed. Go Alex participates in City events, such as the Alexandria Red Cross Waterfront Festival, the Alexandria Birthday Celebration, Earth Day, Alexandria Education Partnership activities, Chamber of Commerce events, and others.
- **Other Marketing initiatives:** Includes newspaper and online ads, new homeowner mailings, bi annual print newsletter, monthly electronic eNews Newsletter, and interactive Facebook page.
- **Alexandria Mobile Transit Store:** The City's Mobile Transit Store provides one-stop shopping for Metro, VRE, MARC, Circulator, and DASH fares with the convenience of flexible but consistent locations and times all around the entire City. You can also purchase and load funds onto the standard SmarTrip cards in addition to the popular Senior SmarTrip. The Store's calendar can be found at www.alexandriava.gov/TransitStore

ARLINGTON COUNTY

www.arlingtonva.us

Marketing Budget \$800,000 for Commuter Services broken down as follows:

Arlington Transportation Partners - \$50,000.00

Umbrella campaign - \$540,000.00

Commuter Stores, CommuterPage.com and CommuterDirect.com - \$100,000.00

Arlington Transit - \$110,000

Arlington County Commuter Services will do the following:

- Direct Mail Program to Arlington households
- Arlington cable TV (ATV) programs
- On –Board bus interiors
- Subway tunnel 2-sheets advertising
- Google AdWords, Facebook and YouTube advertising
- Sponsorships of local community events
- Retail kiosks and point-of-purchase displays
- Newspaper advertising
- Street team outreach at events
- Quarterly newsletter and packages for top 400 employers
- E-mail alerts and newsletters
- Websites, mobile tools and apps
- Social marketing such as Facebook, Twitter, Instagram and blogs
- Videos for YouTube, ATV and websites
- Brochures, flyers and posters
- Spanish language brochures and websites
- Transit screens

COMMUTER CONNECTIONS

www.commuterconnections.org

Media Budget \$1,313,230

FY 2019 Work Program for the Greater Washington Metropolitan Region

Guaranteed Ride Home Washington, DC region

Objective: Increase the number of applicants in the GRH database by promoting GRH as a fast and reliable transportation rideshare benefit, eliminating a barrier to using transit, carpooling, vanpooling, bicycling, and walking to work.

Target market (from 2016 Commuter Connections Guaranteed Ride Home Applicant Survey Report for the Washington DC Region):

- 35-64 years old (87%)
- Caucasian (70%) and African-American (17%)
- Male (53%) / Female (47%)
- \$120,000+ annual household income (56%), \$20,000+ annual household income (16%)
- GRH registrants commute more than 30 miles (62%) / 45 minutes (72%)
- Live in Virginia (55%) or Maryland (40%) or District of Columbia (2%), another state (3%) with emphasis on Prince William (16%) and Fairfax Counties (12%)
- Works in D.C (64%), Maryland (15%) and Virginia (21%)

Tactics:

- Focus will be to target commuters in the Washington D.C. metropolitan statistical area, encouraging them to register for GRH.
- New and existing digital media – Google, Facebook, Social Media, streaming TV, and YouTube pre-roll – will be incorporated into the media mix, both paid media and value add.
- Radio advertising will focus on district radio stations serving the inner core. A tag will be added to the radio ad reminding people to call or visit the website to re-register annually. Radio may also be used to reach the region’s Hispanic and African American commuters.
- TV may be considered as an opportunity to visually present the message that’s conveyed in radio spots.
- Evaluate web advertisement (banner ads) and interactive ads geared directly toward generating registrations.
- Incorporate web with print media through interactive media such as augmented reality, to increase web traffic and reach a younger demographic.
- Evaluate print and/or transit signage to increase awareness of the GRH program.
- Leverage human interest stories on social media e.g. a quick video to be used on the Commuter Connections website.
- Update website images to integrate with the campaign.
- Direct Mail (allocation equals 5% of Work Program budget).
- Explore new ideas for Direct Mail pieces.

GRH Washington, DC Region Media Allocation: Approximately 42.4 percent of media budget.

Guaranteed Ride Home Baltimore region

Target market for Baltimore Metropolitan Region (from 2016 Commuter Connections Guaranteed Ride Home Applicant Survey Report for the Baltimore Region):

- Ages 45-64 (62%)
- Caucasian (61%), African-American (24%), Hispanic (7%) and Asian (6%)
- Male (53%) / Female (47%)
- Annual household income \$80,000+ (73%), \$160,000+ (14%)
- Commute 30+ miles (61%) / more than 45 minutes (58%)
- Lives in Maryland (71%), Virginia (15%), or Pennsylvania (6%), New Jersey (6%), DC (1%), Delaware (1%)
- Top five home jurisdictions are Harford (19%), Baltimore City (15%), Baltimore County (10%), Fairfax County (67%), Howard County (5%), and Fredrick County (5%).
- Works in Maryland (98%), DC (1%), Virginia (1%)

Tactics:

- Focus will be to target commuters in the Baltimore metropolitan statistical area and St. Mary's County in Southern Maryland, encouraging them to register for GRH.
- New and existing digital media – Google, Bing, Yahoo!, Social Media, YouTube pre-roll – will be considered as part of the media mix, as value add.
- Radio Advertising will focus on stations serving the Baltimore market. A tag will be added to the radio ad reminding people to call or visit the website to re-register annually. Radio may also be used to reach the region's Hispanic and African American commuters.
- Evaluate web advertisement (banner ads) and interactive ads geared directly towards generating registrations.
- Incorporate web with print media through interactive media such as augmented reality, to increase web traffic and reach a younger demographic.
- Evaluate print and/ or transit signage to increase awareness of the GRH program.
- Leverage Human Interest stories on social media; e.g. short video shown on website and pages.
- Update website images to integrate with campaign.

GRH Baltimore Media Allocation: Approximately 3.7 percent of media budget.

Ridematching

Objectives: Maintain and increase awareness of shared ride modes, retain current ridership on these modes; gain new riders; gain new applicants to the regional database.

Target market (from FY2018 Commuter Connections Applicant Database Annual Placement Survey Report):

- 35-64 years old (84%)
- Caucasian (57%) and African-American (22%)
- \$80,000+ annual household income.
- Commute of more than 20 miles (81%) / 30 minutes (90%)
- Live in Virginia (57%) or Maryland (40%); work in D.C. (50%) or Virginia (25%)
- Work for employers with 100+ employees (79%), work for employers with 1000 or more employees (48%)
- Work for federal agencies (66%) and private sector (21%)

Tactics:

- Radio advertising to increase awareness of benefits and ease of ridesharing. Live traffic reads provide an ideal opportunity to make the association between traffic and solution and will be investigated for feasibility.
- A Spanish-speaking radio station may be included to reach out to the region's Hispanic population.
- TV may be considered as an opportunity to visually present the message that's conveyed in radio spots.
- Social media will be considered for real-time engagement with commuters.
- Optimized online banner ads may be used on select websites to drive users to the Commuter Connections website and/or mobile Ridematching service for registration.
- Out-of-home components that make a direct connection between commuting options and saving money will be considered.
- Public relations/media communications to provide testimonials of ridesharing success stories and broaden awareness and registrations.
- Update website images to integrate with the campaign.
- Direct mail (Allocation equals 5% of Work Program budget).
- Explore new ideas for Direct Mail pieces.

Rideshare Media Allocation: Approximately 42.4 percent of media budget.

CarpoolNow Mobile App

Objectives: Increase knowledge and activity of app use, in turn easing consumer access to ridesharing.

Target Market

- Rideshare demographics.
- Younger demographics, 30yo and younger.

Tactics:

- Media and public outreach will be used to build awareness of mobile app.
- Public outreach at park & rides, focusing on slug lines.
- Focus messaging on promoting driving and the driver incentive.
- Leverage Commuter Connections brand equity in the Washington, DC Region; “another great Commuter Connections program...”
- To promote awareness, a heavy digital presence will be used to reach many potential commuters.
- Radio will be evaluated for use as a secondary media.
- CarpoolNow App may be tied to Rideshare messages and special events such as Car Free Days. For example, “...interested in Ridesharing? Check out the CarpoolNow App...”
- TV and live radio reads will be investigated to generate additional interest in the program and drive people to the website for more information.
- Video tutorial will be explored and optimize the features of the app such as the Drivers Incentive. Value add from the mass marketing campaign may be used to expand the reach of the CarpoolNow Mobile App.

CarpoolNow Mobile App Media Allocation: Approximately 1.1 percent of media budget.

'Pool Rewards

Objectives: Recruit and retain commuters in carpools and vanpools through monetary incentives.

Target Market

- Rideshare demographics.
- Younger demographics, 30 year old and younger.

Tactics:

- Media and public outreach will be used to build awareness of program and incentives.
- The primary message will be the cash incentive. Additional messaging will promote environmental/health benefits of ridesharing, such as tons of CO₂ emissions reduced, gallons of gas saved, miles of commutes logged, vehicle trips saved, and/or social responsibility of reducing traffic congestion and improving quality of life through better health.
- To promote awareness, Facebook and Instagram ads will be the primary focus, and optimized online banner ads may also be used.
- Radio will be evaluated for use as a secondary media.
- 'Pool Rewards eligibility may be tied to Rideshare messages. For example, "...interested in Ridesharing? You may be eligible for 'Pool Rewards..."
- TV and live radio reads will be investigated to generate additional interest in the program and drive people to the website for more information.
- Value add from the mass marketing campaign may be used to expand the reach of 'Pool Rewards.
- Non-cost avenues such as Craig's List and the Commuter Connections bulletin board may be used.
- Consider opportunities to expand into Spanish radio.

'Pool Rewards Media Allocation: Approximately 1.1 percent of media budget.

Flextime Rewards

Objectives: Increase knowledge and participation in program; help reduce peak traffic congestion by alerting commuters of flextime options.

Target Market

- Workers with Flextime and Telework availability
- Younger demographics, 35yo and younger.

Tactics:

- Media and public outreach will be used to build awareness of program.
- To promote awareness, leveraging Social Media will be the primary focus.
- Radio will be evaluated for use as a secondary media with focus on Radio talent to help personalize the promotions.
- Continue to include Flextime Rewards messaging in existing campaigns with call to action to download and participate in Flextime Rewards.
- YouTube tutorial exploring the benefits of the program as well as a tutorial of the program.
- Creation of a sell sheet to give to businesses and hand out at events.
- Integrate Flextime marketing into Commuter Connection Website.

Flextime Rewards Media Allocation: Approximately 1.1 percent of media budget.

Special Events

Objectives: Use special events, such as Bike to Work Day, Car Free Days, and the Employer Recognition Awards to highlight existing programs and encourage other employers and commuters to become involved, increase their ridership, or enhance their on-site programs; increase commuter participation in Bike to Work Day and Car Free Days.

Target Markets:

- Car Free Days 2018:
 - SOV drivers; car-heavy families and individuals; students;
 - Ages 16-65.
 - Male and female.
 - Caucasian and Hispanic.
 - Live/work in DC metropolitan area.
- Bike to Work Day 2019 (from [FY 2016 BTWD TERM Analysis Report](#)):
 - Ages 25-55 (92%)
 - Male 64% and Female 36%
 - Caucasian 86%, Hispanic (4%), Asian (4%).
 - HH income \$80k+ (77%)
 - Works for federal agency (35%), private sector (32%), non-profit (21%)
 - Lives in VA (42%), DC (32%), and MD (26%)
 - Lives in Montgomery (20%), Fairfax (18%), and Arlington (13%) counties
 - Works in DC (52%), VA (30%), and MD (18%)
 - Works for employer size of 100+ (66%)
- Employer Recognition Awards 2019:
 - Level 3 & 4 Employers in Commuter Connections Network area

Tactics:

- Car Free Days (CFD) September 21 and/or 22, 2018:
 - Secure corporate, retailers, and other sponsorships for CFD, with a focus on consumer retailers.
 - Focus on teleworking and vanpool in addition to family-friendly messaging.
 - Explore teaming with media channels to promote and cover local events.
 - Expand digital and social media, explore video ads, digital radio, digital video and YouTube as primary media.
 - Evaluate using young radio personalities through on-air and online/social media communications to increase awareness of CFD and drive listeners to carfreemetrodc.org to pledge.
 - Provide marketing collateral such as posters.
 - Transit /outdoor signage (bus exterior and bus shelter ads).
 - Text messaging.
 - Email blasts and mailings to employers and past participants.
 - Engage Transportation Planning Board members through Proclamation and encourage jurisdictional partners to do the same.
 - Increase University Challenge participation through campus commuter programs, clubs, media, and RA Directors. Create challenges between universities and workplaces for most pledges.
 - Compliment paid digital and social media with a strong earned media plan as well as outreach to employers, schools, and key influencers like bloggers and podcasters.

- Email after the event to all of those who pledged, offering congratulations, appreciation, and a list of the benefits of going Car Free or Car Lite, along with a link to the Commuter Connections website for more information on programs to sustain a car free lifestyle.
 - Newsletter articles.
 - Reach 10,000 pledges.
 - Include a real-time pledge leaderboard by mode on the web site.
- Bike to Work Day (BTWD) May 17, 2019
 - Secure corporate and other sponsorships.
 - Use an integrated mix of radio, social media, and display ad advertising to boost registration.
 - Provide additional marketing collateral and advertising including t-shirts, posters, and rack cards.
 - Should additional sponsor dollars become available, provide additional marketing such as pit stop banners, print ads, various signage, and participation identifiers (e.g. BTWD rubber bracelets).
 - Email blasts and mailings to employers and past participants.
 - Earned Media to reach minorities and women.
 - Engage Transportation Planning Board members through Proclamation and encourage jurisdictional partners to do the same.
 - Goal set by Committee (approximately 5% above previous year's number).
- Employer Recognition Awards
 - Coordinate the Employer Recognition Awards ceremony, June 2019.
 - Provide brochure/nomination form in support of the nomination process; online application and email blast to potential nominees.
 - Marketing collateral for the event including invitations, program brochure, podium sign, and promotional giveaways.
 - Print advertisement in major business publication(s) highlighting winning employers.
 - Earned media for the event and winners.

Special Events Media Allocation: Approximately 4.4 percent of media budget for BTWD, Approximately 3.3 percent of media budget for CFD, and less than 1 percent of media budget for Employer Recognition Awards event.

Employer Outreach

Objectives: Add new employer clients; expand participation and offerings in existing employer programs; recognize existing employers who have implemented successful employee commute benefit programs; increase the number of employers offering the tax-free commute benefits; increase use of SmarTrip® offered through employer programs as well as other TDM strategies such as telework, flextime, and Ridematching.

Target Market (from FY 2018 Commuter Connections Applicant Database Annual Placement Survey Report):

- Employers with more than 250 employees (68%)
- Private sector employers (21%)

Tactics:

- Update web content as required
- Update social media applications (e.g. Facebook) for Telework
- Quarterly employer newsletter
- Quarterly Federal Employee Transportation Coordinator (ETC) newsletter insert
- Email marketing and mailings
- Continuously update Federal ETC website information
- Employer Case Studies.

Employer Outreach Media Allocation: 0 percent of media budget.

DATA - DULLES CORRIDOR

www.datatrans.org

Marketing/Publication Budget - approximately \$50,000

The Dulles Area Transportation Association (DATA) is a transportation management association (TMA) that serves a 335-square mile area surrounding Dulles Airport. DATA works under contract, through grants and with membership investment to complement transportation demand management (TDM) efforts in Loudoun County, Fairfax County, and the portion of Prince William County along the I-66 corridor to the south. As a public-private partnership, DATA is able to undertake innovative approaches to congestion mitigation impractical for agencies dependent only on public funding. DATA's business connection sets this TMA apart from other like-minded organizations.

DATA's paid members combine with over 40 advisory members including employers, local governments, public officials, property owners, and honorary members from government entities interested in transportation mobility in the Greater Dulles Area. The staff includes one full-time Executive Director, one full-time Director of Sales and Marketing, two full-time Mobility Managers plus one part-time Grant Manager and one part-time Database/Grant Billing Manager.

Central to DATA's employer outreach efforts is the revolutionary *Live More Commute Less*[®] initiative which began in 2013 with the launch of www.livemore.us. Not just a resources site that links visitors to County and the regional Commuter Connections transportation websites, *Live More Commute Less*[®] is designed to initiate commuter behavior change through engaging content. In 2015, DATA began publication of *@livemore*, a lifestyle tabloid that highlights activities commuters can enjoy – from cheering on the home team to gardening to attending concerts and kayaking – with the time and money saved by abandoning single occupancy vehicle commuting. (See below)

Although DATA already maintains a member-oriented Facebook page, *Live More Commute Less*[®] aggressively employs social media to encourage commuters to adopt alternative modes. Corollary applications include a Twitter account and Facebook page as well community events to engage commuters in "living more."

The *Live More Block Party*, a super-size transportation fair with a message, combines displays from private transportation vendors, county transportation services groups, and health and wellness providers with activities like a face painter and organizations like the Virginia DMV 2Go and Friends of the Fairfax County Animal Shelter to boost attendance. In 2018, more than 200 people and 16 vendors participated in the event at Reston Town Center.

To further the *Live More Commute Less*[®] brand, DATA began bi-monthly publication of *@livemore*, a lifestyle tabloid focusing on the activities commuters can enjoy by exercising choices other than the single occupant vehicle. Its 20,000 copies are distributed at no charge through 80 locations including public libraries, government centers, visitors' centers, major employers, and at select Metro and VRE stations. The publication includes articles on regional transportation topics and entities, new commuting apps, a robust events calendar plus features on area attractions and destinations.

DATA continues to conduct regular meetings of its Employer Council (composed of human resource professionals and/or Employer Contacts appointed to work with DATA to further congestion mitigation efforts) and to expand both Council membership and its scope of inquiry. In 2018, the Council is being re-branded as the E2E Forum. In addition to meetings focusing on traditional mobility management

strategies like teleworking, transit benefits and ridesharing, DATA's E2E Forum presents programs on broader business issues like the role of TDM strategies in emergency preparedness and continuity of operations. In addition, E2E Forum presentations serve to keep members abreast of new developments in congestion mitigation including dynamic ridematching and smartphone applications.

DATA publishes a quarterly *DATA Details*, which is electronically distributed to over 1500 employers and elected officials, providing comprehensive information on DATA activities as well as general developments in the transportation field.

DATA is spearheading an inclusive vanpool formation effort through a Vanpool!VA grant that underwrote the wrapping of an Enterprise van in eye-catching graphics and that provides incentives including two months free to introduce interested commuters to the concept of vanpooling. The Westfields Business Owners Association and the Sully District Supervisor's office have been particularly helpful in this effort. Additionally, DATA participates in Transportation and Employee Benefit Fairs at employment sites – annually at the Aerospace Corporation, the National Reconnaissance Office, Oracle, Reston Hospital Center and Northwest Federal Credit Union to spotlight transportation alternatives and encourage employee use of commuting modes other than the single occupancy vehicle.

DATA's Annual Transportation Roundtable brings together representatives from the Virginia Department of Transportation, the Virginia Department of Rail and Public Transportation and from Fairfax, Loudoun, and Prince William Counties to provide up-to-date information on transportation infrastructure and TDM options.

DATA continues to maintain an active seminar schedule in cooperation with peer organizations and major employers. Topics range from teleworking to the impact of Metrorail to Dulles on area businesses. Partner organizations include WMATA, Committee for Dulles, and Transform 66. DATA events like seminars and its Anniversary Celebration continue to afford DATA members and the Dulles business/citizen community access to transportation advocates like Hon. Shannon Valentine, the Commonwealth of Virginia's newly-appointed Secretary of Transportation.

DATA's Onsite Ridematching Program - which began as the grant-funded Rotating Rideshare program providing bilingual (English/Spanish) Ridematching assistance to area hotel employees - has served more than 20 properties, employers and community and faith-based organizations over the past 5 years including large employers and Dulles International Airport. DATA is currently in the process of obtaining limited security credentials to facilitate increased ridematching IAD.

In FY19, DATA will begin providing bi-lingual ridematching services to seniors and persons with differing abilities under a federal Enhanced Mobility grant. This will include recruiting volunteers as well as the more traditional ridematching activities.

DISTRICT OF COLUMBIA

www.ddot.dc.gov, www.goDCgo.com

DDOT's transportation demand management program operates as goDCgo which became a full service TDM program in March 2010 and encourages the use of sustainable transportation including walking, biking, and taking public transit. As the leading resource for transportation information, goDCgo provides commuters, residents, and visitors with the education and assistance they need to make more informed choices about their daily travel. The program reduces single-occupancy vehicle travel, decreases traffic congestion, and improves air quality to create a better quality of life in the District

goDCgo works with employers in the District to promote sustainable transportation by providing assistance with the development and implementation of commuter benefits programs and transportation amenities. These programs are strategically designed to mutually benefit the organization and its employees. goDCgo's trained employer services specialists work one-on-one with the employer to evaluate transportation challenges and identify solutions to decrease the employee drive-alone rate, help the organization reduce their carbon footprint, and create a commuter-friendly workplace.

Complimentary employer services include:

- Employee commute surveys
- Customized marketing materials
- Step-by-step guidance with implementing the DC Commuter Benefits Law
- Seminars, workshops, and webinars
- Discounted Capital Bikeshare Corporate
- Membership
- Assistance with office relocation
- On-site tabling for transportation or health and wellness fairs

FAIRFAX COUNTY - Fairfax County Commuter Services
www.fairfaxcounty.gov/transportation/commuter-services

Total Budget: \$1,039,000

With a population over one million and the region's largest employment center outside of the Metropolitan Washington D.C. core, Fairfax County is committed to improving mobility for all who live, work or travel in the county. The Fairfax County Commuter Services (FCCS) promotes and implements TDM strategies throughout the county to reduce traffic congestion and provide transportation alternatives. FCCS focuses its marketing and trip reduction efforts on employers with 100 or more employees, but also responds to requests from smaller employers. FCCS has implemented high-level TDM programs at 296 Fairfax County employers.

The Commuter Friendly Community Recognition Program has partnered with over 272 residential developments, multi-family complexes and associations to promote use of alternative modes of transportation. The Commuter Friendly Community Recognition Program is dedicated to encouraging people who live, work or commute in/or through Fairfax County to use transit, carpools, vanpools, walking, biking, or teleworking instead of drive alone commuting.

FCCS ridematching program assists more than 15,000 commuters each year. Some of the programs and services offered include customized commuter programs design and implementation support, SmartBenefits Plus50 Program, commuter connection ridematching and guaranteed ride home programs, as well as planning for telework programs, incentives, and flexible schedules implementation.

FCCS offers employee density plots, commuter surveys, Employee Transportation Champion (ETC) training manuals and general support for workplace transportation benefit programs. It also establishes Transportation Information Centers, and hosts employee fairs and workshops as well as carpool and vanpool formation meetings at major employment sites. For special promotions, such as Try Transit Week or Bike to Work Day, email blasts, posters, banners and other materials are provided to employers, for internal promotion efforts.

The Fairfax County Board of Supervisors, in partnership with the University of South Florida's Center for Urban Transportation Research, has designated nearly 100 Fairfax County employers as "Best Workplaces for Commuters" (BWC) since the inception of the county program in 2010. The BWC designation acknowledges employers who have excelled in implementing green commuter programs. These types of TDM programs improve mobility by reducing the number of single-occupant vehicles on the roads. By meeting CUTR's National Standard of Excellence and offering high-level commuter benefits, qualifying employers are recognized annually at a Fairfax County Board of Supervisors ceremony for the range of transportation options offered to employees.

The BWC program is a win program for all:

- Employers benefit from the recognition as a "green" workplace, and are better able to attract and keep employees;
- Fairfax County benefits from having "green" employers whose efforts reduce traffic congestion;
- Employees benefit by having commute options like transit subsidies, reserved parking for carpools, teleworking and flexible work hours.

FCCS Outreach Activities include:

- Employer/Commuter Benefit Fairs
- Large scale DOD Outreach Events
- Chambers of Commerce partnerships and events
- Special promotions around themed days/weeks:
 - Bike to Work Day
 - Dump the Pump Day
 - Car Free (or Lite) Day
 - Try Transit Week
 - Countywide Earth day Events
- Large-scale community events such as Fall for Fairfax Festival and Celebrate Fairfax
- Annual Employer Recognition event for “*Best Workplaces for Commuters*” in front of the Fairfax County Board of Supervisors.
- District Town Meetings and other Community Meetings

Other marketing and advertising activities include:

- The SmartBenefits Plus 50 incentive program
- In-and out-of-home (multi-pronged, scalable and geo-targeted) advertising campaigns:
 - Radio on-air and online ads, including digital providers
 - Videos on cable TV, YouTube and on our web pages
 - Social media posts and tweets, and paid social media advertising
 - Ads in local news media (traditional and new), Human Resources industry publications, military base directories, etc.
 - Direct mail to residents and employers
 - Movie theater and digital extension ads
 - Interior and exterior bus ads
 - Bus shelter ads
 - Counter-top displays, banners and posters
 - Other platforms as they become available

FREDERICK COUNTY, TRANSIT SERVICES OF

www.FrederickCountyMD.gov/transit

Marketing Budget: \$48,500

To promote transit and ridesharing Frederick County will:

- Place advertisements in various local magazines, newspapers, and event programs.
- Place online ads advertising Rideshare and TransIT.
- Produce a quarterly newsletter pertaining to rideshare issues.
- Produce a transit-related quarterly newsletter to distribute to local agencies/individuals.
- Purchase radio ads and host live remote broadcasts at commuter events.
- Purchase giveaway items such as totes and pens for certain campaigns.
- Participate in Chamber events, including business card exchanges and other membership events.
- Attend Chamber Business Expo, Elder Expo, The Great Frederick Fair, In the Street and other community events to spread the word about transit and transportation alternatives.
- Issue press releases regarding TransIT and commuter news.
- Maintain Twitter and Facebook accounts to widen reach of publicity regarding TransIT and commuter services.
- Produce schedule brochures for public distribution.
- Contact employers via mailings and in person to promote rideshare alternatives and assist with implementation of transit benefits.
- Work with local media outlets to air PSAs on pertinent issues, such as Air Quality Action Days.
- Create partnerships with established businesses to co-market services
- Market mobile applications for simplified ridematching, ticket purchasing, trip planning, bus arrival time and location, etc.
- Survey employers and employees to determine route changes, event success, and suggested changes
- Promote mobile ticketing/trip planning options with TransIT ezFARE, the app.
- Use the Points of Interest Map to encourage visitors to use public transit

LOUDOUN COUNTY

www.loudoun.gov/commute

Marketing Budget for County Transit and Commuter Services: \$109,165

Loudoun County Commuter Services (LCCS) markets the local bus service and the commuter bus service along with all other commuting options such as carpools, vanpools and bicycling. Part of the TDM advertising budget is allocated to ads in local papers, ads in local gyms, ads on the outside of local buses and Metro-Connection buses and ads on web sites. Google Ads will continue to be our search engine that staff finances with carpooling and transit ad words. Staff is also placing schedules and flyers in public facilities such as libraries and community centers with new display racks as well as racks in employment centers, retail and business facilities. LCCS will continue our successful partnership with Loudoun County Public Libraries through sponsorship of activities and events. Staff anticipates attending over 30 community, employer and regional transportation events this fiscal year, including attendance at select farmers markets in Loudoun. In fiscal year 2019 our employer outreach program will work with employers to educate employees about the vanpool option. The program will promote a best workplaces for commuters type project. An HOV lane services the area on the Dulles Toll Road which allows for promotion of carpooling and express bus service.

MARYLAND DEPARTMENT OF TRANSPORTATION MARYLAND TRANSIT ADMINISTRATION
www.mta.maryland.gov

Total Marketing Budget: \$900,000 - 1,500,000

MTA participates in a variety of community events and projects each year including:

- Sports events – Orioles baseball, Ravens football, Baltimore Blast, and Preakness (horse racing), Susan G. Komen Race for the Cure and Baltimore Marathon.
- Local Cultural Activities – Flower Mart, Artscape Music and Art Festival, Maryland State Fair, Clean Commute Week, Bike to Work Day, African American Heritage Festival.

MDOT's MTA offers the following products and services:

- LocalLink, Express BusLink, and Commuter Bus
- Light RailLink
- Metro SubwayLink
- MARC Train
- Mobility (Paratransit)
- Taxi Access
- Neighborhood Shuttles (Mondawmin & Hampden)
- All Access College Transit Pass program for participating schools in the Maryland area
- MARC Train discounts through the national Student Advantage Program
- Statewide Ridesharing Program
- Commuter Choice Maryland commuter benefits program
- Maryland Commuter Tax Credit
- Guaranteed Ride Home
- Ride, Read, Relax Youth Program
- Transit Advertising through current contractor Direct Media USA
- Business Outreach
- MTA Transit Team Reports
- MTA Commuter Connections TV Show
- This Week with the MTA Radio Show
- CharmCard® fare payment smart card
- Reduced Fare CharmCard® fare payment smart card
- Transit Lines, On Your MARC, Wheels, Commuter Buzz Transit Today newsletters
- E-mail Notification service
- Online Pass Sales
- Local Pass Sale Outlets
- MTA Transit Store
- VIP Pass sales
- Brochure racks in hotels, corporate buildings, public buildings, welcome centers, shopping centers, military installations, hospitals, travel facilities, sports facilities, colleges, and MTA Transit Store
- Info Box schedule information at major bus stops
- Transit System Maps at Bus Shelters, Light Rail stops, Metro Subway stations and MARC Train stations

- Transit Information call center - 410-539-5000 or 1-866-743-3682
- Information website – www.mta.maryland.gov
- Bus and Light Rail Real Time Tracker System

MTA Ongoing Marketing Activities:

- Local Bus, Light Rail and Metro Subway service to Orioles and Ravens games and Preakness horseracing
- Orioles, Ravens and Preakness info brochures
- Transit ads (self promotion)
- Business and Community Outreach
- Commuter Choice Maryland commuter benefits employer/employee outreach campaign
- Maryland Commuter Tax Credit marketing campaign
- All Access College Transit Pass campaign
- Publications: Annual Report, Transit Lines, On Your MARC, Commuter Buzz, Wheels, Transit Today
- Special Events: Artscape, State Fair, African American Heritage Festival, Earth Day
- Guaranteed Ride Home marketing campaign
- English and Spanish System Maps distribution
- Collateral materials distribution
- Bus Shelter Maps development and installations
- Safety campaign
- Ride, Respect, Relax Youth campaign
- MTA Commuter Connections TV Show
- This Week with the MTA Radio Show
- I-83 Outdoor Sign
- Bus Shelter info frames and map case
- Major Bus Shelter Info Boxes
- Transit Development (i.e., Baltimore Link)
- Transportation and Benefits Fairs
- Presentations before various civic, fraternal, and business groups
- Light Rail Real Time Tracker campaign
- Bus Real Time Tracker campaign
- Social Media
- MTA Radio Station WTTZ

MONTGOMERY COUNTY, MARYLAND

www.montgomerycountymd.gov/commute

www.twitter.com/MoCoCommuter

www.rideonbus.com

www.twitter.com/RideOnMCT

www.facebook.com/RideOnMCT

www.youtube.com/RideOnMCT

www.instagram.com/RideOnMCT

Marketing Budget for FY 2019 is in the range of \$230,000 (Montgomery County Commuter Services and Ride On).

Montgomery County (MC) has a very large and diverse business base. It also has a large residential base. There are approximately 311,000 commuters who live and work in MC, 200,000 who travel to the County from other jurisdictions, and 216,000 who leave the county for other destinations. Marketing activities are conducted countywide, with emphasis on those areas in Montgomery County with high concentrations of employment and transit, the Transportation Management Districts (TMDs): Silver Spring, Friendship Heights, Wheaton, Bethesda, Greater Shady Grove, North Bethesda, and Rockville. White Oak, recently created as the sixth TMD, will also be included in the County's future TDM outreach. Marketing activities related to directly to promotion of the Ride On system are conducted by Ride On Marketing. Marketing activities related to promotion of transit of all types, car/vanpooling, walking, biking, bikesharing, telework, and all other Transportation Demand Management efforts in those areas and throughout the County are conducted by Montgomery County Commuter Services.

Employer Outreach/Programs/Services:

- Employer Meetings and Presentations: Montgomery County conducts meetings and presentations with County employers to persuade them to adopt high-level commuter benefits programs and Traffic Mitigation Plans (TMPs).
- Transportation Demand Management services focused on urban centers: The County operates six TMDs: Silver Spring, Bethesda, Greater Shady Grove (which includes the Life Sciences Center), North Bethesda, Friendship Heights and White Oak. Employer, commuter and transit services outreach efforts are concentrated in these areas of high employment concentration and urban development. Efforts are targeted at achieving the County's Non-Auto Driver Mode Share (NADMS) goals for employees commuting to those TMDs.
- Training sessions to assist employers with SmartBenefits® and the Maryland Commuter Choice Tax Credit. MC continues to provide training and support to assist employers with the use of SmartBenefits® and the Maryland Commuter Choice Tax Credit.
- Telework webinar sessions to inform employers about the advantages of telework programs and also make the business case for telework. MC continues to promote telework and help employers implement successful telework programs. Personalized telework consulting is available to County businesses using consultants provided free of charge by Commuter Services, with funding from MWCOG.
- Additional Incentive Programs: MC gives subsidies to employers that provide a transit benefit to their employees, up to \$50 per employee, per month, under the FareShare program. The County also promotes the Maryland Commuter Tax Credit and the Montgomery County Home Computer Telecommuting Incentive Tax Credit to encourage employers to adopt high-level TDM programs.
- On-Site Transportation Fairs: Commuter Services and its contractors conduct commuter information fairs at employment sites and the lobbies of multi-tenant facilities. Montgomery

County conducts property management outreach campaigns, where staff set-up large lobby displays and hold commuter information sessions at work sites throughout the county. In the North Bethesda and Greater Shady Grove TMDs, where residential Non-Auto Driver Mode Share (NADMS) goals have been adopted, outreach events are also conducted at multi-family projects.

- Commuter Survey: MC conducts a periodic commuter survey of employees that work in the County. Surveys are distributed to more than 100,000 employees through more than 200 employers, concentrating on employers within TMDs and large employers elsewhere in the County.
- Countywide and periodic area-specific e-newsletters and e-blasts. MC issues its monthly newsletter, *Better Ways to Work*, in electronic format, distributed to subscribers via e-mail. Area-specific electronic newsletters are distributed for the Bethesda and North Bethesda TMDs by those TMD contractors, and periodic e-blasts on specific topics are also issued by Commuter Services.
- Employer Recognition/Special Events: Periodically MC has conducted its Transportation Awards Ceremony and other employer recognition events to highlight businesses providing outstanding programs to address traffic congestion. Past events have featured remarks by the County Executive the Governor of Maryland, Senators, and leading business people. Other employer recognition events have included the Transportation A2CE Awards (Advocates for Alternative Commuting Excellence). These businesses are partnering with the County to address traffic congestion and air quality challenges, and contributing to a more sustainable and environmentally-friendly community, while at the same time helping their employees get to work in a less stressful and more cost-effective manner. Other types of employer recognition activities are conducted each year, including articles highlighting businesses involved with TDM efforts in the *Better Ways to Work* monthly e-newsletter.
- ACT! for Web CRM database used to track and manage contacts and relationships with over 4,000 employers in the County.
- On-line system for the filing of Traffic Mitigation Plans (TMP) and TMP Annual Reports by TMD employers. System continues to be refined and improved. A plan is being developed to redesign this system to reflect upgrades and changes in operating systems and other software over time.
- Walk & Ride Challenge: Each year Montgomery County works with employers in Bethesda, Friendship Heights, Silver Spring, North Bethesda and Greater Shady Grove TMDs to promote and conduct the 3-week Walk & Ride challenge. With approximately 1,000 registered participants, this program encourages walking and taking transit to work. Walk & Ride Challenge is hosted on its own County Web site, www.walkandride.net

Promotional Materials:

- Better Ways to Work Toolkit used in employer meetings and presentations, with contents tailored to the specific interests and needs of the business.
- Commuter Services Guide, New Employee Commuting Guide and Transit Benefit brochures used to provide businesses and employees with key information.
- Park and Ride Lot Brochure: MC produces a Park and Ride brochure with all P&R lots in Montgomery and adjoining counties, including transit services available from each lot. This guide has been updated for 2015.
- “Montgomery County Bikeways Map,” “White Oak & Vicinity Bicycle and Pedestrian” and “Medical Center & Vicinity Bike, Pedestrian and Transit,” and “Shifting Gears” maps created

and printed. All are available in hard copy and portable document format (PDF). “Biking to Bethesda” map/brochure also available.

- Websites -- MC and the TMDs continue to upgrade and refine communication strategies via several websites: Better Ways to Work (<http://www.montgomerycountymd.gov/commute>) and Ride On (<http://www.montgomerycountymd.gov/rideon>), Bethesda Transportation Solutions (<http://www.bethesdatransit.org/> and North Bethesda TMD (<http://www.nbtc.org>) websites. A special bikeshare website has also been created, <https://www.montgomerycountymd.gov/bikeshare/index.html>.
- Convert existing forms, brochures, maps, etc. to easier-to-use electronic format.
- Work with marketing services consultants to develop new or revised promotional materials as needed to support employer outreach efforts.
- A Ride On User Guide has been published and distributed to help riders new to our transit system. It discusses riding the bus, accessibility, trip planning fare media transfers and Title VI.

Advertising:

- Ads in newspapers and employer-targeted publications, and on website
- Chambers of Commerce: MC advertises its programs and services in local chamber publications, including newsletters, membership directories, dining guides, and special publications
- Use Ride On bus sides, bus stop shelters and bus interior cards to promote commuting options.
- Ride On also uses Facebook, Twitter and NextDoor.com to promote services, public forums, service changes, etc.

Commuter Outreach/Programs/Services:

- Promote Bike Transit: grants from TPB using FTA funds, and the Maryland Department of Transportation, coupled with County, City of Rockville and private sector funding, enabled MCDOT to bring the Capital Bikeshare system to Montgomery County in fall 2013, with 51 new stations opened within the following year. Commuter Services is promoting use of bikeshare through a variety of mechanisms. There are now 76 bikeshare stations in the County.
- A special program for low income bikeshare participants has been developed. Known as the JARC Bikeshare program, it provides a free one-year membership, free bike helmet, and free bike safety classes for those who qualify. Since the expiration of the JARC grant in June 2015 Montgomery County has continued the low income bikeshare program now called MCLiberty.
- *TRiPS* Commuter Store: The Silver Spring as *TRiPS* store – “*Transportation Resources, Information and Places to See*” – sells Metro and Ride On fare media, and provides transit information, maps, and schedules to commuters and visitors. Information on MARC and VRE is also available. Commuter Services and *TRiPS* coordinate with other agencies to provide increased information and assistance to commuters.
- Mobile Commuter Store: MC operates a **Mobile Commuter Store** that has scheduled stops throughout the County. The store is full-service, offering SmarTrip® cards and reloads, MARC rail tickets, Metro and Ride On bus passes, transit related items and extensive travel/commute information.
- County’s Treasury Department in Rockville also sells fare media.
- Discounted car/vanpool parking in Bethesda and Silver Spring. The Bethesda and Silver Spring Transportation Management Districts certify car/vanpools to qualify for significant parking discounts.
- Bike to Work Day. Each year over 2,000 Montgomery County bike commuters participate at one of the many Bike to Work Day Pit Stops hosted at Montgomery County locations with high employee concentrations. Locations over the past several years have included the downtown

areas of Silver Spring, Friendship Heights and Bethesda, as well as North Bethesda, NIH Main Campus, NIH Executive Blvd, Marriott International, three locations in Takoma Park, FDA White Oak, and two Rockville locations (Town Center and Shady Grove/Falls Grove).

- Car Free Day. Each year since 2008, MC has participated in the promotion of the regional Car Free Day at several locations with high concentrations of transit commuters. MC features promotional item giveaways, ridesharing applications and non-SOV commuting information.
- Bike 2 College Day. Each year MC has participated in Bike 2 College Day at the Montgomery College Rockville and Takoma Park campuses to promote biking and bikesharing as commute options for students, faculty and staff.
- Promote the 100 percent accessibility of the Ride On fleet to bicyclists along with the County's series of County bike maps. Whenever possible, a Ride On bus is brought to major events to enable demonstration of how to load and unload a bike from the bus's bike rack. The bus provides the opportunity for attendees to try the process in a low-stress setting. Broad-based community outreach is conducted periodically by Commuter Services and/or Ride On through participation at large-scale events, including the following: Earth Day, GreenFest, Senior Info Expo, Wheaton and Silver Spring Summer Concerts, Strathmore Hall Summer Concert Series, Montgomery County Agricultural Fair, Taste of Wheaton, Taste of Bethesda, Accessible Public Transportation Options Expo, Oktoberfest, Diversity Days, Health and Benefits Fairs, and Car Free Day and various ethnic festivals (e.g., Latina Heath).
- Capital Bikeshare promoted as a new transportation option for trips of less than 3 miles, especially as a way of connecting to/from transit.
- Car Sharing – Facilitating car share parking availability and promotion. The County provides public parking spaces on-street and in County lots and garages for car sharing vehicles of vendors awarded contracts under a competitive bidding process. Commuter Services promotes use of car sharing as an alternative to private vehicle ownership, and as an additional back-up provision for those using non-auto modes for commuting.
- Low income residents and employees able to obtain free bikeshare services (including free helmets and safety classes) through the MCLiberty (Montgomery County Low Income Bikeshare) program.
- Free or low-cost bike safety classes available for members of the Capital Bikeshare system in the County, as well as for other cyclists.

Transit Services:

- Promote Real –Time information project to provide riders the status of their bus
- Promote new Silver Spring Transit Center to riders in Silver Spring
- Continue to support Montgomery College student program. With validated Student ID, Montgomery College students are able to ride Ride On anytime on any route.
- Promote new monthly pass. Ongoing promotion of SmarTrip®.
- Promotion of Van Go Shuttle in downtown Silver Spring.
- Promotion of Bethesda Circulator in downtown Bethesda
- Promote availability of new Senior SmarTrip® with special identity card now sold at MC Public Libraries.
- Promotion of Seniors and People with Disabilities Ride Free on Ride On and Metrobus in MC between 9:30am and 3:00pm. Monday to Friday.
- Promote Kids Ride Free program: multi-year campaign to increase number of riders 5 to 18 years of age; recruited Montgomery County Libraries as a partner to sell Youth Cruiser SmarTrip® Cards which increases the number of purchase locations from 3 to 24; recruiting schools to sell Youth Cruiser SmarTrip® Cards which has increased from 3 to 21 schools; flyers

distributed to all County schools (400+), home schools (600+), libraries, recreation centers, and community centers; advertisements on 50 buses and 60 bus shelters

- Continue to promote feeder service to MARC and Metrorail.
- Promotion of new clean diesel, hybrid electric-diesel and compressed natural gas (CNG) buses with low floors.
- Additional new buses with ramps now means Ride On is 100 percent accessible to persons with disabilities.
- Promote Metro's program for MetroAccess customers who are able to ride free with a companion on Ride On and Metro buses and rail.
- Implement a comprehensive program to install upgraded bus shelters and related pedestrian access and amenities throughout the County. This program came about in part as a result of a legal settlement which requires a private sector vendor to provide shelters in return for the County accepting advertising on many of those shelters. Specific route and neighborhood information has been posted in many of the shelters.
- Positioning of a Ride On bus at major outreach events -- This provides an opportunity for Ride On operators to serve as "ambassadors" for the bus system, interacting on a more extended basis with current and potential future riders, as well enabling cyclists to practice loading a bike on the bus.
- Promote the Give and Ride Campaign with Manna Foods which collects non-perishable food items for needy families
- Conduct Public Forums for Service Changes
- Conduct Public Forum for Fare Changes
- Post Website notices, alerts, and current events
- Promote Dump the Pump campaign to encourage use of mass transit
- Promote See Something Say Something transit security campaign
- Public Outreach: Chinese Cultural Center meeting with WMATA, Clarksburg Civic Association Meeting, Montgomery County Fair booth, Montgomery County Public Schools Back-To-School Fair booth, Customer Appreciation Days at Transit Centers and Metro Stations
- Continuing Twitter, Facebook, and YouTube social media sites to keep riders better informed
- Use GovDelivery (Granicus) email blasts and text alerts for notices and current events
- Radio and cable TV ads to promote the new Ride On extRa limited stop service along MD 355

NATIONAL INSTITUTES OF HEALTH

www.nih.gov

Since its inception, the National Institutes of Health (NIH) has been considered the steward of medical and behavior research for the Nation and reports to the U.S. Department of Health and Human Services. The NIH headquarters, along with the majority of the workforce are located in Bethesda, Maryland and the surrounding area. In addition to performing research, NIH also funds countless scientific studies at universities and research institutions across the Nation and around the World.

The Office of Research Services (ORS), Division of Amenities and Transportation Services (DATS), Employee Transportation Services Office (ETSO), located in Bethesda, Maryland, provides employee transportation services to the NIH community. The ETSO is a centralized office where employees can obtain information about parking and alternative commuting options. The office provides direction information about Commuter Connections, Carpooling, Vanpooling, the Guaranteed Ride Home Program, and Public Transportation Services (Metrorail, Metrobus, Ride On, MTA, MARC, VRE, etc.), and most importantly the NIH Transhare Program, that provides up a monthly commuter subsidy up to the maximum benefit allowed by Title 26, U.S.C. , § 132(f). The goal of the NIH Transhare Program is to relieve traffic congestion and reduce energy and environmental concerns in the DC Metropolitan area. Use of the NIH Transhare Program is a key element of the NIH Transportation Management Plan, used by approximately 30 percent of eligible employees.

NIH has encouraged use of public transportation as a proactive means of reducing parking demand on the NIH campus. Transhare, with over 5,800 participants, has been the single most effective tool in promoting and expanding the use of public transportation and vanpools. By our estimates, the use and participation of our employees in the NIH Transhare program, has reduced miles driven daily by single occupied vehicles by over 135,000 miles. All the alternative transportation programs combined reduced miles driven by 58 million and saved over 3 million gallons of gasoline annually.

In order to limit single occupancy trips, Carpool parking spaces have been established in prominent parking lots located in close proximity to the buildings. Spaces reserved for Carpool parking spaces are restricted until 11:00 a.m., when they are opened to all commuters. Vanpools may also request a reserved space in their lot of choice, 24 hours a day. NIH has 19 vanpools with over 150 members. Vanpool members who are eligible for Transhare may use the transit subsidy to off-set their portion of the vanpool cost.

The ORS, in conjunction with the Office of Facilities Planning (ORF) is responsible for providing shower and locker facilities in nine campus buildings and four off-campus locations, predominantly for the use of bike and walking commuters. Bicycle racks and lockers accommodate 600 bicycles. NIH has a large and active Bike Club whose slogan reads "Non-polluter, Commuter." The NIH Bike Club members volunteer to clean bike trails and supports DATS by promoting bicycling as a healthier commuter option. NIH has led the region for the last eight consecutive years as the employer with the most Bike-to-Work Day participants. NIH has won several prestigious awards from the Metropolitan Washington Council of Governments for Bike-to-Work Day. Also, NIH provides a pedestrian friendly campus well-lit pathways and large safety crosswalks for its walking commuters.

To promote our relationship within the community, NIH partners with the North Bethesda and Bethesda Transportation Management Districts. Our partnership goals are to: improve transit services in the area, to increase ridership on public transportation, and to provide transit-friendly amenities, to cut traffic congestion, increase transportation capacity, reduce air and noise pollution, and to promote bicycle and pedestrian access and traffic safety.

The DATS Campus Shuttle Service consists of 13 shuttle routes that provide services for patients, and employees who commute from off-campus satellite parking lots and government facilities. Users of this service can see real-time GPS tracking of shuttle locations to minimize wait times. The DATS web site features an e-mail Listserv that currently has over 1,400 employee subscribers who receive current and up-to-date parking and transportation information. NIH has also instituted a pilot program for electric vehicle charging stations for eight spaces around the campus.

To promote NIH's employee transportation options, DATS creates posters; tabletop displays, desk-to-desk publications, campus wide and employee targeted e-mails, and contributes to the campus newsletters (NIH Record). NIH also participates in a monthly parking/transportation-working group with other regional partners, including the Montgomery County Department of Public Works and Transportation, Walter Reed National Medical Center, and Suburban Hospital. Throughout the year, the ETSO sponsors or participates in various promotional events designed to provide commuting alternatives to employees.

The ETSO uses technology extensively to improve success with employees using alternative commuting methods. This includes an internally developed IT system called Commuting and Parking Services (CAPS). The system, which is linked to the agency's employee personnel database, assists the ETSO in matching employees to alternative commuting options. Employees regardless of the commuting method they utilize, can sign up for the system's Ridematching service. The service allows employees to search for and "share" rides with other NIH employees who live and work near them. The system also allows ETSO staff to search for employees by work locations and home zip codes to and strategically target employees by email for vanpool and carpool creation.

The NIH, DATS, ETSO has also been recognized for the following:

- Health and Human Services Green Champion Award (2014)
- "Employer Recognition Award" (2013) – for Incentives presented by Commuter Connections.
- "Best Workplaces for Commuters" presented by The United States Environmental Protection Agency
- "Outstanding Participation and Support in the Federal Transit Benefit Program" presented by the Washington Metropolitan Area Transit Authority
- "Quality of Work Life" presented by the National Institutes of Health
- "Golden M Award for Metrocheks Leadership" presented by the Washington Metropolitan Area Transit Authority
- "Outstanding Service Award" presented by the Washington Metropolitan Area Transit Authority
- "Employee Transportation Coordinator of the Year" presented by the Association of Commuter Transportation
- "MWCOCG Bike to Work Day Award" for the highest employee Bike to Work Day Participation presented by Commuter Connections

Information regarding the DATS/ETSO can be found at the following web address:

https://www.ors.od.nih.gov/pes/dats/parking/Pages/parking_info.aspx

NORTHERN VIRGINIA TRANSPORTATION COMMISSION

www.novatransit.org

<https://twitter.com/NoVaTransit>

www.facebook.com/NoVaTransit

Total Operating Budget: \$3.2 million

I-66 Inside the Beltway Toll Revenue: \$15 million

NVTC serves as a regional forum for discussion and analysis of transit issues that are critical to our economy and quality of life. Founded in 1964, in part to represent the interests of the Commonwealth of Virginia during the establishment of the Washington Metropolitan Area Transit Agency (WMATA), NVTC is charged with the funding and stewardship of WMATA and the Virginia Railway Express (VRE), which it co-owns. Because Northern Virginia is home to six bus systems, NVTC works across jurisdictional boundaries to facilitate improved transit service, leverage joint procurements, and coordinate emergency response to transit incidents. NVTC also is the lead agency in the administration of the I-66 Commuter Choice program, a multi-decade effort that uses toll revenues to support transit and TDM activities along the interstate corridor. A similar program in the I-95/I-395 corridor will be administered jointly by NVTC and the Potomac and Rappahannock Transportation Commission in 2019.

About I-66 Commuter Choice

In January 2017, NVTC and the commonwealth signed a 40-year agreement authorizing NVTC to use toll revenues from I-66 inside the Beltway to fund multimodal transportation projects. These projects, designed to benefit toll payers, are easing rush-hour travel through this congested corridor.

The Virginia Department of Transportation (VDOT) controls and manages tolling on I-66. Toll revenues are used to support the facility's tolling operations and maintenance, and to fund transit and related roadway improvement projects selected by NVTC and approved by the Commonwealth Transportation Board (CTB). Funding amounts are determined annually based on the revenue generated by the tolling.

The I-66 Commuter Choice program identifies and funds projects that:

- move more people
- increase opportunities to connect from one mode of travel to another
- improve transit service
- reduce roadway congestion
- increase travel options

All jurisdictions and other public transportation providers — including WMATA, VRE, and PRTC/OmniRide — in Virginia Planning District 8 are eligible to submit applications.

To date, 25 projects have qualified for nearly \$22 million in funding. Eight of the initial projects are operational and two are being implemented. A second group was approved by the CTB in June 2018 and will become operational over the course of the next year. Together, these transit and related roadway improvement projects will move an additional 7,000 people through the I-66 corridor during rush hour, saving roughly 420,000 hours annually in travel delays.

PRINCE GEORGE'S COUNTY

www.princegeorgescountymd.gov

Marketing Budget for Marketing Contract: \$108,000

TheBus - \$100,000

Several large employers such as Gaylord National Resort, MGM Casino, NASA Goddard, University of Maryland – College Park, IKEA, Giant Foods, Safeway, UPS, Kaiser Permanente and FedEx Field are located in Prince George's County. Prince George's County provides direct assistance to employers throughout the county through a coordinated Employer Outreach Program. Prince George's County will provide daily employer outreach services for employers in their service area, which will help promote voluntary commute alternatives in ways that best suit their businesses. Developing direct mail pieces to employers, organizing seminars, telemarketing and conducting on-site sales presentations to employers are a few of the many activities the County promotes. Employers are encouraged to participate in programs that include SmartBenefits, telecommuting, The Guaranteed Ride Home Program, and parking management. The RideSmart website at RideSmartSolutions.com provides employers with relevant information.

Goals are based on the following:

1. An extensive cumulative review of the companies and organizations in the ACT! database.
2. An analysis of the Commuter Connections Programs' past performance.
3. A comparison of the provisional goals for new fiscal year versus the execution of goals of the previous fiscal year.

Objective is to implement the following measures for the Commuter Connections Program:

1. Increase employer participation in County RideSmart solutions.
2. Maintain and increase participation level of active employers.
3. Decrease the number of single-occupancy vehicle trips by increasing employee awareness in companies participating in carpooling, vanpooling, the Maryland Commuter Tax Credit Program, flextime, teleworking, biking, and walking.
4. Formalize more telework, carpooling, vanpooling programs and commuting benefits offered by employers.

OMNIRIDE (formerly known as Potomac and Rappahannock Transportation Commission)

OMNIRIDE.com

Marketing Budget: \$750,000

OmniRide is a multi-jurisdictional agency representing Prince William, Stafford and Spotsylvania counties and the cities of Manassas, Manassas Park and Fredericksburg. Formerly known as PRTC, the agency has rebranded itself under the OmniRide name. It is headquartered in Woodbridge, VA, in a largely residential area with several large employers in its six jurisdictional regions, including Lockheed Martin, GMU, Sentara Northern Virginia Medical Center, Northern Virginia Community College, Micron Technology, NOVEC, IKEA and Comcast.

The focus of the organization and its marketing program is to provide sound transportation alternatives to the SOV that meet the travel needs of Prince William, Manassas and Manassas Park residents. In addition to co-sponsoring the Virginia Railway Express, PRTC operates the OmniRide family of transit services in Prince William County, Manassas and Manassas Park.

OmniRide Express buses transport commuters between Prince William/Manassas and Washington DC, the Pentagon, Arlington, Mark Center and Tysons Corner. OmniRide Metro Express buses connect Woodbridge, Manassas and Gainesville/Haymarket with nearby Metrorail stations. OmniRide Local buses travel throughout eastern Prince William County, Manassas and Manassas Park, and are great for local activities like shopping and medical appointments. OmniRide Cross County Connector buses run between Woodbridge and Manassas. The OmniRide Transit Center is the main hub and transfer center for bus services that operate in eastern Prince William County. Manassas Mall serves as the transfer center for buses that serve Manassas, Manassas Park and western Prince William County.

The OmniRide Ridesharing Program helps match commuters with carpools and vanpools that fit their needs. Through its extensive regional database, this free, personalized ridematching service links commuters who have similar work hours, origination and destination points. OmniRide also administers the Vanpool Alliance program, which provides a monthly stipend to vanpools that report ridership data. The program is a public-private partnership between OmniRide, the Northern Virginia Transportation Commission and the George Washington Regional Commission.

OmniRide Employer Services is a free service available to all businesses in Prince William County, Manassas and Manassas Park, designed to help area employers create and expand commuter benefit programs that will help employees reduce commute-related stress and save money. It also enables area employers to expand sustainability initiatives and provides them with superior recruitment/retention tools. Employer Commute Surveys, Telework Programs, Emergency Preparedness, Transit Subsidies, Carpool/Vanpool Formation, Biking/Walking to Work, Alternative Work Schedules and Parking Management are all areas of focus for this program.

OmniRide's marketing budget funds rider education initiatives, awareness media advertisements, trial-coupon programs, employer and consumer group presentations, print and online ads, brochures, printed bus schedules in English and Spanish, an interactive website, Facebook page, transportation fairs, a wide variety of community outreach activities, and a Welcome Aboard program for new residents. In addition, OmniRide has a comprehensive youth program with targeted activities by age groups. OmniRide has established location-specific transit information displays in all bus shelters and at other key stops. Customers can subscribe to the agency's Rider Express e-mail and text messaging service, which provides service alerts and other information. The Customer Service office provides service Monday-Friday, from 5:30 a.m. to 8:30 p.m., except for some holidays.

With recent approval of a new strategic plan, the agency is looking at ways to revamp its services to improve efficiency and better serve the needs of the community.

RAPPAHANNOCK RAPIDAN REGIONAL COMMISSION - Commuter Services

www.rrcommute.org

Marketing Budget: \$35,800

- Primarily a rural, residential area with a population of 170,000.
- RRRC uses regional advertising strategies via radio, digital, and print methods to promote their commuter services. They participate, support, and promote COG promotions throughout their region such as GRH and SchoolPool. The program also uses social media to advertise promotions/contests and get feedback via their Facebook page. There are various targeted advertisements that run annually including at a local movie theater and during community college registration days.
- The region has twelve official and three unofficial park and ride lots; outreach at lots occur annually and vanpools are offered participation in startup and/or support subsidies from their Vanpool Assistance Program.
- Marketing efforts have switched gears over the past few years to become more focused initiatives that target specific audiences, capitalize on particular event theming, and provide measurable outcomes.

TRI-COUNTY COUNCIL FOR SOUTHERN MARYLAND - Commuter Assistance Program

www.tccsmd.org

Marketing Budget: \$29,363 non-telework related task and \$5,554 for telework related task for a total of \$34,917

Tri-County Council for Southern Maryland (TCCSMD) was formed on December 6, 1964, as a cooperative planning and development agency to foster the social and economic development of the Southern Maryland Region. In 1965, the Governor of Maryland recognized the TCCSMD as the regional planning and development organization for the Region comprising Calvert, Charles and St. Mary's Counties. The TCCSMD's statute was established by Act of the Maryland General Assembly in 1966. The TCCSMD's enabling law was reenacted as State general legislation in 1976 (Article 20, Maryland, Annotated Code).

The purpose of the Tri-County Council for Southern Maryland is to serve as a forum for the resolution of region-wide issues and the attainment of regional goals. The Tri-County Council is a partnership of State and local government established more than forty years ago as the regional development and planning organization for Southern Maryland. As such, the Council provides a framework for cooperation and coordination among the elected, civic and business leaders of the Region; undertakes action programs that focus local, State and federal resources in a comprehensive strategy to enhance the quality of life of all the people of Southern Maryland; and initiates and coordinates plans and projects which foster the physical, economic and social development of the Region.

In carrying out these responsibilities, the TCCSMD serves as a source of information and data; engages in regional planning; serves as an advocate for the region's interests and priorities at the federal and State levels; qualifies the region for federal and State assistance; and develops programs to meet region-wide needs and goals. Key elements of the regional strategy:

- Diversify and broaden the economic base
- Preserve agriculture as a viable industry
- Restore and protect the environment.
- Implement highway improvements and expand commuter assistance services
- Manage growth and requirements for public services.

The Tri-County Council of Southern Maryland has led the regional effort to promote the use of clean fuel and alternative transportation for commuting besides single occupant vehicles (SOV), such as public transit services, ridesharing, carpool and vanpool, telecommute/telework, private transportation companies and services, including subscription bus alternatives.

Local public transportation services are available in Southern Maryland and this program works cooperatively with these agencies and on efforts related to public transportation initiatives. Calvert (Calvert County Public Transportation), Charles (VanGO) and St. Mary's (STS) counties provide both fixed-route and on demand local transit services daily. The three local transit systems are connected at Charlotte Hall in St. Mary's County and Solomons in Calvert County. The three transit systems also have links with the MTA commuter bus and serve the region's park-and-ride facilities. As the region's coordinating organization, the Annual total ridership has increased from 52,000 in 1988, when MTA started the commuter bus operation in the region, to nearly 1.74 million in recent years.

Many Southern Marylanders commute to work in the Washington metropolitan area. The Maryland Transit Administration (MTA) provides commuter express bus services to accommodate the rapidly growing commuter demand in the region. The MTA Southern Maryland commuter bus operation, which has the highest ridership growth rate, has been the MTA's most successful operation in the state of Maryland for a decade.

There are fourteen commuter bus routes between Southern Maryland and Washington. These eleven commuter bus routes are MTA commuter bus # 610, 620, 630, 640, 650 and the W19 in Charles County, 705, 715, 725 and 735 in St Mary's County, Routes #820, 830,840 and 850 in Calvert County. Southern Maryland has recently benefited from increased roundtrip runs. It is important to keep in mind that about 73 percent of Calvert and Charles county residents commute outside their home counties to work (only about 28 percent of St. Mary's residents commute outside the county borders.) Of the region's estimated 160,000 commuters (U.S. Census Bureau 2000), 57,957 are traveling outside of the region for employment, typically to the District of Columbia, Prince George's County, Virginia, or elsewhere.^{US Census} These trends will continue to stress the importance of high occupancy vehicle modes of transportation and the Council's Commuter Assistance Program.

The Tri-County Council for Southern Maryland's Commuter Assistance and Employer Outreach Program goals include increasing the awareness and highlighting the benefits of traveling by non-single occupancy vehicles. The programs obtain these specific goals through educating the region's major employers, employees and residents through a number of marketing and campaign efforts.

Major activities include:

1. Develop an overall strategic outreach plan to educate employers about the benefits of participating in and offering employer-sponsored commute alternatives or Transportation Demand Management (TDM) programs at their worksites. The particular focus of this plan will be educating employers about Maryland Commuter Tax Alternatives, Smart Benefits, Clean Commute Month Services, and other TDM Programs. The primary outreach method will be through site visits; conducting on-site seminars; participating in local fairs; and mail/email campaigns. There will also be a strong focus on a thorough follow-up plan.
2. Work with TCC's DBED program outreach specialists to coordinate outreach efforts to the area's employers.
3. Market the availability of Guaranteed Ride Home (GRH) program to area commuters and employers.
4. Develop formalized partnerships for shared marketing events with local health care professionals and human service organizations.
5. Provide coordination and assistance to the development of new vanpools, including information on available financial subsidies, rider agreements and vanpool marketing efforts.
6. Conduct seminars in the Southern Maryland region which enable participation from other Metropolitan area coordinators, particularly the areas where Southern Maryland commuters travel, including, but not limited to DC, Baltimore, Annapolis and Prince George's counties.
7. Advertise on local radio stations that provide information about commuter alternatives and employer TDM Programs.

8. Advertise on local cable (television) programs that introduce and share benefits of high occupancy vehicle modes for commuters and TDM Programs for area employers.
9. Utilize special days (Air Quality Action Days and Bike To Work Day) to coordinate events that call attention to the need and importance of commute alternatives.
10. Revamp and distribute newsletter targeted for Vanpool Owner/Operators that highlights van pool best practices and information on safety, marketing and successful vanpooling techniques.
11. Re-vamp and distribute quarterly newsletter for Southern Maryland Commuters (distributed through the areas commuter buses) that highlights areas of interest to the Southern Maryland commuter bus passengers on the MTA sponsored routes.
12. Revitalize partnership with Clean Air Partners, who works with Southern Maryland regional public and private schools to highlight the benefits of clean air through high occupancy vehicle modes and biking.
13. Provide start-up assistance and monitoring of Subscription bus services, with a particular focus on supporting BRAC initiatives.
14. Seek to re-engage commuters who have allowed their records to expire through the use of traditional and email campaigns.
15. Participate on the Southern Maryland Regional Transportation Coordination Committee.

VIRGINIA RAILWAY EXPRESS

www.VRE.org

Marketing Budget: \$350,000

Profile:

- Commuter rail system running on railroad tracks hosted by CSX, Norfolk Southern and Amtrak.
- Two system lines carrying long-distance commuters into Alexandria, Arlington and Washington, DC.
- Top AM destinations are L'Enfant Plaza, Crystal City, and Union Station.
- Average daily ridership is 19,000, removing those commuters from I-95, I-395, and I-66.
- Capital improvement projects increase system efficiency and capacity, and include a Broad Run Yard Expansion, Crystal City station improvements, multi-station platform lengthening.
- New storage tracks at L'Enfant will allow for additional cars on select train sets.

WABA - Washington Area Bicyclist Association

www.waba.org

WABA has been serving the needs of bicycling community since 1972. The mission of the Washington Area Bicyclist Association is to create a healthy, more livable region by promoting bicycling for fun, fitness, and affordable transportation; advocating for better bicycling conditions and transportation choices for a healthier environment, and educating children, adults, and motorists about safe bicycling.

WABA's goal is to have a fully integrated transportation system, one that links transit, trails, bicycling, and walking facilities to connect the places to live, work, and play where one can ride anywhere safely.

Five-Year Strategic Goals (2015-2020)

By 2020, the percentage of people who use bikes will triple throughout the region.

By 2035, all residents in the Washington metropolitan region will be within one mile of dedicated space for biking and a connection to the broader regional bicycling network.

Six Strategic Focus Areas

Improve our bike network to enhance mobility, connectivity, and ease

- Prioritize transportation master plans in all WABA jurisdictions that incorporate low-stress networks to encourage bicycling for all.
- Increase funding allocated to bicycling in local and state transportation budgets.
- Ensure government agencies are accountable to bicycling plans and goals.
- Support sensible land use and zoning policies to grow bicycling.
- Pursue integration of bicycling in public transportation.

Advocate for increased bike education efforts across the region and expand WABA's role from service provider to program developer

- Expand, improve, and better promote our existing adult education opportunities.
- Create and support programs that serve the unique bike education needs of each WABA jurisdiction, constituent community, and/or partner group.
- Prioritize universal in-school "learn to ride" education in regional schools.
- Create and maintain robust out-of-school opportunities for youth and family biking.
- Encourage instructors to pursue continuing education, become more involved in the WABA community.

Commit to practices and programs that ensure equity, diversity, and inclusion throughout our work

- Ensure institutional equity through internal practices to continue building a culture of inclusion, diversity, encouragement, and support.
- Integrate and prioritize equity, inclusion, and diversity practices across WABA's existing programs.
- Advance WABA's capacity to create targeted programming that inspires more people to bike, teach, advocate, and lead in the region's bike movement.

Attain effective laws and enforcement to protect people who bike

- Advocate for regionally consistent legislation and laws to support and protect bicyclists.

- Advocate for a regional commitment to Vision Zero to prevent death and serious injuries for all roadway users.
- Build proactive and educational relationships with law enforcement agencies and other key parts of the civil and criminal justice system.
- Encourage law enforcement agencies across the region to better allocate enforcement resources to deter roadway behaviors most likely to lead to death or significant injury.
- Strengthen advocacy for crash victims.

Empower Local Advocates

- Develop a plan that identifies opportunities to involve, support, and further engage local advocates at every level.
- Engage and inspire civic and community leaders.
- Grow effective and successful local action committees 4. Use state-of-the-practice advocacy tools to empower supporters of all levels of engagement.

TDM Calendar of Events for 2018-2019

September 2018	50 States and 13 Colonies Ride Car Free Day PARK(ing) Day Try Transit Week Walkingtown DC
October 2018	Commuter Connections Fall Campaign Launch Walk & Bike to School Day Walk & Ride Challenge
Feb 2019	Commuter Connections Spring Campaign Launch
April 2019	Clean Air Partners Campaign Launch Earth Day Events Street Smart Pedestrian and Bicycle Safety Media Campaign
May 2019	Bike to Work Day DC Bike Ride
June 2019	Commuter Connections Employer Recognition Awards Bike to Work Day Employer Challenge Luncheon Dump the Pump Day End of COG fiscal year

**CURRENT PROFILE OF REGIONAL
ACTIVITY CENTER CLUSTERS**

Inner Core	District of Columbia	Arlington County	City of Alexandria
Top Regional Activity Centers	<ul style="list-style-type: none"> • Brookland • Capitol Hill • Capitol Riverfront • Downtown DC • Dupont Circle • Farragut Square • Georgetown • H St • McMillan/Old Soldiers Home • Monumental Core • NoMa • Rhode Island Ave • Southwest Waterfront • U/14th Corridor • Westend 	<ul style="list-style-type: none"> • Ballston • Clarendon • Court House • Crystal City • Pentagon • Pentagon City • Rosslyn • Virginia Square 	<ul style="list-style-type: none"> • Beauregard • Braddock Road Metro Area • Carlyle/Eisenhower East • King Street/Old Town • Landmark/Van Dorn • Potomac Yard
Other Areas of Interest		<ul style="list-style-type: none"> • Columbia Pike Town Center • Columbia Pike Village Center 	
Impacted Corridors	<ul style="list-style-type: none"> • I-395/I-295 • I-66 (Roosevelt Bridge) • Rt. 50 (New York Ave) • Rt 1 (Rhode Island Ave & 14th St) • Woodrow Wilson Bridge • All Major Arterials 	<ul style="list-style-type: none"> • I-66 • U.S. Rt. 1 • I-395 • Rt. 29 • Rt. 50 • Columbia Pike 	<ul style="list-style-type: none"> • Rt. 1 • George Wash Pkwy • I-95/I-395/I-495 • Duke Street • King Street • Telegraph Rd. • Woodrow Wilson Bridge

Inner Core	District of Columbia	Arlington County	City of Alexandria
<p>Available Products</p>	<ul style="list-style-type: none"> • Carpools • Car Sharing <ul style="list-style-type: none"> - Zipcar - Car2go - Enterprise CarShare • Commuter Rail- <ul style="list-style-type: none"> - VRE - MARC • Cycling <ul style="list-style-type: none"> - Capital Bikeshare - Bikestation at Unionstation - Bike racks on sidewalks - Bike racks on buses - Bike on rail - Bike lanes & trails - ADA bike ramps • Telework • Flextime Rewards • HOV lanes • Rental cars • Transit • Local and express buses • Metrobus • Metrorail • Vanpools • Taxicabs • Union Station – Region’s premier intermodal transportation center • Walking <ul style="list-style-type: none"> - Wide, tree-lined sidewalks - Count-down pedestrian signals being installed 	<ul style="list-style-type: none"> • Commuter Stores <ul style="list-style-type: none"> - Ballston - Crystal City - Rosslyn - Shirlington - Pentagon - Mobile Commuter Stores • Metrobus • Arlington Transportation Partners employer, residential, developer, and hotelier services • ART- Arlington Transit • Capital Bikeshare • Scooters/dockless bikeshare • Bike/Walk Paths • Bike Racks/Lockers • CommuterDirect.com • CommuterPage.com • CarFreeDiet.com • Carpools • CarpoolNow • Carshare – Zipcar, car2go • HOV lanes • Metrorail • Slug lines • Vanpools • VRE • ‘Pool Rewards • Mobile Apps • Advertising in local retail and business directories • Transportation fairs • Arlington cable TV • Metrobus collateral • ART promotion • ATP collateral • Direct Mail Program 	<ul style="list-style-type: none"> • GOAlex program • Web site: www.alexandriava.gov/GoAlex • Alexandria Transit Store • AMTRAK • Bike Paths • Bike Racks/Lockers • Capital Bikeshare • Carpools/Vanpools • CarpoolNow • DASH • Fairfax Connector • HOV lanes • Literature displays at community facilities • Metrobus/Metrorail • Telework assistance • VRE • Walking paths • Carshare Alexandria! • Literature Display campaign • RSS feed • eNews • Quarterly newsletter • Trip planning • Free King Street Trolley • Facebook page • Alexandria Gazette and Alexandria Times newspaper ads • GOAlex collateral materials • Bus interior ads • Chamber of Commerce networking • Community outreach at local events • <i>GOAlex and eNews</i> newsletters

Inner Core	District of Columbia	Arlington County	City of Alexandria
	<ul style="list-style-type: none"> - ADA-Bike Ramps • ‘Pool Rewards • Employer Email Blasts Promoting goDCgo Services • Employer mailings by goDCgo • Employer seminars by goDCgo • BikeBrand Your Biz, promoting bicycle friendly businesses • WMATA Cooperative Marketing for Special Events • Car Free Day • Bike to Work Day support • goDCgo.com • Marketing collateral disseminated through direct mail & events • Social Media • Monthly Newsletter 	<ul style="list-style-type: none"> • Email alerts • E-newsletters • Blogs and websites • Videos • Newspaper ads • On –Board bus interiors • Quarterly newsletter and packages for employers • Retail kiosks and point-of-purchase displays • Sponsorship of local community events • Subway tunnel 2-sheets advertising • Postings on Facebook, YouTube, Instagram and Twitter • Car Free Day • Bike to Work Day • Facebook, YouTube & Google ads • Street Team events • Transit Screens 	<ul style="list-style-type: none"> • Local government access cable channel • Transportation fairs • Literature Display campaign • Grass Roots Marketing Campaign • Facebook Ads and post boosting

RECOMMENDED MARKETING STRATEGIES PER TOP REGIONAL ACTIVITY CENTERS/CLUSTERS	
Top Regional Activity Center Clusters	<p>Washington, DC</p> <ul style="list-style-type: none"> • Brookland, McMillan/Old Soldiers Home, Rhode Island Ave • Capitol Hill, Downtown DC, Dupont Circle, Farragut Square, H St, Monumental Core, NoMa, U/14th Corridor, Westend • Capitol Riverfront, Southwest Waterfront • Georgetown
Products	<ul style="list-style-type: none"> ➤ Bicycling ➤ Capital Bikeshare ➤ Carpools ➤ Mass Transit: bus, commuter rail, Metrorail, commuter bus ➤ DC Circulator ➤ www.goDCgo.Com ➤ goDCgo Employer Services ➤ SmartBenefits ➤ Vanpools ➤ 'Pool Rewards
Target Audiences	<ul style="list-style-type: none"> • Building Owners/Managers • Chamber/Trade Organizations • Private Sector Employers with 100+ employees • Residents in high SOV zip codes • Tourists/Visitors
Objective	<ul style="list-style-type: none"> • Generate interest by employers for the productivity gains from adopting various transportation benefits in their organization • Generate interest in the wide variety of transportation options in the District and encourage greater use
Recommended Marketing Strategy	<ul style="list-style-type: none"> ➤ Support WABA with Bike To Work Day event ➤ Advertising programs will focus on www.goDCgo.com, Capital Bikeshare, and other sharing (carsharing, sharing the road). ➤ Regular marketing to employers in the District through eblasts and direct mail. ➤ Monthly e-newsletter to employers and general public ➤ Direct work with partner organizations to market program. ➤ Public relations effort and promotions to improve awareness of commuting alternatives and the safety net of GRH and success stories achieved by enrolled users <ul style="list-style-type: none"> ➤ Rotate radio ads for fall and spring campaign that focus on the overall services of Commuter Connections as well as the specific services including ridesharing, GRH and Transit ➤ Web Banners on several sites ➤ 'Pool Rewards outreach to employers and residents ➤ CarpoolNow ➤ Flextime Rewards

	<p>Commuter Connections Mass Marketing TERM</p> <ul style="list-style-type: none"> ➤ Directory listings in print and online phonebooks ➤ Quarterly newsletter to employers and Federal agencies ➤ Strategic Plan update in Fall ➤ Updating all collateral with changes throughout year ➤ Web site marketing
Language(s)	English and Spanish
Partners	BIDs COG DDOT MARC VRE WABA WMATA
Partner Contributions	MARC & VRE donate space for GRH promotional materials
Evaluation	Evaluate call reports for 800-745-RIDE Evaluate Web hits for commuterconnections.org Evaluate Web hits for goDCgo.com

**RECOMMENDED MARKETING STRATEGIES
PER TOP REGIONAL ACTIVITY CENTERS/CLUSTERS**

<p>Top Regional Activity Center Clusters</p>	<p>Alexandria City</p> <ul style="list-style-type: none"> • Beauregard • Braddock Road Metro Area, Carlyle/Eisenhower East, King Street/Old Town, Potomac Yard • Landmark/Van Dorn
<p>Products</p>	<ul style="list-style-type: none"> • Go Alex program • www.alexandriava.gov/GOAlex • Old Town Transit Shop • AMTRAK • Bike Paths • Bike Racks/Lockers • Capital Bikeshare • Carpools/vanpools • CarpoolNow • DASH • Fairfax Connector • HOV lanes • Literature displays at community facilities • Metrobus/Metrorail • VRE • Walking paths • Carshare Alexandria! • GO Alex Ambassadors • Display campaign • RSS feed • eNews • Biannual newsletter • Trip planning
<p>Target Audiences</p>	<p>Work End: Businesses with emphasis on private sector employers with 100+ employees</p> <p>Home End: Residents in high SOV zip codes</p> <p>Other: Visitors</p>
<p>Objective</p>	<ul style="list-style-type: none"> • Work with employers on implementing or expanding a transportation benefits program to decrease the number of SOV commuters to worksite.
<p>Recommended Marketing Strategy</p>	<ul style="list-style-type: none"> ➢ Bike to Work Day event ➢ Advertising programs will focus on multiple modes including telework, transit, walking/bicycling, vanpooling and carpooling and the time-saving benefits of HOV

	<ul style="list-style-type: none"> ➤ Public relations effort and promotions to increase awareness of transportation options and supplemental programs, such as GRH and Carshare Alexandria! ➤ Collect testimonials from those using alternative transportation and supplemental programs for use in marketing material, web sites, and media campaigns.
Language(s)	English, Spanish
Partners	Association for Commuter Transportation (ACT) COG Commuter Connections DASH Jurisdictional TDM representatives Numerous business and civic representatives NVRC NVTC VDOT VDRPT VRE WABA WMATA
Partner Contributions	
Evaluation	Evaluate call reports for 800-745-RIDE Evaluate web visits for commuterconnections.org Evaluate web visits on Go Alex Web site Survey commuters who register with Commuter Connections Survey residents that enroll in Carshare Alexandria! Annual Survey of TMP sites Brochure tracking Pledge tracking Customer Engagements at events Facebook statistics Rideshare Database matches

RECOMMENDED MARKETING STRATEGIES PER TOP REGIONAL ACTIVITY CENTER/CLUSTER	
Top Regional Activity Center Clusters	<p>Arlington County</p> <ul style="list-style-type: none"> • Ballston, Clarendon, Court House, Rosslyn, Virginia Square • Crystal City, Pentagon, Pentagon City
Other Areas of Interest	<ul style="list-style-type: none"> • Columbia Pike Town Center • Columbia Pike Village Center
Products	<ul style="list-style-type: none"> • ART Bus/Metrobus/Metrorail/VRE • Bicycling and walking • Capital Bikeshare • Scooters and Dockless bikeshare • The Commuter Stores in Ballston, Crystal City, Pentagon, Rosslyn, and Shirlington • Mobile Commuter Stores at Ballston, Courthouse, Pentagon City, N. Veitch St., and Virginia Square • Carshare vehicles – Zipcar & car2go • Slug-lines • Vanpools/Carpools/HOV • ‘Pool Rewards • CarpoolNow • Flextime Rewards
Target Audiences	<p><i>Work End:</i></p> <ul style="list-style-type: none"> • Employers and their employees <p><i>Home End:</i></p> <ul style="list-style-type: none"> • Residents in high SOV zip codes
Objective	<ul style="list-style-type: none"> • Generate interest by employers for providing Commuter Benefits to their employees and generate interest in employers with existing programs to provide more benefits and move up a level. • Inform residents, employees and visitors about transit and TDM options.
Recommended Marketing Strategy	<ul style="list-style-type: none"> ➤ Use ATP’s web site, CommuterDirect.com Corporate Services and Brochure Service to supplement sales force to work with employers ➤ Bike to Work Day event ➤ Walk at Lunch Day event ➤ Advertising programs will focus on multiple modes including telework, using transit, bicycling, walking, carsharing, vanpooling and carpooling and the time-saving benefits of HOV ➤ Public relations effort and promotions to improve awareness of commuting alternatives and the safety net of GRH and success stories achieved by enrolled users ➤ Rotate radio ads for fall and spring campaign that focus on the overall services of Commuter Connections as well as the specific services including ridesharing, GRH and transit ➤ Web banners on several sites

	<ul style="list-style-type: none"> ➤ Social Media Postings ➤ 'Pool Rewards outreach to employers and residents <p>Commuter Connections Mass Marketing TERM</p> <ul style="list-style-type: none"> ➤ Quarterly newsletter to employers and federal agencies ➤ Strategic plan update in fall ➤ Updating all collateral with changes throughout year ➤ Web site marketing
Language(s)	English
Partners	Arlington County Department of Economic Development ART - Arlington Transit Capital Bikeshare COG Local Business Groups including Rosslyn BID, Clarendon Alliance, Ballston BID, Crystal City BID and Columbia Pike Revitalization Organization NVTC, WMATA and all local transit and commuter bus providers Slug-Lines.com VDRPT WABA
Evaluation	Evaluate call reports for 800-745-RIDE Evaluate web hits for commuterconnections.org

Current Profile - Top Regional Activity Centers/Clusters

Northern Virginia

	Fairfax County	Loudoun County	Prince William County
Top Regional Activity Centers	<ul style="list-style-type: none"> • Bailey's Crossroads/Western Gateway • Beltway South • Columbia Pike Town Center • Columbia Pike Village Center • Dulles East • Dulles South • Fairfax Center • Fairfax City • Fairfax Innovation Center • Falls Church City • Fort Belvoir • Fort Belvoir North Area • GMU • Herndon • Merrifield Dunn Loring • Reston Town Center • Seven Corners • Springfield • Tysons Central 123 • Tysons Central 7 • Tysons East • Tysons West • Wiehle-Reston East 	<ul style="list-style-type: none"> • Ashburn • Ashburn Station • Dulles Town Center • Loudoun Gateway Station • One Loudoun • RT 28 Central • RT 28 North • RT 28 South • Leesburg 	<ul style="list-style-type: none"> • City of Manassas • City of Manassas Regional Airport • Innovation • Manassas Park • Potomac Town Center/Potomac Mills • Yorkshire
Other Important Areas	<ul style="list-style-type: none"> • Annandale • Burke • Centreville • Chantilly • Dulles/Route 28 • Fair Oaks • Greensboro Station Area • Lorton • McLean 		<ul style="list-style-type: none"> • Gainesville • Haymarket • Manassas Mall • Local Hospitals • Quantico Marine Corps Base • Route 1 Corridor • Old Town Manassas

	Fairfax County	Loudoun County	Prince William County
	<ul style="list-style-type: none"> • McLean Station Area • Mount Vernon • Springhill Station Area • Vienna 		
Impacted Corridors	<ul style="list-style-type: none"> • Braddock Road • Columbia Pike • Dulles Toll Road • Fairfax County Parkway • I-66 • I-66 Express Lanes • I-395 • I-495 • 495 Express Lanes • I-95 (HOV) • 95 Express Lanes • Rt. 1/Richmond Highway • Rt. 123 • Rt. 236/Little River Turnpike • Rt. 28 • Rt. 29/Lee Rt. 50 • Rt. 7/Leesburg Pike Highway 	<ul style="list-style-type: none"> • Rt. 7 • Rt. 9 • Rt. 15 • Rt. 28 • Rt. 50 • Dulles Greenway 	<ul style="list-style-type: none"> • Rt. 234 • Rt. 294 • Rt. 1 • I-95 • I-66 • Rt. 28 • Rt. 29 • Rt. 15
Available Products	<ul style="list-style-type: none"> • Bike Fairfax Program • Capital Bikeshare • Carpools • CarpoolNow • Casual Carpools (slugs) • Fairfax City CUE Bus • Fairfax Connector • Metrobus • REX bus • TAGS bus • Metrorail • VRE • ShuttlePools • GIS density plots 	<ul style="list-style-type: none"> • Carpool • CarpoolNow • Carpool Video • Cycling – W&OD Trail to Route 7 • Employer Services • Flextime • Flextime Rewards • Grant Program • GRH • Loudoun County Transit • Park & Ride Lots • TMA Services-DATA • Vanpool with VANSAVE and VANSTART 	<ul style="list-style-type: none"> • Carpool • CarpoolNow • Casual carpooling – “Slugs” • Cycling to Park & Ride; PW Parkway Trail • OmniRide Employer Services • GRH • HOV lanes • SmartBenefits • OmniRide Express • OmniRide Metro Express, OmniRide Local, OmniRide

	Fairfax County	Loudoun County	Prince William County
	<ul style="list-style-type: none"> • SmartBenefits Plus50 Program • Commuter Friendly Communities Program • Best Workplaces for Commuters Program • DATA E³Calc • 'Pool Rewards • Flextime Rewards • Park and Rides • Bike and Ride • Kiss and Rides • Bike & Pedestrian trails • Casual carpooling (slug lines) • Ridematching • Reserved parking for car & vanpools • Telework/Co-working Centers • TMA partners (DATA, LINK, TAGS, TYTRAN) • Six Connector Transit Stores • Free Student Bus Pass • Telework!VA Tax Credit • Regional GRH • Vanpools • Vanpool Property Tax Relief 	<ul style="list-style-type: none"> • Silver Line Metroconnection • Sustainable Business Certification Program • Vanpool Video • How to Ride Loudoun County Transit Video • SilverLine Buses Video • Carpool Video 	<ul style="list-style-type: none"> • Cross County Connector • OmniRide's Ridesharing Service • Park & Ride • 'Pool Rewards • Flextime Rewards • Vanpool Property Tax Relief • Vanpool • Vanpool Alliance • VanSave/VanStart • VRE • On-The-Go travel training program
Current Marketing Conducted Locally	<ul style="list-style-type: none"> • Distribution of suite of program brochures • Subscription TDM alerts/ announcements • Bus interior and exteriors • Cable TV ads • Radio ads • Movie theater ads 	<ul style="list-style-type: none"> • Datalerts • Direct mail to residents • Membership meetings • Email alerts to bus passengers • Print ads in Local Newspapers • News releases • Transportation fairs • Web site 	<ul style="list-style-type: none"> • Community papers • Hispanic church bulletins • Hispanic newspaper • Direct mail • Employer outreach • Highway signage • Newsletter (OmniNews) • News media – print and online

	Fairfax County	Loudoun County	Prince William County
	<ul style="list-style-type: none"> • Videos online & on county cable • Social media advertising • Digital advertising (i.e. Google partner/pay per click) • Text/email alerts • Vanpool formation presentations • E-mail newsletter • Local community fairs & events • Special promotions for Try Transit Week, Car Free Day, Dump the Pump, Bike to Work Day, etc. • Social media posts/tweets • Website pages • HOV model display • Membership meetings • News releases/Media pitches • Print ads in local newspapers • Direct mail to households near park & rides, bus routes • Posters and Tri-fold Tabletop posters • Distribution of bus schedules • Presentations to business groups • Best Workplaces for Commuters ceremony in front of County Board of Supervisors • Transportation fairs • Employer events • Open houses / town meetings/public mtgs 	<ul style="list-style-type: none"> • Quarterly newsletter for employers • Various displays at employer sites, government facilities, and private business and retail establishments • Earth Day activities • Car Free Day • Special holiday schedules for commuter buses during winter holidays • Sustainable Business Certification presentations • DATA Employer Council • DATA bilingual ridesharing coordinator scheduled in business • Web advertisements targeted to Loudoun residents 	<ul style="list-style-type: none"> • Poster in employer sites • Press release • New Rider kits to new homeowners • Messages on phone hold service • Articles/ in jurisdictional and HOA newsletters • Hispanic radio ads • Online ads on hyper local websites • Yellow pages print and online • On-board Notices • Special promos: Bike to Work Day; Dump the Pump Day; various transit fairs; community outreach events; Senior community presentations; Youth outreach programs targeted to children ages 4-19; PWC new teacher orientation day; Transition fairs for parents of disabled children • Web site • Rider Express eAlert system • Facebook

	Fairfax County	Loudoun County	Prince William County
	<ul style="list-style-type: none"> • Ads in Fort Belvoir directory • DATA Live More Commute LessSM website & publications • DATA employer Council and EC Blog 		

**RECOMMENDED MARKETING STRATEGIES
FOR TOP REGIONAL ACTIVITY CENTERS/CLUSTERS**

<p>Top Regional Activity Centers Clusters</p>	<p>Fairfax County</p> <ul style="list-style-type: none"> • Bailey's Crossroads/Western Gateway, Columbia Pike Town Center, Columbia Pike Village Center • Beltway South • City of Falls Church, Seven Corners • Dulles East • Dulles South • Fairfax Center • Fairfax City, GMU • Fairfax Innovation Center, Herndon, Reston Town Center, Wiehle-Reston East • Fort Belvoir • Fort Belvoir North Area • Merrifield Dunn Loring • Springfield • Tysons Central 123, Tysons Central 7, Tysons East, Tysons West
<p>Products</p>	<p>Carpools and vanpools Best Workplaces for Commuters Bicycling, Bike Fairfax, Capital Bikeshare CarpoolNow DATA and Fairfax County services Flextime Rewards Guaranteed Ride Home HOV Lanes 'Pool Rewards ShuttlePools SmartBenefits Plus50 Teleworking Telework!VA tax credit Transit - VRE, Metrobus, Fairfax Connector, Metrorail, Medical Center Shuttle to Metrorail Station</p>
<p>Target Audiences</p>	<p><i>Work End:</i> Chamber/trade organizations Dulles International Airport New businesses located in the region Private sector employees with 100+ employees University Center Westfield's International Center</p> <p><i>Home End:</i> Residents in high SOV zip codes</p>

Objectives	<ul style="list-style-type: none"> • Generate interest from employers for benefits of offering TDM strategies to employees • Entice SOV residents/employees to try alternative modes • Generate interest by employers for the productivity gains from adopting Commuter Connections' "benefit package" including GRH, SmartBenefits, and teleworking. • Generate interest in surveying and subsidies to save on parking costs and assist employees with solution to traffic congestion • Increase awareness of benefits of HOV lanes
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Recommended Marketing Strategy	<ul style="list-style-type: none"> ➤ Leverage partner organizations/cross-marketing opportunities ➤ GRH and 'Pool Rewards targeted employer promotion ➤ SmartBenefits Plus50 Incentive Program ➤ Multi-pronged, scalable in-and out-of-home advertising campaigns: <ul style="list-style-type: none"> ○ Movie theater and digital extension ads ○ Geo-targeted social media ads, posts and engagement ○ Traditional media advertising including print, radio (on-air), TV ○ Digital advertising including Google, pay-per-click ○ Outdoor advertising including bus ads, bus shelter ads, digital displays, etc. ○ Other platforms as they become available ➤ Recognition by Fairfax County Board of Supervisors to employers who qualify for Best Workplaces for Commuters ➤ Bike to Work Day events ➤ Promotions for Try Transit Week, Car Free Day, Dump the Pump Day, Earth Day ➤ Participation in community and business fairs and events <p>Operations Center:</p> <ul style="list-style-type: none"> ➤ Quarterly newsletter to employers and federal agencies ➤ Strategic plan update in fall ➤ Updating all collateral with changes throughout year ➤ Web site marketing
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Language(s)	English, Spanish
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Partners	<p>American Legion Best Workplaces for Commuters (NCTR) COG DATA ENTERPRISE VANS FABB Fairfax County Commuter Services Fairfax CUE</p>
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	<p>Fairfax County Employer Services Health fair schedulers/coordinators LINK MEGA PROJECTS MWAA/Dulles Rail Partners NVTC TAGS Tysons Partnership Springfield Mall VDOT VDRPT VRE VRide WABA WMATA</p>
Partner Contributions	<p>Commuter Benefit Programs Vanpooling Efforts GRH service Local Transit Services Match Program Incentive Programs Promotional Materials Ridematching Services</p>
Evaluation	<p>Evaluate call reports for 800-745-RIDE Evaluate web hits for commuterconnections.org Evaluate web hits for www.fairfaxcounty.gov/transportation Evaluate ridership figures from providers</p>

**RECOMMENDED MARKETING STRATEGIES
FOR TOP REGIONAL ACTIVITY CENTER/CLUSTERS**

Top Regional Activity Center Clusters	<p>Loudoun County</p> <ul style="list-style-type: none"> • Ashburn, Ashburn Station, Dulles Town Center, Loudoun Gateway Station, One Loudoun, RT 28 Central, RT 28 North, RT 28 South, • Leesburg
Products	<ul style="list-style-type: none"> • Carpool • DATA • Loudoun County Transit • Teleworking • CarpoolNow • Flextime Rewards • Vanpool • Sustainable Business Certification • 'Pool Rewards
	<p><i>Home End:</i> Residences in high SOV zip codes</p>
Objective	<p>Increase awareness of benefits of GRH, time savings from HOV lanes and convenience of transit</p>
Recommended Marketing Strategy	<ul style="list-style-type: none"> ➤ Bike To Work Day event ➤ Direct mail programs in fall and spring will focus on Commuter Connections overall services with an emphasis on ridesharing with the support GRH ➤ Public relations effort and promotions to improve awareness of commuting alternatives and the safety net of GRH and success stories achieved by enrolled users ➤ Rotate radio ads for fall and spring campaign that focus on the overall services of Commuter Connections as well as the specific services including ridesharing, GRH and Transit ➤ Web Banners on several sites <p>Operations Center</p> <ul style="list-style-type: none"> ➤ Directory listings in print and online phonebooks ➤ Quarterly newsletter to employers and Federal agencies ➤ Strategic Plan update in Fall ➤ Updating all collateral with changes throughout year ➤ Web site marketing
Language(s)	<p>English</p>
Partners	<p>COG DATA Enterprise Rideshare Fairfax Connector Loudoun County Commuter Services Loudoun County Transit VDRPT</p>

Partner Contributions	GRH promotional materials on board Loudoun County buses
Evaluation	Evaluate monthly call reports for 800-745-RIDE Evaluate Web hits on commuterconnections.org

RECOMMENDED MARKETING STRATEGIES FOR TOP REGIONAL ACTIVITY CENTER/CLUSTERS	
Top Regional Activity Center Clusters	<p>Prince William County</p> <ul style="list-style-type: none"> • City of Manassas, City of Manassas Regional Airport, Innovation, Manassas Park, Yorkshire • Potomac Town Center/Potomac Mills
Products	<ul style="list-style-type: none"> • Casual Carpools (Slugs) • GRH • HOV I-95 and I-66 • NuRide • OmniLink / Cross County Connector local bus service • OmniRide / Metro Direct commuter bus service • Park & Ride lots • 'Pool Rewards • CarpoolNow • Flextime Rewards • Rider Express e-mail service • Ridesharing, vanpools, carpools: PRTC OmniMatch
Target Audiences	<p><i>Home End:</i></p> <ul style="list-style-type: none"> • Residents in high SOV zip codes <p><i>Work End:</i></p> <ul style="list-style-type: none"> • Employers of 100 or more employees
Objective	Increase brand recognition, awareness of ridesharing, benefits of GRH, time savings of I-495 Express lanes and I-95 HOV
Recommended Marketing Strategy	<ul style="list-style-type: none"> ➤ Bike To Work Day event ➤ Direct mail programs in fall and spring will focus on Commuter Connections overall services with an emphasis on ridesharing with the support GRH. Program will target specific zip codes. ➤ Public relations effort and promotions to improve awareness of commuting alternatives and the safety net of GRH and success stories achieved by enrolled users ➤ Rotate radio ads for fall and spring campaign that focus on the overall services of Commuter Connections as well as the specific services including ridesharing, GRH and Transit ➤ Web banners on several sites ➤ Outreach to Hispanic community ➤ Interaction through social media -- Facebook ➤ 'Pool Rewards outreach to employers ➤ CarpoolNow ➤ Flextime Rewards <p>Operations Center</p> <ul style="list-style-type: none"> ➤ Directory listings in print and online phonebooks ➤ Quarterly newsletter to employers and federal agencies ➤ Strategic Plan update in fall ➤ Updating all collateral with changes throughout year

	➤ Web site marketing
Language(s)	English and Spanish
Partners	COG NVTC OmniLink OmniRide PRTC VDRPT VPSI VRE
Partner Contributions	Free rides on OmniRide and OmniLink Free rides on VRE
Evaluation	Evaluate call reports for 800-745-RIDE Evaluate Web hits on commuterconnections.org Evaluate applications received for ridesharing information through Commuter Connections and PRTC OmniMatch programs. Evaluate activity of Customer Service call center. Area residents participate in the State of Commuter survey. Annual surveys on OmniRide and OmniLink buses and VRE trains.

**CURRENT PROFILE OF IMPACTED ACTIVITY CENTERS/CORRIDORS
MARYLAND**

Suburban Maryland	Charles County	Frederick County	Montgomery County	Prince George's County
Top Regional Activity Centers	<ul style="list-style-type: none"> • Waldorf 	<ul style="list-style-type: none"> • Downtown Frederick • East Frederick Rising • Fort Detrick • Francis Scott Key Mall (Rt 85 & Rt 355 Corridor) • Golden Mile • Jefferson Tech Park 	<ul style="list-style-type: none"> • Bethesda • Clarksburg • Friendship Heights • Gaithersburg-Central • Gaithersburg-Kentlands • Gaithersburg-Metropolitan Grove • Germantown • Grosvenor • King Farm/Rockville Research Center • Life Sciences Center/Gaithersburg-Crown • NIH/Walter Reed National Military Medical Center • Rock Spring • Rockville-Montgomery College • Rockville-South/Twinbrook • Rockville-Town Center • Silver Spring • Takoma Park • White Flint • White Oak/FDA 	<ul style="list-style-type: none"> • Branch Ave • Naylor/Southern Metros • Suitland Metro • Landover Mall • Landover Metro • Largo Town Center/Morgan Blvd • New Carrollton • College Park • Langley Park • Port Towns • Prince George's Plaza • West Hyattsville Metro
Other Important Areas		<ul style="list-style-type: none"> • MD Rt 26 	<ul style="list-style-type: none"> • Wheaton • Route 29 Corridor 	<ul style="list-style-type: none"> • Andrew's Airforce Base • Bowie Town Center • Downtown Hyattsville • Greenbelt Metro • Howard B. Owens Science Center • Konterra • NASA/Goddard

Suburban Maryland	Charles County	Frederick County	Montgomery County	Prince George's County
				<ul style="list-style-type: none"> • National Harbor • Prince George's Community College • Prince George's County Sports and Leaning Complex • Upper Marlboro • Watkins Regional Park • White Oak • Woodmore Towne Center
Impacted Corridors	<ul style="list-style-type: none"> • US 301 • MD 228 • MD 5 	<ul style="list-style-type: none"> • I-270 • I-70 • U.S. 15 • U.S. 340 	<ul style="list-style-type: none"> • I-270 • I-495 • US-29 • MD 117 • MD 118 • MD 124 • MD 185 • MD 193 • MD 355 • MD 410 • MD 650 • MD 97 • MD 200 	<ul style="list-style-type: none"> • I-495 • I-95 • MD 5 • U.S. 50 • U.S. 301 • BW Parkway • US Route 1 • MD Route 210 • MD 458 • MD 202 • MD 4 • MD 450 • MD 193 • MD 214
Available Products	<ul style="list-style-type: none"> • MTA Commuter Buses • Guaranteed Ride Home (GRH) Program • Vanpools 	<ul style="list-style-type: none"> • TransIT Connector Services • TransIT-plus Paratransit Services 	<ul style="list-style-type: none"> • Five Transportation Management Districts (TMDs): Silver Spring, N. Bethesda, Bethesda, Friendship Heights, Greater 	<ul style="list-style-type: none"> • Bike Trails and paths • Carpools • Capital Bikeshare • Vanpools

Suburban Maryland	Charles County	Frederick County	Montgomery County	Prince George's County
	<ul style="list-style-type: none"> • Carpools • Teleworking • 'Pool Rewards • CarpoolNow • Flextime Rewards • School Pool • Park and Ride Lots • VanGO 	<ul style="list-style-type: none"> • Medical Assistance Transportation • TAP-Taxi Access Program • TransIT Meet-the-MARC Shuttles (Point of Rocks and Walkersville) • Brunswick MARC line • Park & Ride lots • Personalized ride matching • 'Pool Rewards • CarpoolNow • Flextime Rewards • School Pool • Carpool and Vanpool • Vanpool Incentive Program • Bicycling • Four Frederick County MARC Stations • MTA 505 & 515 Bus to Shady Grove Metro • MTA 204 to College Park • Bay Runner Shuttle • Transportation Fairs & On-Site Ridematching Services • MD Commuter Choice Tax Credit • Trip Planning Services • Guaranteed Ride Home Program • Mobile Ticketing App 	<ul style="list-style-type: none"> Shady Grove (including Life Sciences Center) • Annual employee surveys • Bike Trails • Bike Racks • Capital BikeShare Stations Dockless Bikeshare pilot project in downtown Silver Spring and Takoma Park • MARC stations • Carpool parking and discounts in County-operated facilities in Silver Spring & Bethesda • <i>TRiPS</i> Commuter Store at Silver Spring Metro Station • <i>TRiPS</i> Mobile Commuter Store (various locations around the County daily) • Express Buses • GRH Program • HOV lane on I-270 • Metrorail • Park & Ride Lots • Personalized ride matching, trip planning, & follow-up • 'Pool Rewards • Ride On local bus service • Downtown Circulators in Silver Spring and Bethesda • Free use of professional telework consultants for employers • MD Commuter Tax Credit for Employers • MC Home Telecommuting Tax Credit • Transportation Fairs & Commuter Information Days • Traffic Mitigation Agreements with Developers for New Projects 	<ul style="list-style-type: none"> • Express Buses • GRH • MARC (Camden & Penn Line) • Metrorail, Metrobus • Park and Ride Lots • Personal Ride Match • 'Pool Rewards • CarpoolNow • Flextime Rewards • Telework Centers • <i>TheBus</i>-County Local Bus Service • MTA 640 & 650 Bus to Washington DC • MTA 204 Bus to College Park • Call-A-Bus program

Suburban Maryland	Charles County	Frederick County	Montgomery County	Prince George's County
		<ul style="list-style-type: none"> • Automated Vehicle Location App • Summer Freedom Pass • Voiance phone call translation service • Velocity credit card system 	<ul style="list-style-type: none"> • Traffic Mitigation Plans with Employers in TMDs 	

Suburban Maryland	Charles County	Frederick County	Montgomery County	Prince George's County
Current Marketing Conducted Locally	<ul style="list-style-type: none"> • Web site • Bike to Work Day • Car Free Day • Clean Commute Month • Employer Outreach • Maryland Commuter Tax Alternative • Smart Benefits • Seminars • Local fairs and events • Mail/ email campaigns. • Local radio advertising • Local cable TV ads • Air Quality Action Days and Bike To Work Day • Clean Air Partnership school outreach • BRAC focus 	<p>August - May</p> <ul style="list-style-type: none"> • Local Radio Stations 99.9 & 103.1 morning and afternoon traffic sponsorship <p>September</p> <ul style="list-style-type: none"> • Free TRANSIT rides to support Car Free Day • In the Street Community Fair • Frederick County Fair • Frederick Community College table display <p>October</p> <ul style="list-style-type: none"> • Elder Expo • Frederick County Chamber Expo • Business Appreciation Week <p>November</p> <ul style="list-style-type: none"> • Try TRANSIT Week <p>January</p> <ul style="list-style-type: none"> • State Legislative Reception- Annapolis <p>February</p> <ul style="list-style-type: none"> • Design-An-Ad campaign with middle school students from Frederick 	<p>August</p> <ul style="list-style-type: none"> • County Fair • Ethnic Heritage Event • Customer Appreciation Day at Metro station or transit center • Germantown Community Day <p>September</p> <ul style="list-style-type: none"> • Car Free Day • Outdoor Ad Campaign • Walk & Ride • Bike 2 College Day • Customer Appreciation Day at Metro station or transit center <p>October</p> <ul style="list-style-type: none"> • Annual Commuter Survey (At times may be conducted in Spring vs. Fall) • Ride On Rodeo • Radio Ads on GRH • Customer Appreciation Day at Metro station or transit center <p>April</p> <ul style="list-style-type: none"> • Earth Day/Week/Month <p>May</p> <ul style="list-style-type: none"> • Public Works Week • Bike to Work Day • Bike 2 College Day • GreenFest <p>June</p> <ul style="list-style-type: none"> • Clean Air Partners • Dump the Pump • Customer Appreciation Day at Metro station or transit center <p>Throughout the year:</p> <ul style="list-style-type: none"> • Print/Radio/Website- Ads 	<ul style="list-style-type: none"> • April Earth Day Community Partner's Event • May Bike to Work Day • June-Summer Youth Employee's Orientations • August National Night Out • September County Fair Hispanic Festival Senior Picnic & Fitness Day <p>Throughout the Year</p> <ul style="list-style-type: none"> • Capital Bikeshare promotional events • Website • Smartbenefits • Community Partner Open House • Rider Advisory Committee • Commuter Fairs • The Bus route marketing

Suburban Maryland	Charles County	Frederick County	Montgomery County	Prince George's County
		<p>County Public Schools</p> <p>April</p> <ul style="list-style-type: none"> • Ft. Detrick's Earth Day Celebration • ThermoFisher Scientific Earth Day Celebration • AstraZeneca Earth Day Celebration • Frederick County Commuter Appreciation Event • Frederick Community College Transitioning Fair • Free TRANSIT rides for Earth Day celebration <p>May</p> <ul style="list-style-type: none"> • Bike to Work Day – Bicycle riders ride free <p>June</p> <ul style="list-style-type: none"> • Free TRANSIT rides to support Dump The Pump Day <p>Throughout the year:</p> <ul style="list-style-type: none"> • Television ads on county's public access channel for transit 	<ul style="list-style-type: none"> • Ride On bus interior cards, bus exteriors, bus shelter ads • Chamber ads • Chamber events: Business Expos and networking events; • Street Banners, Posters • Employer worksite events, including Commuter Information Days, benefit fairs, special theme events • Community Outreach Events • Capital Bikeshare promotional events • Social media • Advisory Committee Meetings • Carsharing parking spaces (55) • Social Media Postings 	<ul style="list-style-type: none"> • Employer Outreach Events • E-News letters • Print/ Radio Ads • Movie Theater Commercial s • Comcast RideShare Transit Commercial s • Community Transportati on Fairs • The Bus interior Cards & Bus Shelter ads • Capitol Heights Community Outreach • EDC Employer Outreach events • Housing Expo • Vendors Fair for Seniors • Military Base Transportati on Fairs • County Council Town Hall Meetings

Suburban Maryland	Charles County	Frederick County	Montgomery County	Prince George's County
		<ul style="list-style-type: none"> • Daily online ads on social media and other online platforms for TransIT and Rideshare • Print/Radio Ads • Community Outreach Events • Gas Topper ads promoting GRH, rideshare and vanpooling • Year-long advertisements in Conexiones, Hispanic magazine • Pre-Movie advertising at Westview Cinemas on Rideshare and Vanpooling • Year-long backlit ad panel at FSK Mall • TransIT bus interior cards for Commuter Connections and Clean Air Partners 		<ul style="list-style-type: none"> • County Executive Listening Sessions • Transforming Neighborhood Initiative (TNI) Events

RECOMMENDED MARKETING STRATEGIES FOR TOP REGIONAL ACTIVITY CENTER/CLUSTERS	
Top Regional Activity Center	<p>Charles County</p> <ul style="list-style-type: none"> • Waldorf
Products	<ul style="list-style-type: none"> • MTA Commuter Buses • Guaranteed Ride Home Program • Vanpools • Carpools • Teleworking • 'Pool Rewards • CarpoolNow • Flextime Rewards • School Pool • Park and Ride Lots • VanGO
Target Audiences	<p><i>Work End:</i></p> <ul style="list-style-type: none"> • Employers with 100 or more employees <p><i>Home End:</i></p> <ul style="list-style-type: none"> • Residences along service routes • Residents who have recently moved to area • Residents in high SOV zip codes
Objective	Increase awareness of benefits of GRH, vanpool subsidy, and convenience of transit
Recommended Marketing Strategy	<ul style="list-style-type: none"> ➤ Bike To Work Day event ➤ Direct mail programs in fall and spring will focus on Commuter Connections overall services with an emphasis on ridesharing with the support GRH. Program will target specific zip codes. ➤ Public relations effort and promotions to improve awareness of commuting alternatives and the safety net of GRH and success stories achieved by enrolled users ➤ Rotate radio ads for fall and spring campaign that focus on the overall services of Commuter Connections as well as the specific services including ridesharing, GRH, Telework and Transit ➤ Web Banners on several sites ➤ 'Pool Rewards outreach to residents <p>Operations Center</p> <ul style="list-style-type: none"> ➤ Quarterly newsletter to employers and Federal agencies ➤ Strategic Plan update in Fall ➤ Updating all collateral with changes throughout year ➤ Web site marketing <p>Telework</p> <ul style="list-style-type: none"> ➤ Support via Newsletter
Language(s)	English
Partners	COG, MDOT, MTA

RECOMMENDED MARKETING STRATEGIES FOR TOP REGIONAL ACTIVITY CENTER/CLUSTERS	
Top Regional Activity Center Clusters	<p>Frederick County</p> <ul style="list-style-type: none"> • East Frederick Rising, Fort Detrick, Francis Scott Key Mall, Golden Mile, Jefferson Tech Park, Downtown Frederick
Other Areas of Interest	<ul style="list-style-type: none"> • MD Rt 26
Products	<ul style="list-style-type: none"> • Carpool • Public Transit - TransIT • Telecommuting/Teleworking • Maryland Telework Partnership for Employers (MD) • 'Pool Rewards • CarpoolNow • Flextime Rewards • School Pool • Vanpools • MTA Commuter Buses: #204, #505 & #515 • MARC Train – Brunswick Line
Target Audiences	<p><i>Work End:</i></p> <ul style="list-style-type: none"> • Employers with 100 or more employees <p><i>Home End:</i></p> <ul style="list-style-type: none"> • Residences along service routes for TransIT • Residents who have recently moved to area • Residents in high SOV zip codes
Objective	Increase awareness of benefits of GRH, vanpool subsidy, and convenience of transit
Recommended Marketing Strategy	<ul style="list-style-type: none"> ➤ Bike To Work Day event ➤ Direct mail programs in fall and spring will focus on Commuter Connections overall services with an emphasis on ridesharing with the support GRH. Program will target specific zip codes. ➤ Public relations effort and promotions to improve awareness of commuting alternatives and the safety net of GRH and success stories achieved by enrolled users ➤ Rotate radio ads for fall and spring campaign that focus on the overall services of Commuter Connections as well as the specific services including ridesharing, GRH, Telework and Transit ➤ Web Banners on several sites ➤ 'Pool Rewards outreach to residents ➤ CarpoolNow ➤ Flextime Rewards <p>Operations Center</p> <ul style="list-style-type: none"> ➤ Quarterly newsletter to employers and Federal agencies ➤ Strategic Plan update in Fall ➤ Updating all collateral with changes throughout year ➤ Web site marketing

	Telework ➤ Support via Newsletter
Language(s)	English, some materials in Spanish
Partners	COG Enterprise Rideshare Frederick County MARC & Commuter Bus MTA
Partner Contributions	GRH promotional materials on TransIT
Evaluation	Evaluate call and web reports

**RECOMMENDED MARKETING STRATEGIES
FOR TOP REGIONAL ACTIVITY CENTER/CLUSTERS**

<p>Top Regional Activity Center Clusters</p>	<p>Montgomery County</p> <ul style="list-style-type: none"> • Friendship Heights • Gaithersburg-Central, Gaithersburg-Kentlands, Gaithersburg-Metropolitan Grove, Life Sciences Center/Gaithersburg-Crown • Clarksburg, Germantown • Grosvenor, White Flint • Bethesda, NIH/Walter Reed National Military Medical Center • Rock Spring • King Farm/Rockville Research Center, Rockville - Montgomery College, Rockville-South/Twinbrook, Rockville-Town Center • Silver Spring, Takoma Park • White Oak/FDA
<p>Products</p>	<ul style="list-style-type: none"> • Bicycling • Bikesharing • Carpools/Vanpools • Commuter Services Section • TRiPS Commuter Store in Silver Spring Metro Station and Mobile Commuter Store at various locations around the County daily • HOV lanes • Public Transit - Metrorail, Metrobus, Ride On , MARC rail, VanGo Shuttle, Bethesda Circulator • Silver Spring TMD • Friendship Heights TMD • Greater Shady Grove TMD (GSGTMD) • North Bethesda TMD (NBTMD) operated by TAP under contract to County • Bethesda TMD operated by BUP under contract to County • Maryland Commuter Tax Credit • Smart Benefits Programs • 'Pool Rewards • Telework/telecommuting • FareShare
<p>Target Audiences</p>	<p>Work End:</p> <ul style="list-style-type: none"> • Chamber/Trade Organizations • Private employers with 100+ employees; Private employers with 25+ employees • Real Estate and relocation companies • Office building management/leasing agents • Major retailers • Human Resources departments & associations • Commuters at CIDs and other events. <p>Home End:</p>

	<ul style="list-style-type: none"> Residents in high SOV zip codes proximate to transit throughout the County, especially Silver Spring/Takoma Park, Wheaton, North Bethesda, Shady Grove/Life Sciences Center; I-270 & Rt. 29 Corridors Residents in multi-family residences in NBTMD, GSGTMD and in transit/activity centers.
Objective	<ul style="list-style-type: none"> To improve traffic congestion and air quality in Montgomery County by encouraging employers to adopt high-level commuting benefits and complete a Traffic Mitigation Plan, and by encouraging alternative transportation use among SOV commuters. Generate interest by employers in the productivity gains from adopting County/Commuter Connections' "benefit packages" including GRH, transit subsidies, ridematching, and teleworking. Generate interest in surveying and subsidies to save on parking costs and assist employees with solutions to traffic congestion Increase awareness of benefits of GRH, time savings from HOV lanes and convenience and cost-savings of transit
Recommended Marketing Strategy	<ul style="list-style-type: none"> Bike to Work Day event Bikesharing Promotions Bike 2 College Day Public relations effort and promotions to improve awareness of commuting alternatives and the safety net of GRH, and success stories achieved by enrolled users Rotate radio ads for fall and spring campaign that focus on the overall services of Commuter Connections as well as the specific services including ridesharing, GRH and Transit Ride On bus exterior ads, interior cards and bus shelters Web Banners on several sites Social media postings Print and digital media ads Strategic Plan update in fall Updating all collateral with changes throughout year Web site marketing Radio spot Updated collateral Bi-monthly Better Ways To Work e-newsletter to employers and federal agencies Walk & Ride Car Free Day 'Pool Rewards outreach to employers and residents CarpoolNow Flextime Rewards
Partners	<p>Car sharing companies City of Gaithersburg City of Rockville City of Takoma Park MARC</p>

	MDOT M-NCPPC MTA Ride On Vanpool companies WABA WMATA Chambers of Commerce
Language(s)	English, Spanish, Chinese; other languages to be considered
Partner Contributions	SmartBenefits Promotion of Commuter Connections Ridematching system by outreach teams GRH promotional materials on Ride On & MARC, plus by outreach teams Ride On bus exteriors, interior cards, bus shelters
Evaluation	Evaluate web and call reports

**RECOMMENDED MARKETING STRATEGIES
FOR TOP REGIONAL ACTIVITY CENTER/CLUSTERS**

<p>Top Regional Activity Center Clusters</p>	<p>Prince George’s County</p> <ul style="list-style-type: none"> • Branch Ave, Naylor/Southern Metros, Suitland Metro • Landover Mall, Landover Metro, Largo Town Center/Morgan Blvd, New Carrollton • College Park, Langley Park, Port Towns, Prince George's Plaza, West Hyattsville Metro
<p>Products</p>	<ul style="list-style-type: none"> • Carpools • ‘Pool Rewards • CarpoolNow • Flextime Rewards • Public Transit • Telecommuting/Teleworking • Vanpools
<p>Target Audiences</p>	<p><i>Work End:</i></p> <ul style="list-style-type: none"> • Employers with 100+ employees <p><i>Home End:</i></p> <ul style="list-style-type: none"> • Residents by free shuttle for <i>TheBus</i> • Residents relocating to Impacted Activity Center Areas • Residents in high SOV zip codes
<p>Objective</p>	<p>Increase awareness of GRH and convenience of transit</p>
<p>Recommended Marketing Strategy</p>	<ul style="list-style-type: none"> ➤ Bike To Work Day event ➤ Public relations effort and promotions to improve awareness of commuting alternatives and the safety net of GRH and success stories achieved by enrolled users ➤ Rotate radio ads for fall and spring campaign that focus on the overall services of Commuter Connections as well as the specific services including ridesharing, GRH, Telework and Transit ➤ Web Banners on several sites ➤ ‘Pool Rewards outreach to employers and residents ➤ CarpoolNow ➤ Flextime Rewards <p>Operations Center</p> <ul style="list-style-type: none"> ➤ Ads in phone book ➤ Quarterly newsletter to employers and Federal agencies ➤ Strategic Plan update in Fall ➤ Updating all collateral with changes throughout year ➤ Web site marketing <p>Telework</p> <ul style="list-style-type: none"> ➤ Support via Newsletter
<p>Language(s)</p>	<p>English, with Spanish in Langley Park area</p>
<p>Partners</p>	<p>COG</p>

	Prince George's County Rideshare Division <i>TheBus</i> WMATA
Partner Contributions	GRH write up in schedules for <i>TheBus</i>
Evaluation	Evaluate call and web reports

Available research regarding information on alternative transportation products in the Washington metropolitan region and about behaviors and attitudes towards alternative transportation have been summarized and analyzed in the following section.

In order to design an effective marketing plan, we must first build the profile of our audience -- their commuting preferences based on their perceptions and their environment. Following are highlights from available research conducted from 2012 to 2017.

The summaries and analyses of the following research served to develop and refine the marketing strategy adopted for each impacted activity center and corridor previously described in this document.

RESEARCH SUMMARIES LISTED IN THIS SECTION:

- Central Employment Core Cordon Count of Vehicular and Passenger Volumes 2013 (April 2014)
- Employer Satisfaction Survey July 2014
- Capital Bikeshare Member Survey 2014 Report (April 2015)
- Commuter Research Summary Report Summary (April 2015)
- Performance of HOV Facilities on Freeways in The Washington Region 2014 (October 2015)
- Commuter Connections Retention Rate Survey 2016 Report
- GRH Applicant Survey Report FY16 Washington DC Region (September 2016)
- GRH Survey Report FY16 Baltimore Region (November 2016)
- Bike to Work Survey Report 2016 (May 2017)
- State of the Commute Survey Report 2016 (June 2017)
- Transportation Emission Reduction Measure Analysis Report FY 2015-2017 (November 2017)
- GRH Customer Satisfaction Survey Report Washington DC Region FY17 (March 2018)
- GRH Customer Satisfaction Survey Report Baltimore Region FY17 (March 2018)
- Applicant Database Annual Placement Survey Report FY18 (May 2018)
- Congestion Management Process Technical Report (September 2018)

APRIL 2014

**2013 CENTRAL EMPLOYMENT CORE CORDON COUNT OF VEHICULAR AND PASSENGER VOLUMES
METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS**

PURPOSE OF THE SURVEY

The National Capital Region Transportation Planning Board of the Metropolitan Washington Council of Governments conducts counts of vehicles and persons entering the downtown employment area of Washington, D.C., including the Pentagon, Pentagon City, Crystal City and Rosslyn areas of Arlington County, Virginia. The combined area is the Central Employment Core. The counts were performed yearly each spring from 1974 to 1981, on a two-year cycle from 1981 to 1987, and on a three-year cycle up to 2002 and on a three or four year cycle after 2002. This report documents data collected in spring of 2013, and most comparisons are with data collected in 2009, though some are with 2006 data. Data were collected in the peak direction during the five peak commute hours, from 5 A.M. to 10 A.M. An expanded cordon was developed, and data were collected at both cordon boundaries for this report. No afternoon data collection was performed.

The Central Employment Core Cordon Count quantifies travel on highway and transit facilities serving the region's largest activity center. This is done to measure, by time of day, key commuter-related transportation characteristics such as traffic volumes, auto occupancies, and transit patronage. The data collected and presented in this report may be used to evaluate trends and impacts on major transportation capital improvements such as Metrorail and commuter rail systems, and implementation of transportation management policies, such as the operation of high occupancy vehicle (HOV) lanes. The focus of analysis is on the 6:30 - 9:30 A.M. peak period, since these are the periods of maximum travel demand, however, data collected during the full A.M. five-hour commute period analyzed in some sections of this document.

DEMOGRAPHIC AND TRANSPORTATION SYSTEM CHANGES SINCE THE 2009 REPORT

From 2009 through 2013, total nonfarm employment in the District of Columbia increased from about 677,000, to about 718,000, an increase of approximately 41,000 jobs. Employment in Arlington County, Virginia increased from about 157,000 in 2009 to 165,000 in 2013, an increase of about 7,000 jobs. The percentage of jobs located inside the original cordon line in the District of Columbia is estimated at about 68% of all jobs. For Arlington County, about 52% of the county's jobs are located inside the cordon.

Applying these percentages, jobs in the District inside the cordon line increased from about 461,000 in 2009 to about 488,000 in 2013; and jobs in Arlington inside the cordon line increased from about 82,000 in 2009 to about 86,000 in 2013. Thus, total employment inside the cordon line increased from about 543,000 in 2009 to about 574,000 in 2013, an increase of about 31,000 jobs. Using the revised cordon line, about 74% of D.C. jobs are within the cordon; and in Arlington County, about 88% of employment falls within. In 2013, that means that there were about 536,000 jobs inside the revised cordon in D.C., and about 145,000 jobs inside the revised cordon in Arlington, for a total of about 681,000.

CENTRAL EMPLOYMENT CORE CORDON TRENDS

Person Travel

A.M. Inbound

- Travel to the core has increased by about 17,000 since 2009.
- Inbound travel in 1996, 1999, 2002, 2006 and 2009 remained below their all-time high of about 473,000 trips in 1993.

- Total inbound trips (by all modes) to the Central Employment Core decreased from 463,000 in 2009 to about 446,000 in 2013, a decrease of about 4%.
- The modal share of transit increased slightly from 45% of all trips in 2009 to about 47% of all trips in 2013, with most of the increase due to trips by transit bus.
- Person trips in multiple-occupant vehicles (MOV) decreased by over 17,000 trips, and modal share decreased from about 19% in 2009 to 16% in 2013.
- Person trips by private auto crossing the cordon line in the DC sectors decreased by over 11,000.
- Person trips crossing the cordon line's Virginia sectors in multiple-occupant vehicles decreased by almost 13,000.
- Total inbound person movements decreased from about 588,000 in 2009 to about 571,000 in 2013, with much of the decline due to a decrease in trips by multiple-occupant vehicles.

Modal Shares of Trips Crossing the Potomac River

Counts of travel crossing the Potomac River were not conducted in 2009, so 2013 data are compared with 2006 data instead.

- In the peak-flow direction (Virginia to D.C.), about 140,000 person trips crossed in the 6:30 to 9:30 A.M. peak period. This is an increase of about 10,000 trips from 2006.
- Shifts between modes were small.
- In the reverse-flow direction (D.C. to Virginia), about 50,500 trips crossed in 2013, down from 59,500 trips in 2006.
- In the full five-hour (5:00 to 10:00 A.M.) monitoring period, about 179,000 trips crossed from Virginia to D.C., an increase of about 12,500 from 2006, and most of the increase was on person trips by transit.
- In the reverse-flow direction, travel declined from about 78,000 in 2006 to about 66,000 in 2013; most of the decrease was due to a decline of 10,500 in person trips by automobile.

Modal Shares of Travel to D.C. and Virginia Sectors

Comparisons are between 2006 and 2013; no counts were performed at the bridge crossings in 2009.

- In the D.C. sectors, travel by single-occupant vehicle appears to have decreased from 2006 to 2013 in the three-hour peak period, by about 14,000 trips.
- During the same period, trips by transit increased by about 17,000 trips.
- In the Virginia sectors, person trips were nearly unchanged from 2006 to 2013, but a decrease in travel by private auto appears to have been offset by an increase in transit patronage.
- For the full five-hour monitoring period, trips to the D.C. sectors increased from 498,000 in 2006 to 511,000 in 2013.
- Trips by private auto decreased by about 13,000, and nearly all of the increase appears to be due to an increase in transit patronage of about 27,000.
- In the Virginia sectors, total trips were little changed from 2006 to 2013, but a decrease in trips by private autos was offset by an increase in trips by transit.

Changes in Temporal Distribution of Trips Crossing the Central Employment Core Cordon

- Peaks for inbound A.M. person trips by all modes have generally declined, except for transit modes other than Metrorail, which have increased in aggregate.
- Trips by SOV declined in half-hour intervals after 7:00 A.M.
- Trips by HOV2+ have declined in each half-hour interval after 6:30 A.M.
- The peak for Metrorail has shifted slightly, and ridership has declined in the half-hour intervals before 8:00 A.M., but has increased somewhat between 8:00 A.M. and 10:00 A.M.
- Inbound motor vehicle trips have declined slightly between 7:30 A.M. and 9:30 A.M.

Traffic

A.M. Inbound (6:30 to 9:30)

- In 2009, about 212,000 vehicles (including bicycles) entered the Central Employment Area Core during the 6:30-9:30 A.M. peak period.
- In 2013, about 203,000 vehicles, including about 3,500 bicycles, crossed the cordon line inbound, a decrease of about 9,000.
- At the revised cordon, about 207,000 vehicles were counted.
- There were minor changes in traffic volumes in the D.C. and Virginia sectors.
- About 95%, or about 193,000 of the entering vehicles were automobiles.
- Other categories of vehicles observed were bicycles, trucks, motorcycles, transit buses and other buses (the latter category includes commuter buses and all other buses).

A.M. Inbound (5:00 to 10:00)

- During Spring 2013, about 278,500 vehicles crossed the cordon line inbound, little changed from 2009.
- Auto traffic declined from about 273,000 in 2009 to about 263,000 in 2013.
- At the revised cordon line, about 283,500 vehicles were counted crossing the cordon line.
- Inbound traffic in the D.C. and Virginia sectors did not change significantly.

Automobile Occupancy

- In 2013, the average auto occupancy in the A.M. peak period (6:30 – 9:30 A.M.) was measured at about 1.22, a decline from 2009.
- Person trips in automobiles declined from about 256,000 in 2009 to about 235,000 in 2013, while automobile trips declined from 203,000 in 2009 to 192,500 in 2013.
- Occupancies at the revised cordon line were observed to be about the same.
- In the D.C. sectors, average occupancy declined very slightly from 1.18 in 2009 to 1.17 in 2013.
- In the Virginia sectors, average auto occupancy declined from 1.36 in 2009 to 1.28 in 2013 (average auto occupancy has historically been higher in the Virginia sectors because of the HOV lanes along I-395 and the HOV restriction on I-66 in the peak flow direction).
- Average auto occupancies at the revised cordon line were very close to the occupancies observed at the traditional cordon line.

MAJOR FINDINGS

A comparison of traffic and person counts across the Central Employment Core Cordon from 2013 with 2009 reveals the following:

- In the three-hour A.M. (6:30-9:30) peak period, inbound person movements decreased between 2009 and 2013 by about 17,000 trips. Most of the reduction was due to a decline in person trips by multiple-occupant vehicles. A similar decline in person trips was observed during the five-hour A.M. (5:00-10:00) monitoring period.
- Single-occupant vehicle traffic crossing the cordon line declined slightly, but the decline was not statistically significant and single-occupant vehicles command the largest share of inbound travel by mode.
- Automobile traffic crossing the cordon line declined by about 10,000.
- The modal share of inbound A.M. trips by transit did not change from 2009 to 2013.
- Inbound average auto occupancy declined slightly.

JULY 2014
EMPLOYER SATISFACTION SURVEY REPORT
COMMUTER CONNECTIONS

This report presents results of an employer satisfaction survey of a random sample of employers that participate in the Employer Outreach program administered by the Commuter Connections Program of the National Capital Region Transportation Planning Board (TPB) at the Metropolitan Washington Council of Governments (COG).

The primary purpose of conducting this survey was to collect data to document the attitudes, opinions and satisfaction of employers toward the products and services provided by Commuter Connections and local member organizations that are part of the Commuter Connections employer and commuter assistance network in the Washington, DC metropolitan region. To allow comparison with previous survey, the 2014 questionnaire was based on the 2009 questionnaire.

At the conclusion of the survey administration period, a total of 79 interviews were completed by telephone, 398 surveys were completed by email, postal mail and fax. Overall, the total response rate was 29.3%.

The survey collected data in several primary topic areas. Results for these topics are presented below:

- Company background
- Worksite commute program services offered
- Awareness of and satisfaction with Commuter Connections representative
- Level and form of communication with Commuter Connections
- Use of and value of Commuter Connections employer assistance services
- Use of Commuter Connections employee survey
- Interest in Commuter Connections training opportunities

COMPANY BACKGROUND

- 50% of the survey respondents worked in Montgomery County, MD, 15% worked in the District of Columbia, and 13% said their work location was in Arlington County, VA.
- About 60% of the respondents said their company employed fewer than 100 employees in the Washington region; 36% said the firm employed between one and 25 employees and 29% employed between 26 and 99 employees. About a quarter had between 100 and 250 employees and 17% employed 251 or more employees.
- The overwhelming majority of respondents worked either for a private company (63%) or a non-profit organization or association (30%). Only seven percent worked for a government agency. The very small share of government employers reflects the focus of the Employer Outreach program on non-governmental employers.
- Over half (57%) said they had only one site in the region. Almost a quarter (22%) had between two and four sites. Only 21% had five or more sites.

WORKSITE COMMUTER SERVICES OFFERED

- Almost five in ten (46%) respondents said employees had access to general commute info, 37% said transit schedules were available, and a 20% cited Guaranteed Ride Home. About a fifth named Air Quality Action information (17%) and 12% for ridematching.

- Almost half of the employers (45%) said they currently offered SmartBenefits. Other services that were commonly available now were SmarTrip cards, offered by (31%) employers, and pre-tax accounts, offered by three in ten (30%). About 4% of respondents said carpool and vanpool subsidies were available to their employees now. Six percent said they currently offered bike or walk incentives and two percent said they provided assistance with vanpooling.
- An additional 11% said they might consider offering SmartBenefits service to employees, 14% said they would consider offering SmarTrip cards, 15% would consider allowing employees to set-aside a portion of their salary in a pre-tax transportation account, and 13% would consider providing a carpool/vanpool subsidy. Interest in a bike/walk incentive was relatively the same as with the last survey.
- The most common onsite facility was free parking, available at 55% of the worksites. Bike racks and showers/personal lockers were named by at least four in ten respondents.
- Just over half, (53%) said employees at their worksite were permitted some flexibility in their work start and stop times. More than half said employees at their location were permitted to telework and over a quarter said compressed work schedules were available.
- 81% of respondents' companies had offered commute services three years or longer and 94% offered them for at least two years.
- Sixty-five percent had been involved with Commuter Connections for three years or more and 15% had participated for at least 2 years.

AWARENESS AND SATISFACTION WITH COMMUTER CONNECTIONS' NETWORK REPRESENTATIVE

- More than seven in ten respondents said they had been involved in or responsible for managing or delivering commuter services at their worksite for at least two years. One in ten respondents said they were quite new to this responsibility, with less than one year of experience.
- Only 27% could name their Commuter Connections network representative.
- Almost 50% of the respondents said they had some form of communication with their CC representative in the past year, including telephone, postal mail, email, or personal visit. A surprising number (44%) said they had never had any contact with their representative.
- The large majority (72%) of respondents' said they were satisfied with the level of contact that they had with their Commuter Connections network representative, rating it "about right." About four percent said the number of contacts was either somewhat or much more than they wanted. Only 10% said they wanted a higher level or greater frequency of contact.
- 90% of respondents who had at least one contact per month and 85% of those with at least one contact during the year said they thought the level of contact was "about right." By contrast, 25% of respondents who had not had a contact in the past year said the level of contact was less than they wanted. But the fact that 69% of these respondents said having no contact was "about right" indicates that some respondents did not feel it necessary to hear from or see their representatives.
- Over 80 % of respondents said they would prefer email for communications with/from their Commuter Connections network representative. The remaining employers were divided between postal mail (12%), and phone (5%).
- At least eight in ten respondents rated their representative a 4 or 5 (excellent) on a 1 to 5 point scale for professionalism (87%), willingness to help (87%), timeliness of service delivery (84%), responsiveness to their requests/questions (86%), enthusiasm about commuter Connections and its products and programs (87%), knowledge of Commuter Connections and/or local ridesharing and transit products (85%), and their ability to provide information that is helpful to

the company and employees (85%). Representatives also received high scores for knowledge of local transportation and air quality issues (84% rating of 4 or 5).

USE OF AND SATISFACTION WITH COMMUTER CONNECTIONS SERVICES

- Six in ten respondents said they were satisfied overall with the services they received from Commuter Connections; 37% gave an overall rating of “5” on a 5-point scale (very satisfied) and 21% gave a rating of “4.”
- About three in ten (34%) rated the service a “3.” Only eight percent said they were unsatisfied with Commuter Connections’ services (rating of 1 or 2).
- 35% said they were very likely to recommend the service and 26% said they were somewhat likely to recommend.
- More than half of the employers said Commuter Connections’ services had been either useful (21%) or very useful (37%).
- Six services had been used by at least 60% of the organizations: info brochures (64%), website (64%), personal assistance from a representative (64%), special events, such as Bike to Work events (64%), posters (64%) and, carpool/vanpool match plot maps.
- About one in ten (8%) respondents said their organizations had used a Commuter Connections employee survey in the past year.

INTEREST IN TRAINING OPPORTUNITIES SPONSORED BY COMMUTER CONNECTIONS

- At least a quarter of employers expressed substantial interest (rating of 4 or 5) in training on: general information on commute program management (26%), information on Commuter Connections services that were available to employers and commuters (28%), legislative and tax issues related to travel and commuting (27%), and transit financial incentives (28%). About two in ten respondents said they had moderate interest (rating of 3) on each of these services.
- A second tier of services garnered substantial support from about two in ten respondents. These topics included telework (18%), Air Quality Action days (20%), Carsharing (19%), General Commuter Information (19%), Telework (18%), and Vanpool formation (17%). Another two in ten respondents reported moderate interest in these topics.

APRIL 2015

CAPITAL BIKESHARE 2014 MEMBER SURVEY REPORT

This report presents the results of the November 2014 Capital Bikeshare Customer Use and Satisfaction Survey conducted for the Capital Bikeshare program (Capital Bikeshare), a program jointly owned and sponsored by the District of Columbia, Arlington County, VA, the City of Alexandria, VA, and Montgomery County, MD, and operated by Motivate International, Inc. Capital Bikeshare offers short-term use of more than 2,500 bicycles to registered members and day-pass users at more than 350 stations in the District of Columbia, Arlington County and the City of Alexandria in Virginia, and Montgomery County in Maryland. Users register for an annual or 30-day membership and receive a Capital Bikeshare key that allows them to unlock a bike at any station. Users can return the bike to the same station or to any other station in the network, facilitating both return and one-way trips. Capital Bikeshare's management was interested in examining users' experience with the program and bikeshare's impact on users' travel patterns. The survey was conducted for the following primary purposes; to explore:

- Demographic characteristics of Capital Bikeshare users
- Characteristics of Capital Bikeshare trips
- Travel changes made in response to Capital Bikeshare availability
- Users' satisfaction with Capital Bikeshare features

On October 23, 2014, Capital Bikeshare staff sent an email to all of the approximately 27,600 annual/30-day members, informing them of the online survey and providing the link to the survey website. The email indicated that Capital Bikeshare would enter members who completed the survey entry into a drawing for one of five annual memberships. To increase the response rate further, Capital Bikeshare sent a reminder in the monthly e-newsletter that is distributed to all members. During the approximately four-week period that the survey website was active, 4,314 members completed the survey, for a total response rate of 16%.

Key Conclusions

Several overall conclusions, generally related to the personal travel benefits and travel impacts of bikesharing rise to the top of importance.

- **Capital Bikeshare (CB) members benefit through easier, faster access to destinations and access to a wider Range of destinations** – Half of the respondents had made a trip in the past month that they would not have made without bikeshare. Of these respondents, 65% said they would not have made the trip because it was too far to walk, so bikeshare broadened their travel destination options. Other respondents reported reasons related to the difficulty of travel or disadvantages of driving to a particular destination or at a particular time of day. For these members, bikeshare expands their easy and convenient travel options.
- **The “transit access” role that bikeshare offers expands travel range even further** – Nearly two-thirds (64%) of respondents said at least one of the bikeshare trips they made last month either started or ended at a Metro-rail station; 21% had used bikeshare six or more times for this purpose. About a quarter (24%) of respondents used Capital Bikeshare to access a bus in the past month.

- **Capital Bikeshare makes travel fun and more flexible** – More than three-quarters of members said they were motivated to join Capital Bikeshare to have access to a new travel option or a one-way travel option (84%), or simply because biking is a fun way to travel (77%). The opportunity to make one-way trips by bikeshare is particularly valuable to many members, who now have a wealth of travel options – bikeshare, transit, taxi, walking, carshare – that they can choose “in the moment,” increasing their travel flexibility.
- **Bikeshare serves both work-related and personal travel needs** – More than eight in ten (85%) respondents reported that they at least occasionally used bikeshare for social/entertainment trips. Respondents used bikeshare for other non-work trips at nearly as high a rate; personal appointments (79%), shopping/errands (78%), and to go to a restaurant/out for a meal (77%). But use of bikeshare was nearly as high for commuting; 74% of respondents at least occasionally used bikeshare to go to or from work. And commuting was a particularly frequent bikeshare purpose for these respondents; 49% commuted by bikeshare three or more times per month and 36% rode bikeshare to or from work six or more times per month.
- **Bikeshare allows members to give up the cost and hassle of car ownership and driving** – Four in ten Capital Bikeshare members didn’t have access to a car or other personal vehicle. Eight percent of all members surveyed had sold a household vehicle since joining CB and 81% of these members said bikeshare was a factor in their decision to sell the vehicle. A quarter (24%) of respondents said they reduced their driving miles since joining Capital Bikeshare. Across all respondents, the average driving reduction was 158 miles per year, equating to about 4.4 million fewer driving miles by the 27,600 bikeshare members (in November 2014).
- **Bikeshare members shift some trips to bicycle from taxi, transit, and walking** – Eighty-six percent of respondents increased their use of bicycling since joining Capital Bikeshare and 50% said they ride a bike much more often. By comparison, respondents reduced use of all other transportation modes; 55% drove a car less often, 59% used a taxi less often, 58% rode Metrorail less often, 52% rode a bus less often, and 51% decreased their use of walking, suggesting some shifts to each of these modes to biking.
- **Bikeshare members who used Capital Bikeshare frequently reported the greatest reduction in use of non-bicycle modes** – For example, 70% of respondents who made 11 or more CB trips in the past month reduced their use of Metrorail, compared with 46% of respondents who made between one and five CB trips in the past month, a net additional reduction of 28 percentage points for frequent riders. The results were similar for other non-bike mode groups; the share of respondents who reduced use of a non-biking mode since they joined Capital Bikeshare increased steadily as their bikeshare use increased.
- **Capital Bikeshare members save on personal travel cost** – Respondents reported saving an average of \$13.65 per week on personal transportation costs as a result of their bikeshare use, about \$710 over the course of the year. Across the estimated 27,600 Capital Bikeshare members in November 2014, the collective saving was nearly \$20 million each year.

- **Respondents give high marks to most bikeshare features** – More than six in ten gave ratings of 4 or 5 (Excellent) to safety of stations, Capital Bikeshare website, call center, mechanical repair of bikes, and maps at Capital Bikeshare stations. Respondents were least satisfied with the availability of bikes when they want to pick-up a bike and availability of open docks when they want to return it; only about four in ten respondents rated these features as 4 or 5.
- **CB members were eager for expansion of Capital Bikeshare** – The most noted expansion need appeared to be for more docks at existing stations; 54% of respondents chose this option for greater access to bikes in popular bikeshare pick-up and drop-off locations. The second highest priority was for new stations in residential neighborhoods (44%), perhaps indicating a desire for greater access to bikeshare for short trips within or from a home neighborhood. About the same share (43%) also noted a need for expansion within the existing service area (greater infill or density of stations). A third (32%) of respondents said they wanted expansion to areas that bikeshare doesn't serve now (greater coverage).

Bikeshare Users Demographic and Membership Characteristics

- **Bikeshare users did not mirror the adult population of the Washington metropolitan region** – More than nine in ten survey respondents were employed, while the U.S. Census reports that only about seven in ten adults in the Washington region are employed. But bikeshare survey respondents also differed from the general employed population. Compared with all commuters in the region, they were, on average, considerably younger, more likely to be male, Caucasian, and slightly less affluent.
- **Bikeshare visibility and referrals were important marketing tools for Capital Bikeshare** – Respondents were most likely to have learned about Capital Bikeshare by seeing a CB station (30%) or through a referral from a friend or family member (26%). These two sources have become more important as the program has matured; 35% of members who joined CB in 2014 mentioned seeing a station, compared with only 11% who joined in 2010 and 24% who joined in 2011. Referrals also have grown, with 35% of 2014 new members mentioning this source, compared with 11% of members who joined in 2010 and 24% of member who joined in 2011.
- **The primary motivations for joining Capital Bikeshare were for greater access and one-way travel flexibility** – Ninety-four percent of respondents said they were motivated by the ability to get around more easily or more quickly. Eight in ten (84%) were motivated by having a new travel option or a one-way travel option. But 77% were motivated simply by the enjoyment of biking and because it was a fun way to travel. About six in ten cited a desire for exercise (60%) or a desire to save money on transportation (57%).

Bikeshare Use Characteristics

- **Capital Bikeshare use was distributed evenly across frequency categories, showing demand for the service at many use levels** – About 20% of respondents had made two or fewer bikeshare trips in the month before the survey, 21% made between three and five

trips, and 19% made between six and ten trips. About 40% were frequent users, making 11 or more trips in the past month. Respondents made an average of 13 trips in the past month.

- **The top bikeshare trip purposes overall were for personal/non-work trips** – Eighty-five percent of respondents reported that they at least occasionally used bikeshare for social/entertainment trips and four in ten used bikeshare three or more times per month for this purpose. Eight in ten respondents used bikeshare for three other personal or non-work trip purposes: to reach personal appointments, shopping/errands, and restaurants/meals and about one-quarter of respondents used bikeshare for each of these purposes at least three times per month.
- **A large share of members used bikeshare for their trip to work** – Commuting was an important bikeshare purpose also; 74% of respondents used bikeshare to commute to or from work at least occasionally. But commuting was a particularly frequent bikeshare purpose for these respondents; 49% commuted by bikeshare three or more times per month and 36% rode bikeshare to or from work six or more times per month.
- **Capital Bikeshare also served as a feeder service to reach transit stops** – Two-thirds (64%) of respondents said that at least one of the Capital Bikeshare trips they made last month either started or ended at a Metrorail station and 21% had used bikeshare six or more times for this purpose. About a quarter (24%) of respondents used Capital Bikeshare to access a bus in the past month.
- **Respondents' recent bikeshare trips were evenly divided between work and non-work trip purposes** – The single most common recent trip purpose overall was to go to or from work; 46% of respondents noted this purpose. The most common recent non-work trip purposes were social/entertainment and personal appointment, mentioned by 19% and 9% of respondents, respectively. As noted above, a slightly smaller share of respondents reported using bikeshare for commuting than for non-work travel. But a larger share of respondents reported using bikeshare frequently for commuting than reported frequent use for any individual non-work purpose.
- **Bikeshare was the choice for most recent trips because it was the fastest and easier way to travel** – Eight in ten (80%) respondents chose bikeshare for the recent trip because it was a faster or easier way to reach their destination. Four in ten said the destination was too far to walk and an equal share said bicycling was the least costly option. Respondents also noted other issues related to characteristics of the destination or the time of day they were traveling; 23% said public transportation was not available or inconvenient to reach that destination, 21% said that parking was very limited at that destination, and 20% said that transit service didn't operate or was inconvenient at that time of day. About one-quarter used bikeshare because they didn't have a car.
- **Bikeshare offered a new travel option for members who didn't have a car and an alternative to driving for those who did** – Young respondents and respondents with lower

incomes were more likely to say they chose bikeshare for a recent trip for reasons related to their lack of transportation options: too far to walk, unavailable or inconvenient transit, or lack of a car. These respondents also noted reasons related to the time and cost advantage of Capital Bikeshare in comparison with other travel options. For these members, bikeshare expanded the range of destinations to include locations that were otherwise difficult to reach. Older respondents, those with higher incomes, and respondents who had a personal vehicle were more likely to mention reasons related to the disadvantages of driving to a particular destination. For these respondents, Capital Bikeshare made the destination more attractive or less of a bother to reach than it otherwise would be.

- **Forty percent of respondents would have ridden a bus or train if Capital Bikeshare had not been available for the most recent trip** – Another four in ten (37%) would have walked to their destination. Only 6% of respondents would have driven or ridden in a personal vehicle, but since 43% of respondents did not have a personal vehicle regularly available, this would not be an easy option for many. Six percent would have used a taxi and 5% would have ridden a personal bike.
- **Respondents' alternate mode choices for these trips differed by the type of trip they were making** – More than half of respondents whose last trip was to go to or from work would have used transit for the trip. Respondents whose last trip was for shopping/errands and exercise/recreation were more likely to say they would have walked than were respondents generally, suggesting they would have substituted a trip to a local shop for a trip to a shop farther away. Taxi would have been the choice for a higher than average share of social/entertainment and personal appointment trips.

Use of Capital Bikeshare to “Induce” Trips

- **In the past month, 49% of respondents used bikeshare to make at least one trip they would not have made (“induced” trips) if bikeshare had not been available** – Nearly all induced trips were made for non-commute trip purposes. One-quarter made an induced social/entertainment trip and 21% made a shopping/errand trip. Respondents also reported making induced trips to restaurants (16%), for personal appointments (14%), and for exercise/recreation (13%). Only 9% said they made an induced trip to go to or from work, indicating these trips were typically not considered discretionary trips.
- **Two-thirds (65%) of respondents said they would not have made the induced trips without Capital Bikeshare because it was too far to walk** – This suggests respondents might have substituted some induced trips to a distant destination for trips they might have made to locations closer to their origin location. In this way, Capital Bikeshare broadened the travel destination options. Other common reasons were related to characteristics of the destination or time of travel; 48% said bicycle was a faster or easier way to reach the destination and substantial percent-ages reported that public transportation was either not available or inconvenient to reach that destination (37%) or at that time of day (23%). One-quarter (25%) didn't have a car and 18% wanted to get exercise.

- **Capital Bikeshare access made establishments more attractive to Bikeshare members** – More than eight in ten respondents said they were either much more likely (34%) or somewhat more likely (48%) to patronize an establishment that was accessible by Capital Bikeshare.
- **Respondents who gave high ratings for the value of bikeshare access made induced trips at a much higher rate than did those who gave lower ratings** – Among respondents who were much more likely to patronize a CB-accessible establishment, 96% made at least one bikeshare trip last month, compared with 91% of those who were not more likely. But a more interesting finding is that respondents who said they were much more likely were the most frequent users of the Capital Bikeshare service; 50% made six or more trips, compared with about one-third of those who were somewhat more likely or not more likely to patronize the bikeshare-accessible establishment. This suggests that the decision to make some, and perhaps many, of the induced trips was motivated by the establishments' accessibility.

Change in Mode Use Since Joining Capital Bikeshare

- **Bikeshare members substantially increased their bicycle use and substantially reduced their car and taxi use since they joined Capital Bikeshare** – More than eight in ten respondents said they bicycled more often since joining; 34% said they bicycled “somewhat more often” and 50% bicycled “much more often.” More than half (55%) of all survey respondents drove a car less often. Six in ten (59%) said they used a taxi less often than before they joined Capital Bikeshare. Bikeshare members also substantially reduced their use of public transit; 58% rode Metrorail less often and 52% rode a bus less often. And 51% of respondents decreased their walking trips.
- **Bikeshare members who used Capital Bikeshare frequently reported the greatest reduction in use of non-bicycle modes** – For example, 74% of respondents who made 20 or more CB trips in the past month said they reduced their use of Metrorail, compared with 46% of respondents who made fewer than six CB trips, a net additional reduction of 28 percentage points. The results were similar for other non-bike mode groups; the share of respondents who reduced use of a non-biking mode since they joined Capital Bikeshare increased steadily as their bikeshare use increased. The change was most pronounced for Metrorail and bus (net differences of 28 points and 26 points, respectively). The differences were less dramatic for use of walking (11 points), driving a car (12 points), and taxi (8 points), suggesting that bikeshare was substituted less often for these modes.
- **A quarter of respondents reduced their annual driving miles** – Respondent also were asked approximately how many miles they drove per year in the Washington region at the time of the survey and how many miles they drove in the year before they joined Capital Bikeshare. A quarter (24%) reduced their driving miles; 8% reduced driving by more than 1,000 miles. Two-thirds (64%) of respondents who reported their mileage made no change in driving miles and only 12% increased their driving miles.
- **Capital Bikeshare members reduced 4.4 million driving miles annually** – On average, survey respondents who re-reported both a current and pre-Capital Bikeshare mileage drove about 2,830

miles per year before joining Capital Bikeshare and 2,672 miles per year at the time of the survey, for a reduction of about 158 miles annually. When these survey results were applied to the estimated 27,600 bikeshare member population in November 2014, the month in which the survey was conducted, the results were as follows:

# Capital Bikeshare members (November 2014)	27,600
Estimated annual VMT reduced per member	158
Estimated total annual VMT reduced	4,360,000 miles (rounded)

- On average, each Capital Bikeshare member saved \$710 per year on personal travel cost –** More than eight in ten (83%) respondents said they saved money on weekly travel costs by using Capital Bikeshare. About six in ten said they saved between \$1 and \$20 per week, 16% saved between \$21 and \$40, and 5% saved more than \$40. Across all respondents, the average weekly saving would be \$13.65, or about \$710 annually. Collectively, the estimated 27,600 Capital Bikeshare members in November 2014 were saving nearly \$20 million per year:

Estimated annual cost saving per member	\$710
Estimated total annual cost saving	\$19,600,000 (rounded)

Bikeshare Members' Commute Travel Patterns

- Bikeshare members traveled an average of 6.2 miles to work one-way, well under the average 16.0 miles distance of commuters region-wide –** Two in ten bikeshare respondents traveled fewer than two miles to work and 61% traveled fewer than five miles. By contrast, only 17% of all regional commuters traveled fewer than five miles.
- Capital Bikeshare members drove alone to work much less than did commuters region-wide –** The overwhelming majority of employed respondents used a non-drive-alone mode of travel to get to work: 43% of CB members primarily used public transit to get to work, 29% primarily biked to work, and 12% commuted by walking. Only 11% primarily drove alone to work. Bike commute use was particularly high for members who lived close to work; among CB members who traveled less than five miles to work, 39% primarily rode a bicycle.
- About three in ten employed respondents started or increased use of biking for their trip to work since joining Capital Bikeshare –** Thirteen percent started or increased use of bicycle as their primary mode, the mode they used most often for commuting. Another 19% started using bike as a secondary mode, defined as a mode they used one or two days per week or as a way to access their primary mode. As a result of this increased use of bike, the share of respondents who primarily biked to work increased from 9% of employed respondents to 29%.
- Access to bicycle support services appeared to influence use of bicycle for work travel –** Bikeshare survey respondents were twice as likely to report that their employers offered bike racks, showers, personal lockers, and other bicycle-support services (56%) as were all commuters region-wide (27%). They also were more likely to have bicycle services than were other commuters in the jurisdictions where they worked. Respondents who had access to

bicycle-support services biked to work at a higher rate than did respondents who did not have access to these services; 35% of respondents who said bicycle services were available bicycled to work, compared with 23% of those who did not have bicycle services.

Satisfaction with Capital Bikeshare

- **Respondents gave generally high marks to bikeshare features** – At least six in ten gave ratings of 4 or 5 (Excellent) to safety of stations, Capital Bikeshare website, call center, mechanical repair of bikes, and the map at Capital Bikeshare stations. Respondents were least satisfied with the availability of bikes at docks and the availability of open docks when they were returning bikes; these features were rated as a 4 or 5 by only 39% and 38% of respondents, respectively.
- **About two-thirds of respondents reported some problem with using Capital Bikeshare services** – Thirty-five per-cent had a mechanical issue with the bike, 34% said they had an issue with the bike dock, and 28% encountered issues accessing a bike with the membership key.
- **Respondents expressed substantial interest in a card that could be used to access both Capital Bikeshare and public transit** – Ninety-one percent of respondents said they would be somewhat interested (31%) or very interested (60%) in a Capital Bikeshare fob or SmarTrip card that they could use to access both Capital Bikeshare and public transit service. Only 6% said they were not interested in this service. Members were less interested in a no annual fee, pay-per-ride membership option; only 32% were either somewhat interested (25%) or very interested (7%) in this option. But an additional 28% said their interest would depend on the cost per ride.
- **Capital Bikeshare members wanted both more bikes at existing locations and expansion of Capital Bikeshare to new destinations** – The most often noted expansion need was for more docks at existing stations; 54% of respondents selected this option for greater access to bikes in popular bikeshare pick-up and drop-off locations. The second highest priority was for new stations in residential neighbor-hoods (44%), perhaps indicating a desire for greater access to bikeshare for short trips within or from a home neighborhood. A similar percentage (43%) indicated a need for expansion within the existing service area (greater infill or density of stations and 32% of respondents said they wanted expansion to areas that bikeshare doesn't serve now (greater coverage).

APRIL 2015
COMMUTER RESEARCH SUMMARY REPORT SUMMARY
COMMUTERS CONNECTIONS

BACKGROUND

This report summarizes the methodology and results of research completed in FY2015 on the Commuter Connections program marketing activities. Specifically, this report summarizes what's working, what isn't, and what can be done to further improve and empower the regional marketing efforts of the Commuter Connections program.

COMMUTER SURVEY

The research included an on-line survey of Metropolitan Washington commuters that assessed current and recent marketing creative to help determine which ideas commuters are responding to, as well as what is motivating their behavior change. Those surveyed included male and female commuters aged 18-65, living within the Washington metropolitan region. Survey participants were made up of a mix of gender, ethnicities, education, marital status and income. States of residence were as follows: Washington D.C. 13.04%, Maryland 47.83%, and Virginia 39.13%.

METHODOLOGY

The online survey was made available to the general public, and Facebook advertising was used to drive traffic to the survey. Respondents were polled on three different ad concepts for both Ridesharing and GRH. Each concept was presented with a visual image along with a radio script. The survey was conducted from December 1 – 31, 2014.

The survey consisted of 31 individual questions with about half serving as qualifier questions, and half gauging interest in specific ad concepts. Key words used in the questions were carpooling, transportation, traffic, transit, and commuting. A total of 51 responses were received. A chance to win a \$100 Amazon.com gift card was used as an incentive for commuters to complete the survey. Commuters that included their email address were entered into a drawing for the incentive at the end of the web survey period. One winner was chosen using Random.com.

FINDINGS OF THE SURVEY

- Commuters overwhelmingly preferred the use of text and email to communicate. Mobile phone and social media were close seconds. Social media, web, radio, and TV are the preferred means of learning more about commuting. We also know we have to meet them where they are and make it easy for them to click and/or share. The more the audience understands the message, the more likely they were to want to know more.
- After reviewing the ads in the survey, over half of respondents were somewhat or very interested in learning more about the options. This shows that if they have a chance to understand, many will wish to learn more. It also appears a large percentage of the Commuter Connections audience is teleworking, at least part-time.

- Rideshare concept understanding was at or above 70%. Guaranteed Ride Home (GRH) concept understanding was above 80%. The general pattern was that if a respondent understood the concept, he/she wanted to learn more about the program.

- GRH ad that ranked highest used the radio ad time to:
 - Explain the program in plain English.
 - Use terms "some restrictions apply".
 - Positioned the program as something to put in place now, so it's there when needed.

OCTOBER 2015

2014 PERFORMANCE OF HIGH-OCCUPANCY VEHICLE FACILITIES ON FREEWAYS IN THE WASHINGTON REGION SUMMARY

NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD

BACKGROUND

Presented in this report is information developed from data collected in spring 2014 along five operational high occupancy vehicle (HOV) corridors in the Washington region. Data were collected from 5:00am to 10:00am during the inbound peak flow direction.

DATA COLLECTION METHODOLOGY

The information in this report is multi-modal so that comparisons between the HOV, single occupant vehicle (SOV), and transit modes may be made. Data were collected for HOV lanes and adjacent non-HOV lanes, and bus transit operating on the HOV lanes.

Data collection was limited to weekdays; Tuesdays, Wednesdays, and Thursdays only were used for the maximum load points on the HOV system. No data collection took place in weeks prior to, during, and after the Passover and Easter holidays, nor during the public school spring breaks. Data collection was deferred if the weather forecast predicted steady rainfall, or if a serious freeway incident affected traffic operations. The reader is cautioned that count data presented in this document are based on one-day counts, which may vary significantly from day to day.

HOV FACILITY PERFORMANCE

HOV facilities can be evaluated using several measures of effectiveness. Examples include average auto occupancy, which is the average number of persons in each auto; total person movements by auto and transit bus; and travel times for users of HOV facilities in comparison with non HOV or conventional lanes.

HIGH OCCUPANCY VEHICLE FACILITIES

HOV facilities are designed to offer several advantages over conventional lanes and roads. HOV facilities can:

- Increase the average number of persons per motor vehicle using a highway over conventional (non-HOV) lanes or roadways.
- Preserve the person moving capacity of a lane or roadway as demands for transportation capacity increase.
- Enhance bus transit operations.
- Support air quality goals.
- Serve a variety of employment centers in urban and suburban areas.
- Provide predictable travel times even during periods of high demand for highway capacity.

HOV lanes were operational in the following Washington Region corridors as of spring 2014:

- I-95/I-395 (Shirley Highway) in Northern Virginia (fully barrier-separated HOV lanes)
- I-66 inside the Capital Beltway in Fairfax and Arlington Counties (exclusive HOV facility in the peak commute direction during the peak commute period)

- I-66 outside the Beltway in Fairfax and Prince William Counties (concurrent flow HOV lanes)
- I-270 (and the I-270 Spur) in Montgomery County, Maryland (concurrent flow HOV lanes)
- VA 267 (Dulles Toll Road) (concurrent flow HOV lanes)
- US 50 (John Hanson Highway) in Prince George's County, Maryland (concurrent flow HOV lanes)

CONCLUSIONS

Most comparisons are made with results obtained from the previous Regional HOV reports for 1997, 1998, 1999, 2004, 2007, and 2010. Trends and changes are emphasized for the HOV restricted periods inbound and outbound.

The following major trends were observed:

- All of the HOV lanes in spring 2014 were observed to carry more persons per lane during the HOV restricted periods than adjacent non-HOV lanes except on US 50.
- Most of the HOV lanes provide savings in travel times when compared to non-HOV alternatives, especially the barrier separated HOV lanes in the I-95/I-395 corridor in Northern Virginia.
- Performance of the concurrent-flow HOV lanes in the I-66 lanes (outside I-495) and along I-270 were at certain points between 10 and 25 MPH slower than adjacent non-HOV lanes, as well as sections of the exclusive I-66 HOV facility inside I-495 (staff examined data from the Vehicle Probe Project and found recurring congestion along I-66 eastbound from the Dulles Connector Road to a point between Sycamore Street and Va. 120 [North Glebe Road]).
- Average auto occupancy in 2014 was little changed from 2010, even though the HOV lanes in Northern Virginia continue to exempt vehicles with "Clean Air" registration plates from the HOV requirement.

SEPTEMBER 2016
2016 RETENTION RATE SURVEY REPORT
COMMUTER CONNECTIONS

This report was conducted for the first time in FY2016 and presents the results of a “retention rate” survey, by telephone and internet, of 989 commuters who participated in Commuter Connections’ carpool/vanpool ride-matching service, regional Guaranteed Ride Home (GRH) program, or who requested other commute information or assistance from the Commuter Connections website in the Washington DC metropolitan region. These services are operated by the Metropolitan Washington Council of Governments to assist commuters who live and/or work in the region to use travel modes other than driving alone to travel to and from work. The purpose of the survey is to estimate the share of past service users who made shifts to alternative modes and who continued to use alternative modes years after receiving the services.

SURVEY GOALS

The primary goal of the Retention Rate survey was to estimate the percentage of commuters who previously participated in Commuter Connections’ GRH Program or who received other Commuter Connections services who shifted to alternative modes for commuting and continued using those modes. The survey was conducted to support the 2017 triennial Commuter Connections Transportation Emission Control Measures (TERM) evaluation.

The 2016 Retention Rate survey was designed to estimate how long TERM-related mode shifts that past service users made prior to the start of the current evaluation period (July 2014) continued. Survey respondents were asked about Commuter Connections services they received, how they commuted at the time of the survey, and what modes they used prior to starting to use current alternative modes. The survey data were used to develop an estimate of the “retention rate” or lifecycle of continued alternative mode experience.

SURVEY RESULTS

Following are key results from each section of the survey.

- Demographics of the sample
- Services received from Commuter Connections
- Current commute modes
- Previous commute modes (commute modes before receiving services)
- Alternative mode retention rates
- Motivations for driving alone
- Motivations for using alternative modes
- Desired improvements to Commuter Connections services

CHARACTERISTICS AND DEMOGRAPHICS OF THE SAMPLE

Demographics

The survey asked respondents four demographic questions: gender, income, age, and ethnic group.

- A higher proportion of respondents were female (56%).

- More than seven in ten respondents (73%) had household incomes of \$100,000 or more and 43% had incomes of \$140,000 or more.
- More than seven in ten (72%) were between the ages of 45 and 64 years old, two in ten (21%) were under 45 years old, and 7% were 65 year or older.
- Caucasians/Whites and African-Americans represent the two largest ethnic group categories of respondents, 72% and 17% respectively. Asians account for about 4% and Hispanics account for about 4%.

Work Schedule

- The overwhelming majority (97%) of respondents worked full-time.
- 23% worked a compressed schedule in which they worked a full-time schedule in fewer than five days.
- 13% worked a 9/80 compressed schedule, with one weekday off in alternate weeks.
- 10% worked either a 4/40 schedule, with one weekday off each week or 3/36 schedule, with two weekdays off per week.

Commute Length

- More than half (55%) of respondents traveled 30 or more miles to work and 33% commuted 40 or more miles to work.
- The average one-way distance across all respondents was 33.9 miles.

SERVICES RECEIVED FROM COMMUTER CONNECTIONS

The primary goal of the survey was to determine the share of past service users who were “retained” in (e.g., continued using) alternative modes. Because the retention rate could be affected by the services they received, the survey asked several questions at the start of the survey to define the services.

- 81% of respondents said that had participated in the GRH program.
- 38% of respondents said they received one or more of the carpool/vanpool services listed.
- 35% of respondents had received a transit or bike support service.
- 43% of respondents said that GRH was the only Commuter Connections service they received.
- 19% of respondents reported receiving only non-GRH services, but had not participated in GRH.
- 38% of respondents said they received both GRH and another Commuter Connections service.
- 61% said their first participation year was before 2009.
- 23% first participated in 2009 or 2010.
- 11% first participated in 2011 or 2012.
- 5% first participated in 2013 or 2014.

CURRENT AND PREVIOUS COMMUTE MODES AND ALTERNATIVE MODE RETENTION RATES

The overriding objective of the survey was to estimate the share of service users who made shifts to alternative modes after receiving Commuter Connections services and the share of commute trips that these commuters were still making in alternative modes at the time of the survey. To answer these results, respondents were first asked how they were commuting “in a typical week” at the time of the survey (current). They then were asked about their commute before they registered for GRH or before they received other non-GRH services.

Current Commute Modes

- Over three-quarters of respondents said that 78% of their weekly commute trips were by alternative modes; they made only 22% of weekly trips by driving alone.
- They made 39% of weekly commute trips by bus or train, 13% by carpool, 7% by vanpool, and 4% by walking or bicycling.
- Respondents eliminated 15% of weekly commute trips by telework and compressed work schedules.

Alternative Mode Use by Last Activity Date

- Seven in ten (70%) respondents whose last activity date was 2013 or 2014 were using alternative modes at the time of the survey.
- Use of alternative modes was lower among respondents whose last activity date was 2011 or 2012 (62%), but respondents who last participated between 2008 and 2010 had an equally high rate of alternative mode use (62%).
- Transit use was highest for early-year respondents; 2008-2010 respondents made 41% of their weekly commute trips by transit, compared with 36% for those who last participated in 2013 or 2014.
- Vanpooling use was notably higher among recent respondents; 2013-2014 respondents made 14% of their weekly trips by vanpooling, compared with 11% for 2011-2012 respondents and just 4% for respondents with a last activity date between 2008 and 2010.

Alternative Mode Use by Program Used

- Respondents who participated in GRH, either as GRH Only or GRH/Non-GRH, used alternative modes for considerably larger shares of their trips than did Non-GRH Only users.
- GRH Only respondents made 67% of their weekly commute trips by alternative modes.
- GRH/Non-GRH commuters used alternative modes for 64% of weekly trips, compared with 51% for respondents who received only a non-GRH service.

Alternative Mode Use by Year and Program

- Alternative mode use among GRH Only and GRH/Non-GRH users was higher than for the Non-GRH Only respondents for each year grouping.
- The alternative mode use was only slightly different by last activity year.
- The only statistical difference by year was for the GRH Only group; the alternative mode use rate for 2013-2014 respondents (90%) was statistically higher than the rate for 2008-2010 respondents (80%).

Alternative Mode Use by Demographic Characteristics

- Current alternative mode use was higher among respondents who were male, Black/African-American, 45 years or older, and with household incomes of \$100,000 or more.

Commute Mode Before Receiving Commuter Connections Services

The second element needed to estimate retention rates was the modes respondents used before they registered for GRH or before they received non-GRH commute services. Before receiving services, respondents used alternative modes for 72% of weekly trips

- They used a bus or train for 45% of weekly trips
- Carpooled for 15% and vanpooled for 7%.
- And bicycled or walked for 4%.

- They drove alone for 23% of weekly commute trips and eliminated 5% of weekly trips through telework and compressed work schedules.

Alternative Mode Use Before Receiving Services by Program Classification

- GRH Only respondents made 81% of their commute trips by alternative modes before joining GRH.
- GRH/Non-GRH respondents used alternative modes for 74% of their weekly commute trips.
- Prior alternative mode use was much lower, 50%, among respondents who received only Non-GRH services.

New Alternative Mode Retention Rates by Last Activity year

- The retention rate for respondents with a last activity date of 2013-2014 was 28%.
- 15% of these respondents drove alone before receiving the services but started using an alternative mode and 13% used alternative modes before receiving services but changed to a different alternative mode.
- The overall retention rates were essentially the same for respondents with last activity date of 2011-2012 (32%; 11% previous drive alone, 21% previous alternative mode) and 2008-2010 (29%; 11% previous drive alone, 18% previous alternative mode).

New Alternative Mode Retention Rates by Program Classification

- The retention rate for GRH users was 31%.
- 11% of these respondents drove alone before registering for GRH but started using an alternative mode and 20% used alternative modes before registering for GRH but changed to a different alternative mode.
- The retention rate for non-GRH users was 23%; 14% who previously drove alone and started using an alternative mode and 9% previous alternative mode users who switched to a new alternative mode.

Commute Mode “During” Commuter Connections Service Use

The survey primarily was concerned with comparing current commute mode use with mode used prior to receiving services. But other Commuter Connections surveys found that some respondents who were driving alone at the time of the survey had used alternative modes after receiving services, but for a temporary period of time. GRH respondents in particular would have been required to use alternative modes at least two days per week to participate in the program. So, GRH users and GRH/Non-GRH users were asked about their commute modes “while they were registered” for GRH.

- 91% of GRH users who were driving alone at the time of the survey said they had used alternative modes while they were registered for GRH.
- About two-thirds used public transit, 30% rode in a carpool and 19% vanpooled.
- On average they used some combination of these modes about 4.3 days per week.
- The 9% of GRH users who did not report alternative mode use during GRH represent about 1% of all GRH users.

Duration of Alternative Mode Use

Non-GRH Only respondents who were driving alone at the time of the survey, but who previously used alternative modes were asked how long they used them for their commute; in essence, what was the duration of their temporary shift to alternative modes.

- About one-third (35%) of these respondents said they used the alternative mode for one month or less.
- More than half (52%) used it for six months or less.
- Almost one-quarter used the mode for more than two years.

Last Year Using Alternative Modes

- Nearly nine in ten (89%) of all respondents continued using an alternative mode until 2015 or 2016 (current alternative mode users).
- The remaining respondents stopped using alternative modes in 2013-2014 (4%) or before 2013 (3%).
- 4% of all respondents said they had never used an alternative mode, either before or since receiving Commuter Connections assistance.
- Among GRH users, 93% were still using alternative modes in 2015 or 2016.
- Among Non-GRH Only users, 95% were using alternative modes as recently as 2015.

MOTIVATIONS FOR DRIVING ALONE AND FOR USING ALTERNATIVE MODES

Commuters use and switch among commute modes for many reasons related to service and personal motivations. To examine these motivations, survey respondents who were driving alone at the time of the survey but who had used alternative modes previously were asked why they shifted to driving alone. Respondents who were using alternative modes at the time of the survey were asked about the reasons they continued using these modes.

Reasons to Shift to Driving Alone

- 37% of respondents said they shifted to driving alone because they changed jobs or work hours or because their work location changed.
- About two in ten (21%) said that they moved to a new residence.
- 15% said that their carpool or vanpool arrangement had broken up.
- 15% did not like carpooling/bus/train.
- 14% said that driving alone was easier, faster, or less expensive.

Reasons to Continue Using Alternative Modes

- 41% of alternative mode users said the reason was that the mode they were using was the easier or most convenient mode.
- One-quarter (25%) of respondents said they saved money or reduced wear and tear on a personal vehicle.
- 20% said they enjoyed riding the bus/train, riding with others in a car-pool/vanpool, or liked walking/bicycling.

Role of Commuter Connections Services in Influencing or Assisting Continued Use of Alternative Modes

Respondents who were using an alternative mode also were asked if any of the services they received from Commuter Connections had “influenced or assisted” them to continue using these modes.

- More than half (52%) of current alternative mode users said at least one Commuter Connections service had assisted or influenced their continued use of the modes.
- In general, about one-third to one-half of the respondents who received each service said it had influenced or assisted them.

- Overall, the most influential/helpful service was GRH, named by 32% of all alternative mode users and more than one-third of those who had received this service.
- Transit schedule/route information was cited by 16% of all alternative mode users and over half of those who had received it.

COMMUTER CONNECTIONS SATISFACTION

Desired Improvements to Commuter Connections Services

Respondents were asked if they had any suggestions for ways Commuter Connections could improve its services.

- About 25% of all respondents provided suggestions.
- Comments generally fell into three categories: GRH suggestions, Non-GRH service suggestions, and customer service suggestions.
- No single suggestion was named by more than 4% of all respondents.
- There did not appear to be significant programmatic or customer service issues that need particular attention.

Reasons for Not Re-registering for GRH

GRH respondents who were using alternative modes at the time of the survey were asked a related question. By using alternative modes, these commuters were still eligible to participate in GRH, but had not renewed their registration at the end of the most recent year. The survey asked these respondents why they had not continued their registration.

- The most common personal reason for not re-registering, mentioned by 18% of respondents, is that they had never used the program, thus didn't see a need for it.
- 4% made their own arrangement for a ride home, 3% moved to a new residence, and 2% changed jobs.
- 25% said they didn't know they had to re-register and 16% forgot to re-register.
- 13% said they hadn't gotten around to it.
- 18% said it was too much effort to use the program.
- 7% reported general dissatisfaction with GRH.

SEPTEMBER 2016

2016 GUARANTEED RIDE HOME PROGRAM APPLICANT SURVEY REPORT WASHINGTON DC REGION COMMUTER CONNECTIONS

This report presents the results of a Guaranteed Ride Home (GRH) survey of 2,171 commuters who currently participate or who have participated in the Commuter Connections regional GRH Program operated by the Metropolitan Washington Council of Governments (MWCOC) for commuters who work in the metropolitan Washington region. MWCOC, through the National Capitol Region Transportation Planning Board, introduced the Commuter Connections GRH Program in 1997 to eliminate one barrier to using alternative modes - commuters' fear of being without transportation in the case of an emergency. The program provides up to four free rides home per year in a taxi, rental car, public transit, or a combination of these modes, in the event of an unexpected personal emergency or unscheduled overtime.

SURVEY GOALS

The primary goal of the GRH survey was to examine characteristics of GRH Program participants. Since 1997, Commuter Connections has collected data on GRH applicants through periodic surveys conducted to assess travel and air quality impacts of GRH participants. The 2016 GRH survey is the sixth such survey; previous GRH surveys were conducted in 2001, 2004, 2007, 2010, and 2013.

The survey is designed to examine three key research questions regarding potential travel changes that might be influenced or assisted by the GRH program. Specifically, the survey explores if the GRH program:

- Encourages commuters who drive alone to work to shift to alternative modes.
- Encourages commuters who use alternative modes to use these modes more days per week.
- Encourages commuters who use alternative modes to use them for a longer period of time.

PROGRAM PARTICIPATION FINDINGS

Several results related to program participation are notable:

- The GRH program continued to attract new participants but also retained many current participants. One-quarter of current registrants had been registered for one year or less, but nearly seven in ten (68%) had been participating for more than three years.
- About half (52%) of all respondents were no longer registered for the GRH program (past registrants); however, 56% of respondents whose registrants had expired and were listed as past registrants in the database thought they were still registered. Responses to a later question suggest many of these respondents did not realize they needed to re-register each year, so assumed they were still eligible for the program.
- Past registrants left the program for two types of reasons: reasons associated with characteristics of the program and reasons associated with personal circumstances of the registrants. The most frequently mentioned program reason was respondents "did not know I had to re-register" (23%), this percentage was about the same as in 2010 and 2013. "Forgot to re-register" was cited by 20% of respondents, the same as in 2013 and 2010.
- Six percent said they "had problems/difficulties re-registering." This could be related to the use of the online system, which requires respondents to recall a password to make changes to their accounts. Nine percent were "dissatisfied with the program/had a bad experience."

SURVEY RESULTS

Where relevant, survey results are compared for the following sub-groups of respondents and with corresponding data for the 2001, 2004, 2007, 2010, and 2013 Washington region GRH surveys, when these data are available.

- Demographics of the sample.
- GRH participation characteristics.
- GRH information sources.
- Current commute patterns for GRH participants.
- Commute patterns before and during participation in GRH.
- Influence of GRH on commute choices.
- Use of other, non-GRH services provided by Commuter Connections and other organizations.
- Use of and satisfaction with GRH trips and the GRH Program.

CHARACTERISTICS AND DEMOGRAPHICS OF THE SAMPLE

Home and Work Location

- In the 2016 survey, the majority of respondents lived in Virginia (55%).
- Four in ten (40%) lived in Maryland.
- A few (2%) lived in the District of Columbia or in another state (3%).
- More than six in ten respondents worked in the District of Columbia (64%) and almost two in ten (21%) worked in Virginia.
- The remaining 15% worked in Maryland.
- These home and work distribution percentages were essentially the same as in the 2010 and 2013 surveys, with the exception that the share of Maryland respondents had increased and the share of Virginia respondents declined over the past six years.

Demographics

The survey asked respondents four demographic questions: gender, income, age, and ethnic group.

- A higher proportion of GRH participants were male (53%) than female (47%).
- More than half of respondents (56%) had household incomes of \$120,000 or more and 16% had incomes of \$200,000 or more.
- About half (53%) were between the ages of 35 and 54 years old, four in ten (39%) were 55 years or older, and 8% were under 35 years old.
- Caucasians/Whites and African-Americans represent the two largest ethnic group categories of GRH survey respondents, 70% and 17% respectively. Asians account for about 6% and Hispanics account for about 5%.

GRH PARTICIPATION CHARACTERISTICS

- Almost three-quarters (74%) of respondents said they were currently registered for GRH. The remaining quarter (26%) said they had been registered in the past, but were not currently participating. No respondents self-identified as a one-time exception user.
- About seven in ten respondents (69%) said they first registered before 2013, 9% registered in 2013, 11% registered in 2014, and 10% registered in 2015. A small percentage said they

registered in 2016, but because the GRH survey interviews were conducted in April and May 2016, registration figures for 2016 include only registrants who joined GRH in January 1 through March 15.

- About 1% said they had participated previously in another GRH program.
- Almost eight in ten (78%) of all respondents participated or have been participating for two or more years and 58% had been participating for more than three years. 24% have been registered for one year or less, compared to 17% of past registrants.

GRH INFORMATION SOURCES

- Almost a third (30%) mentioned word of mouth/referrals as their source of information, similar to the 31% who gave this response in 2013 and 34% who gave this response in 2010, but a significant increase over the 26% who gave this as their source in the 2004 survey. Other sources were similar in 2016 as in 2013.
- In 2016, the Internet was mentioned as a source by a slightly higher proportion of respondents (11%) than in 2013 (9%).
- Smaller percentages of respondents noted radio (10%), their employer (9%), a sign on the bus or train (4%), direct mail postcard sent to them directly by Commuter Connections (3%), or another rideshare or transit organization (4%).
- Respondents were more likely to have seen or heard GRH advertising if they had registered before 2011, compared to a more recent registration.

CURRENT COMMUTE PATTERNS FOR GRH PARTICIPANTS

- The overwhelming majority (99%) of respondents worked full-time, but 23% worked a compressed schedule in which they worked a full-time schedule in fewer than five days; 19% worked a 9/80 compressed schedule, with one weekday off in alternate weeks and 4% worked a 4/40 schedule, with one weekday off each week.
- Bus was used by three in ten (30%) respondents and commuter rail was used by 24% of current registrants. Vanpool and carpool were used by 15% and 13%, respectively, of current registrants. Metrorail was the primary mode for 11% of current registrants. Only 2% of current registrants said they primarily drove alone to work. Four percent said they primarily telecommuted and 1% bicycled or walked to work.
- Past registrants were more likely than current registrants to drive alone (25%). But nearly seven in ten (68%) said they still used an alternative mode most of the time, even though they were no longer in the GRH Program. Almost two in ten (19%) ride a bus, 17% ride commuter rail, 12% ride Metrorail, 11% carpooled, 7% vanpooled, 7% teleworked, and 2% bicycled or walked.
- The share of current registrants who used carpool/vanpool as their primary mode has declined from 36% of all registrants in 2007 to 28% in 2016. Use of Metrorail also has fallen, from 17% to 11%. Conversely, use of bus and commuter rail has increased. In 2007, only 22% of GRH registrants primarily rode a bus to work; in 2016, 30% of registrants primarily rode the bus. And the commuter rail has increased from 18% to 24%.
- The average one-way commute distance for GRH respondents was 35.9 miles. This is considerably longer than the distance of 17.3 miles traveled by the average commuter in the Washington metro region, as defined by the 2016 regional State of the Commute survey. More than six in ten (62%) GRH respondents commute 30 or more miles to work, compared to just 18% of all regional commuters.

- GRH participants commute, on average, about 86 minutes one way. This is also much longer than the commute time for all regional commuters, who commute an average of 39 minutes.

COMMUTE PATTERNS BEFORE AND DURING PARTICIPATION IN GRH

- 24% of respondents primarily drove alone Pre-GRH.
- Primary use of carpool/vanpool use increased from 20% Pre-GRH to 28% During-GRH, bus use rose from 20% to 29%, and the share of respondents using commuter rail as their primary mode grew from 19% to 24%. Metrorail appears to have declined, but this difference was not statistically significant.
- Respondents who were using alternative modes before they joined GRH largely remained in their Pre-GRH modes after they joined GRH. Respondents who previously carpooled/vanpooled (77%), rode a bus (79%), or used commuter rail (79%) stayed in these modes. The Metrorail retention was noticeably lower at 58%.
- The average number of days all GRH participants used alternative modes increased, from 3.4 days per week to 4.5 days per week. But the majority of the increase came from respondents who did not use alternatives at all Pre-GRH.

INFLUENCE OF GRH ON COMMUTE PATTERN DECISIONS

- About two in ten (23%) respondents said they started using alternatives at the time they joined GRH. A small number of respondents (3%) increased the number of days they used alternative modes. These percentages were similar to those reported in the three previous GRH surveys (2007, 2010, and 2013). The largest share of respondents (73%) said they maintained but did not increase use of an alternative mode that they were using before GRH. This is to be expected, since most respondents were using an alternative pre-GRH and most used alternative modes four or five days per week pre-GRH. This percentage of “maintained” alternative mode use is about the same in 2016 as was observed in 2010 and 2013.
- Half (51%) of all the respondents who drove alone Pre-GRH and started using alternative modes During-GRH said GRH was “very important” to the decision to make the change. Three in ten (29%) said GRH was “somewhat important” to the decision. The remaining 20% said GRH was “not at all important.”
- About 77% of respondents who maintained use of an alternative mode or who started using alternative modes said GRH was “very important” or “somewhat important” to their decision.
- GRH appeared to be slightly less important to respondents who increased their use of alternative modes as for decisions to start or maintain use of alternatives. Two-thirds (64%) of respondents said it was “very important” or “somewhat important” to this decision, compared with 80% of respondents who started an alternative mode and 77% who maintained alternative modes. About 25% said it was “not at all important” to the decision. But the sample for this group is small, relative to the start alternative mode group.
- Nine in ten (91%) respondents who were vanpooling Pre-GRH said GRH had been somewhat or very important to their decision to continue using this mode. Among carpools, bus riders, and commuter rail riders, the share who rated GRH as important is between 76% and 83%. But only about seven in ten Metrorail riders rate GRH as important, likely because Metrorail runs at a reasonable frequency all day long, so many Metrorail commuters have an acceptable emergency option even without GRH.
- Despite the high percentage of respondents who rated GRH as “very important” or “somewhat important” to their decisions to use alternative modes, most respondents said they were likely

to have made these decisions anyway, implying that GRH was not essential to their decision. These results are consistent with other GRH program evaluations.

USE OF AND SATISFACTION WITH GRH

- One-third (33%) of respondents said they had taken a GRH trip. This was about the same as the 31% reported in 2013 and the 33% reported in 2010, but significantly higher than the result in 2007 (23%). Current registrants (36%) used GRH trips at a significantly higher rate than did past registrants (27%). This could be because current registrants have been participating in GRH for a longer time period than past registrants. Thus, they have had a longer time in which to encounter a situation in which they would need a GRH trip.
- The average one-way distance of a respondent who used a GRH trip was 39.8 miles one-way, compared to 35.9 miles for all GRH respondents overall. Respondents who had the shorter commutes, less than 10 miles or between 10 and 19.9 miles one-way, were the least likely to use a trip (18% and 26%, respectively). About three in ten (32%) respondents who travel between 20 and 29 miles have taken a trip and 34% of those that travel between 30 and 39 miles had taken a trip. This suggests that registrants with shorter commutes find another travel option in the case of an emergency, such as being driven by a co-worker or taking public transportation or a taxi, for which they pay themselves.
- The overwhelming reason (73%) for using the GRH program was “illness,” either of the respondent (32%), another family member (27%), or a child (16%). “Unscheduled overtime” (12%) and “other personal emergency” (9%) were the two other common reasons.
- The overwhelming majority (94%) said they were satisfied. The primary reasons given by the unsatisfied respondents include: waited too long (17 respondents), difficult to get approval (8 respondents), or didn’t like the taxi driver (2 respondents).
- Respondents waited an average of 15 minutes for a taxi. This was one minute less than the average calculated for the 2013 GRH survey. In 2016, more than half (56%) said the taxi arrived within 10 minutes and more than four in five (85%) respondents waited 20 minutes or less.
- Participants appear to be generally quite satisfied with the GRH Program. Fourteen percent of respondents said no improvement is necessary for the GRH program. An additional 55% of participants did not provide any suggestions for improvements.
- The most frequently mentioned improvement was more advertising or more program information, named by 10% of respondents, about the same percentage as mentioned it in 2013 (11%). All other responses were cited by fewer than 5% of respondents and the results were consistent with the results of the 2013 survey.

NOVEMBER 2016

2016 BALTIMORE AND ST. MARY'S COUNTY REGIONAL GUARANTEED RIDE HOME SURVEY COMMUTER CONNECTIONS

This report presents the results of a Guaranteed Ride Home (GRH) survey of 329 commuters who currently participate, or who have participated, in the Baltimore and St. Mary's County regional GRH Program marketed through the Maryland Transit Administration and operated through the Commuter Connections program at the Metropolitan Washington Council of Governments. This program was introduced in October 2010 to eliminate one barrier to using alternative modes - commuters' fear of being without transportation in the case of an emergency. The program provides up to four free rides home per year in a taxi, rental car, public transit, or a combination of these modes, in the event of an unexpected personal emergency or unscheduled overtime.

SURVEY GOALS

The primary goal of the GRH survey is to examine characteristics of GRH Program participants and to examine three key research questions regarding potential travel changes that might be influenced or assisted by the GRH program. Specifically, the survey explores if the GRH program:

- Encourages commuters who drive alone to work to use alternative modes.
- Encourages commuters who use alternative modes to use these modes more days per week.
- Encourages commuters who use alternative modes to use them for a longer period of time.

PROGRAM PARTICIPATION FINDINGS

Several survey results relate to program marketing. These conclusions are summarized below:

- The GRH program has continued to attract participants but also retained many participants. Ten percent of current registrants had been registered for one year or less, but more than half (54 %) had been participating for three or more years.
- Nearly two-thirds (64%) of all respondents were no longer registered for the GRH program (past registrants); however, 45% of respondents whose registration had expired and were listed as past registrants in the database thought they were still registered. Responses to a later question suggest many of these respondents did not realize they needed to re-register each year, so assumed they were still eligible for the program.
- Past registrants left the program for two types of reasons: reasons associated with characteristics of the program and reasons associated with personal circumstances of the registrants. The most frequently mentioned program reasons were that the respondents didn't know they had to re-register (24%) and that they hadn't gotten around to it/forgot, mentioned by 24% of past registrants. These also were common reasons noted in 2013, indicating it is still important to remind registrants that re-registration is required. Six percent were "dissatisfied with the program/had a bad experience."

SURVEY RESULTS

Where relevant, survey results are compared for the following sub-groups of respondents when these data are available.

- Demographics of the sample.
- GRH participation characteristics.
- GRH referral sources and advertising.
- Current commute patterns for GRH participants.
- Commute patterns before and during participation in GRH.
- Influence of GRH on commute choices.

- Use of other, non-GRH services provided by Commuter Connections and other organizations.
- Use of and satisfaction with GRH trips and the GRH Program.

CHARACTERISTICS AND DEMOGRAPHICS OF THE SAMPLE

Home and Work Location

- For the 2016 survey, the majority of respondents live in Maryland (71%).
- Top home locations are Hartford County (19%), Baltimore City (15%), and Baltimore County (10%).
- About 15% live in Virginia.
- A few (1%) live in the District of Columbia.
- The remaining 13% live north of Baltimore in Pennsylvania (6%), New Jersey (6%), or Delaware (1%).
- Essentially all (98%) work in Maryland.

Demographics

- The survey asked respondents four demographic questions: gender, income, age, and ethnic group.
- A higher proportion of GRH participants are male (53%) than female (47%).
- Three quarters of respondents (73%) have household incomes of \$80,000 or more and 14% have incomes of \$160,000 or more.
- Slightly less than half (48%) are between the ages of 35 and 54 years old, 13% are under 35 and four in ten (39%) are 55 years or older.
- Caucasians/Whites and African-Americans represent the two largest ethnic group categories of GRH survey respondents, 61% and 24%, respectively. Hispanics account for about 7% and Asians account for about 6% and of respondents.

GRH PARTICIPATION CHARACTERISTICS

The survey asked numerous questions relating to the times “before” and “while” participating in GRH. For this reason, respondents’ registration status is defined by both their actual status, as defined in the database, and by their perception of their status. This perceived status was used in the survey interview to ensure that respondents were asked questions that would make sense to them. But a substantial portion of respondents defined their registration status differently than was shown in the GRH database.

- 88% of respondents whose database status is current correctly identified their status as current.
- The remaining 12% said they were no longer registered for the program, although their registration is actually current.
- A more significant issue is the 45% of respondents whose registration has expired, but who think they are still registered.
- More than six in ten (62%) of respondents said they were currently registered for GRH. About two in ten said they had been registered, but were not currently participating. The remaining 18% said they were not sure of their GRH status.
- About half of respondents (54%) said they first registered before 2013, 16% registered in 2013, 21% registered in 2014, and 8% registered in 2015. A small percentage said they registered in 2016, but because the GRH survey interviews were conducted in May and June 2016, registration figures for 2016 include only registrants who joined GRH in January 1 through March 15.
- About 4% (17 respondents) said they had participated previously in another GRH program.

- About seven in ten (69%) of all respondents participated or have been participating for two or more years, and 43% had been participating for more than three years. 34% have been registered for one year or less, compared to 25% of past registrants.

GRH REFERRAL SOURCES AND ADVERTISING

- More than one-third (36%) mentioned word of mouth/referrals as their source of information.
- Twenty-one percent said they learned about GRH from their employer or a worksite survey.
- Less than one in ten (7%) cited the Internet, another rideshare or transit organization (7%), or a bus/train sign (5%) as their source.
- Respondents were more likely to have seen or heard GRH advertising if they had registered soon after the program started in late 2010 or 2011, or recently in 2015 or 2016.
- About 45% who registered before 2011 and the same share who registered in 2015-2016 said they had heard or seen advertising, compared to about 38% of respondents who registered between 2011 and 2014.
- The 41% of respondents who said they had seen or heard GRH advertising were asked if they had registered for GRH before they encountered the ads and if the ads had influenced them to register for GRH.
- Six in ten (59%) respondents did not see or hear the ads at all. About two in ten (17%) saw or heard ads but had already registered for GRH. And 4% said they saw or heard the ads before they registered, but said the ads had not influenced them. These groups, in total, represented registrants who were not influenced by the advertising (80%).
- The remaining 20% of respondents said they saw or heard the ads before they registered and that the advertising had encouraged them to register. This indicates the advertising was instrumental in both informing and persuading a substantial portion of registrants to join the program.

CURRENT COMMUTE PATTERNS FOR GRH PARTICIPANTS

- The overwhelming majority (98%) of respondents work full-time, but 10% work a compressed schedule.
- Vanpool was used by 45% of current registrants and bus was used by one-third (28%) of respondents. Four percent primarily carpooled.
- Commuter rail and subway/light rail each are used by about one in ten registrants.
- One percent primarily bike or walk to work and 1% telework.
- Only 1% said they primarily drive alone.
- Past registrants were more likely than current registrants to drive alone (33%). But more than six in ten (63%) said they still used an alternative mode most of the time, even though they were no longer in the GRH Program.
- Almost one-quarter (23%) of past registrants ride a bus, 18% vanpool, 12% ride the subway or light rail, 6% carpool, and 4% bike/walk. Four percent telework as their primary mode.
- The share of current registrants who used carpool/vanpool as their primary mode increased from 38% of all registrants in 2013 to 49% in 2016. The share of current registrants who rode a bus declined slightly, from 33% to 28%. Use of bike/walk also fell, from 7% of respondents in 2013 to 1% in 2016. Use of other modes was similar in 2013 and 2016.
- The average one-way distance for GRH respondents was 35.3 miles. More than six in ten (61%) GRH respondents commute 30 or more miles to work and 43% commute 40 miles or more.
- GRH participants commute, on average, about 56 minutes one way. Nearly six in ten (58%) commute more than 45 minutes and 28% commute more than one hour.

COMMUTE PATTERNS BEFORE AND DURING PARTICIPATION IN GRH

- 39% of respondents primarily drove alone Pre-GRH.
- Primary use of carpool/vanpool use increased from 17% Pre-GRH to 42% During-GRH, bus use rose from 26% to 31%, and the share of respondents using commuter rail as their primary mode grew from 5% to 9%. Use of Metrorail/Light rail/Baltimore Subway and bike/walk remained essentially the same.
- Respondents who were using alternative modes before they joined GRH largely remained in their Pre-GRH modes after they joined GRH. Respondents who previously carpooled/vanpooled (97%) continued to use these modes and 4% shifted to other modes.
- Two thirds (63%) drive alone respondents shifted to carpooling or vanpooling and 28% shifted to transit. About 8% of drive alone commuters said they continued to drive alone as their primary mode.
- The average number of days all GRH participants used alternative modes increased, from 2.8 days per week to 4.5 days per week. But the majority of the increase came from respondents who did not use alternatives at all Pre-GRH.

INFLUENCE OF GRH ON COMMUTE PATTERN DECISIONS

- More than a third (36%) of respondents said they started using a new alternative mode at the time or since they joined GRH. A small number of respondents (3%) increased the number of days they use alternative modes. The largest share of respondents (58%) said they maintained but did not increase use of an alternative mode that they were using before GRH.
- Eight in ten (78%) of the respondents who drove alone Pre-GRH and started using alternative modes During-GRH said GRH was important to the decision to make the change. More than three in ten (36%) said GRH was “somewhat important” to the decision. The remaining 22% said GRH was “not at all important.”
- Two-thirds of respondents who maintained alternative mode use said GRH was “very important” (54%) or “somewhat important” (25%) to their decision.
- Nine in ten respondents who were riding a bus pre-GRH said GRH had been important to their decision to continue using this mode and 68% said it had been very important. The service was slightly less important for respondents who carpooled/vanpooled and those who commuted by train; 74% of carpools/vanpools and 69% of train riders rated GRH as important.
- Among participants who started using an alternative mode, 82% of current registrants rated GRH as either important or very important. The share of past registrants who gave these high ratings was much lower (59%), but the sample of past registrants who started a new mode was small (17 respondents). Less difference was noted between current and past registrants who continued using an alternative; 85% of continued registrants said it was important, compared with 71% of past registrants.
- One-third of respondents who started using alternative modes said they were not likely (11%) or only somewhat likely (25%) to have made the change if GRH had not been available. The remaining 64% said they were very likely to have made the change even if they did not have access to GRH; in other words, GRH had little to no influence on these respondents.
- GRH seemed to be less valuable to registrants who were using alternative modes and did not make any changes during GRH (maintained alternative mode); 81% said they were very likely to have continued in this mode if GRH had not been available. Three percent said they were not at all likely to have continued that mode and 16% were somewhat likely to have continued that mode without GRH.
- Respondents also were asked if any other factors or circumstances, other than GRH and other than the assistance or benefits, had been important to their mode choice decision. Six in ten

(60%) said no other factors or circumstances influenced their decision, but 40% mentioned one or more other factors. The most common factors were a desire to save money (15 %) or avoid driving (12%). Smaller shares of respondents noted other motivations.

USE OF AND SATISFACTION WITH GRH

- Twenty-one percent of respondents said they had taken a GRH trip; higher than the 10% reported in 2013. Current registrants (24%) used GRH trips at a significantly higher rate than did past registrants (16%).
- Vanpoolers were most likely to have used a GRH trip; 26% of respondents who vanpooled while they were registered for GRH had taken a GRH trip. About two in ten bus riders took a trip. Commuter rail riders and subway/light rail riders had the lowest usage; only 14% and 13% of these respondents, respectively, had taken a GRH trip.
- GRH use was not substantially different for respondents who traveled different distances to work. About one-quarter of respondents who traveled 30 miles or less to work had taken a GRH trip. By contrast, among respondents who traveled 30 or more miles one-way, 19% had used a GRH trip.
- Sixty-two percent of all GRH trips were taken to address an illness: respondent (29%), another family member (26%), a child (5%), or a carpool partner (2%). Unscheduled overtime (27%) and other personal emergency (5%) were the two other common reasons.
- The overwhelming majority (88%) said they were satisfied.
- Respondents waited an average of 28 minutes for a taxi, about the same as the 27-minute average in 2013. In 2016, about half (49%) said the taxi arrived within 20 minutes, but one-third of respondents waited more than 30 minutes.
- Participants appear to be generally quite satisfied with the GRH Program. Ten percent of respondents said no improvement is necessary for the GRH program. An additional 49% of participants did not provide any suggestions for improvements.
- The most frequently mentioned improvement is more advertising or more program information, named by 16% of respondents.

MAY 2017
2016 BIKE TO WORK SURVEY
COMMUTER CONNECTIONS

PURPOSE OF THE SURVEY

This update presents results of a survey of commuters who participated in the 2016 regional Bike-to-Work Day event, held in May 2016. This survey was conducted by the Metropolitan Washington Council of Governments (MWCOG) to identify the experience of the participants with the Bike-to-Work Day (BTWD) event and to assess participants' use of bike for commute travel before and after the event. The results of the survey described in this summary will be used in the July 2014 - June 2017 Transportation Emission Reduction Measure (TERM) evaluation of the Mass Marketing TERM.

SURVEY METHODOLOGY

The survey presented in this report was conducted by MWCOG in November 2016, with assistance from LDA Consulting and CIC Research, Inc. The questionnaire was based on that used in the 2013 BTWD survey, with a few minor modifications to update the survey for 2016. MWCOG emailed copies of the survey to 17,310 commuters who participated in the event. All event participants registered through the Washington Area Bicyclist Association's web site, thus this email list included all event participants. Participants were asked to complete the questionnaire and return it to MWCOG by e-mail. A copy of the questionnaire is provided in Appendix A. MWCOG received 3,537 completed questionnaires, for a response rate of 21%.

HIGHLIGHTS OF FINDINGS

- 2016 was the first BTWD event for 23% of participants.
- Most common BTWD information sources were Internet (34%) and referrals (21%).
- 95% of respondents said they were very likely to participate in another BTWD event in the future and 89% of respondents said they were very likely to recommend BTWD events.
- 86% of participants rode to work at least occasionally before BTWD; 91% rode to work in the summer after BTWD, 87% were still riding during the late fall (November 2016).
- 8% of participants started riding to work after their first BTWD event, these were new riders, and 20% of participants increased the number of days they ride to work.
- Respondents who rode to work before BTWD rode an average of 2.6 days per week. The average frequency increased during the summer after BTWD to 2.9 days/week. In late fall, the average frequency dropped back to 2.7 days per week.

DEMOGRAPHICS OF PARTICIPANTS

- About four in ten (42%) respondents live in Virginia, 32% live in the District of Columbia, and 26% live in Maryland.
- More than half (52%) of respondents work in the District of Columbia, 30% work in Virginia, and 18% work in Maryland.
- Two thirds (64%) of respondents are male and 36% are female.
- 77% have household incomes of \$80,000 or more and 67% have income of \$100,000 or more.
- 28% of respondents are younger than 35 years old, 20% are between 35 and 44 years old, 26% are between 45 and 54 years old, and 26% are 55 years old and over.
- 85% of participants are of White/Caucasian racial/ethnic background.

EMPLOYMENT CHARACTERISTICS

- Two-thirds (66%) worked for firms with more than 100 employees; 32% worked for employers that employed 1,000 or more employees.
- About one-third (35%) of respondents worked for a Federal government agency and another 32% were employed by a private sector employer. Two in ten (21%) respondents worked for non-profit organizations and 10% worked for state or local government agencies. Two percent said they were self-employed.

PAST PARTICIPATION IN BTWD

- About a quarter (23%) of respondents said this was their first BTWD event. This was less than the results of the 2016 BTWD survey, in which 26% reported that year as their first event. The remaining 77% said they had participated in a BTWD before 2013.
- More than six in ten (66%) of the respondents said they also participated in the 2015 BTWD and 54% participated in 2014. More than four in ten (44%) participated in the 2013 event and three in ten (36%) participated in 2012.

BIKE COMMUTING BEFORE PARTICIPATING IN BTWD

- Eighty-six percent of respondents rode to work at least occasionally before they participated in a BTWD event. More than six in ten (62%) were frequent riders, riding at least one day per week, 12% rode one to three days per month, and 12% rode less than one day per month. The remaining 14% of respondents said they did not commute by bike before they participated in a BTWD event.
- First-time BTWD participants were less likely to be riders before the event than were past participants; only 78% of first-time participants rode to work before BTWD, compared with 89% of past participants.

BIKE COMMUTING AFTER PARTICIPATING IN BTWD

- Between May and September 2016, after the 2016 BTWD event, 91% of respondents biked to work at least occasionally, an increase of 5% compared to the 86% who were biking before BTWD. About seven in ten (72%) rode at least one day per week in the summer months, 10 percentage points above the 62% who rode this frequently before BTWD.
- Two in ten (19%) rode occasionally, but less than once day per week. The remaining 9% of respondents said they did not ride at all during the summer.
- Twenty-eight percent of respondents either started biking or increased biking. 8% of respondents were new riders; they did not commute by bike before their first BTWD event. 20% biked to work before, but started biking more often after BTWD.
- About six in ten (59%) of respondents said they rode bikes to work before BTWD and continued to bike the same number of days per week after the event. 7% of respondents previously rode to work but decreased their riding during the summer of 2016. The remaining 6% said they did not bike to work before BTWD and still did not bike to work after the event.

BIKE COMMUTE FREQUENCY BEFORE BTWD AND DURING SUMMER 2016

- Respondents who biked to work before the BTWD event biked an average of 2.6 days per week. Respondents who biked to work during summer 2016 biked an average of 2.9 days per week, an increase of 0.3 days per week. The increase in average frequency between the before BTWD period and the summer of 2016 was generated by a combination of frequency changes: new riders starting to bike, previous riders increasing their biking frequency, offset by previous riders who decreased their riding frequency after BTWD.

- Respondents who were new riders rode less frequently after BTWD (1.4 days per week) than did all riders (2.9 days per week). But their summer frequency represented an increase of 1.4 days per week from not riding at all.
- Respondents who were riding before BTWD, and increased their riding, rode an average of 3.0 days per week during the summer, an increase of 1.8 days per week over their riding frequency of 1.2 days before BTWD.
- Some respondents decreased or stopped riding after BTWD. Their average frequency decreased from 2.2 biking days per week to 0.7 days, a drop of 1.5 days per week.
- Finally, a large share of respondents who rode to work before BTWD continued riding during the summer at the same frequency. These respondents had the highest riding frequency during both the before BTWD period (3.1 days) and during the summer after BTWD (3.1 days).

BIKE COMMUTING DURING FALL 2016 AFTER PARTICIPATING IN BTWD

- Eighty-seven percent of all respondents were still biking to work at least occasionally during the late fall (early-mid November) after the 2016 BTWD event. This was a drop-off from summer and early fall, when 91% of respondents were riding, but was essentially equal to the percentage (86%) who biked to work before BTWD.
- More than six in ten (64%) of respondents were regular riders, biking to work at least one day per week.
- About one in ten (11%) said they rode one to three days per week and 12% rode less than once per month. The remaining 13% said they did not ride to work at all in the fall.
- Not surprisingly, the average biking frequency fell from the summertime frequency of 2.9 days per week to 2.7 days per week during the late fall.
- Respondents who were new riders after BTWD rode less often during the late fall (1.4 days per week) than did respondents who had been riding before BTWD (2.7 days per week).

COMMUTE MODE ON NON-BIKE DAYS

- All respondents who biked after BTWD, even if only occasionally, were asked how they traveled to work on days they did not bike to work. 40% said they drive alone to work on days they don't bicycle. This is was the same as the 40% who used this mode in 2013.
- The remaining respondents (60%) said they use another commute alternative on non-bike days. 43% used a bus or train, 8% walk or run, 4% carpool or vanpool, and 5% primarily work at home (telecommute).
- Two in ten (21%) respondents said they had used Capital Bikeshare during the past year to commute to or from work. This was a significant increase over the 15% who reported using bikeshare to commute in 2013.

TRAVEL DISTANCE

- Respondents traveled an average of 8.6 miles one-way to work, a considerably shorter distance than the 17.3-mile average one-way distance of all commuters in the Washington Metropolitan region.
- Three in ten (34%) of respondents traveled fewer than four miles to work and 74% traveled fewer than 10 miles one-way.
- 26% of respondents commuted more than 10 miles to work.

USE OF BIKE FOR NON-COMMUTE TRIPS AFTER PARTICIPATING IN BTWD

- Although the primary focus of the survey was on commuting patterns, respondents also were asked about their use of biking for non-work trips. First, they were asked how many times in the

past month they had ridden a bicycle for a non-work trip, such as an errand or shopping trip. Then they were asked how this frequency compared with their use of bike for non-work trips before their first BTWD.

- About eight in ten made at least one non-commute trips by bicycle in the past month.
- Forty-six percent rode a bicycle for a non-commute trip between one and five times in the past month and 33% made at least six non-commute bicycle trips.
- Two in ten (21%) did not ride a bike for a non-commute trip at all during the past month.
- Twenty percent of respondents said they increased how often they biked for non-work trips after BTWD. Five percent rode less often for non-commute trips after BTW Day.
- Most (75%) of respondents did not make any changes in their use of biking for non-commute trips.

COMMUTE ASSISTANCE SERVICES

- A sizeable majority (83%) of respondents said their employers offered some type of commute assistance information, services, or facilities for employees who biked to work.
- The most common service was bike racks, offered by 64% of employers. Twenty-four percent said the employer offered a secure form of bicycle storage such as lockers or a locked bicycle cage or permitted employees to store their bicycles in their offices or workstations.
- A large share of respondents also noted that their employers offered personal convenience services including showers (63%) and personal lockers or a locker room (35%).
- Eleven percent of respondents said their employers offered bike route information and 15% percent said the employer provided a financial incentive for employees who bike.
- The percentages of employers who offered each service was essentially the same as was observed in the 2013 BTW Day survey, with one notable exception. In 2016, 8% of respondents reported having access to a free or dis-counted Capital Bikeshare membership. While this was still a small percentage overall, it was double the 4% of employees who had access to this service in 2013.
- Respondents who did not ride during the summer after BTWD or who rode very infrequently (less than one time per month) were less likely to report that their employers offered bicycle support strategies. Only 75% of non-riders/infrequent riders said their employers offered bike racks, compared with 86% of respondents who rode at least one day per month. Non-riders and infrequent riders also were less likely than were more frequent riders to report access to bike racks (55% infrequent riders vs. 68% for frequent riders), personal lockers (28% vs. 38%), showers (54% vs. 67%), and cash or financial benefits (12% vs. 17%).

RESPONDENTS' BTWD EVENT EXPERIENCE

- The 2016 survey added several new questions to explore riders' BTWD experience. These questions asked what was respondents' favorite part of the 2016 event experience, how likely they would be to register for a future event, and how likely they were to recommend Bike-to-Work Day to a friend.
- Many respondents mentioned a connection to the bicycling community or enjoyment of bicycling as their favorite part of the event. Nearly three in ten (29%) said they most enjoyed sharing the ride to work with other cyclists. Another 16% mentioned having more cyclists on the road. Seven percent said they enjoyed riding to work and 4% said their favorite part of the event was that it celebrated or promoted cycling. Two percent said they had a personal feeling of accomplishment and 2% mentioned that the weather was beautiful.
- A large share of respondents also mentioned activities or tangible benefits that they received from participating. Twenty-eight percent of respondents cited the excitement and activities at

pit stops as their favorite part of the event. One in ten mentioned getting free food/snacks (11%), receiving a T-shirt (11%), or receiving other (unspecified) free items. Two percent mentioned receiving a bike tune-up and 2% said getting a bike map or information on bike commuting as their favorite part.

- The vast majority of respondents said they were likely to participate in another Bike-to-Work Day event in the future; 95% said they were very likely and 4% were somewhat likely to participate again. And nearly all respondents said they were likely to recommend Bike-to-Work Day events to others; 89% were very likely and 10% were somewhat likely.

SUGGESTIONS TO IMPROVE BIKE-TO-WORK DAY

- Respondents were given an opportunity to offer suggestions for how BTWD could be improved. More than 700 respondents offered open-ended suggestions. About one-quarter of those who wrote comments gave compliments to the organizers. Other common suggestions are grouped into 4 broad categories: pit stops, incentives, ride assistance, and general event/promotion.

Pit stops	Response Count
• Pit stops earlier/later hours, off-peak hours	57
• More pit stops, stops at specific locations	34
• Afternoon/evening pit stops	22
• More “festivities,” games, challenges	17
• Clearly define pit stop locations	12
• More signage at pit stops/routes	11
• Other pit stop suggestions	29
Incentives	
• Improve/replace t-shirts with other items	47
• More food, healthy food, equal food at all stops	36
• Smaller t-shirts/more t-shirts, send t-shirts before rides	38
• More prizes, bigger prizes, more frequent raffles	32
• Bike tune-ups/repairs, bike gear	15
• Other prize/give-away suggestions	15
Ride Assistance	
• Provide safe riding tips, routes, safety suggestions	60
• Better bike infrastructure, enforcement of traffic laws	51
• Organize/publicize group rides/bike buddies	21
General Event/Promotion	
• Hold events more often, bike week, bike month	75
• Advertise more, marketing suggestions	34
• More involvement of employers, public agencies/officials	25
• Outreach to non-riders, kids, non-traditional riders	23

JUNE 2017
STATE OF THE COMMUTE SURVEY EXECUTIVE SUMMARY
COMMUTER CONNECTIONS

The 2016 State of the Commute (SOC) Survey serves several purposes, first, it documents trends in commuting behavior, such as commute mode shares and distance traveled, and attitudes about specific commuter transportation services available in the region. Second, the SOC survey collects data needed to estimate the impacts of several Commuter Connections' TERMS that might influence the population-at-large. Third, the survey examines how other commute alternative programs and marketing efforts might influence commuting behavior in the region. Finally, the survey explores commuters' opinions about and interest in current transportation initiatives.

The SOC survey is also used to help estimate the impacts of some Transportation Emission Reduction Measures (TERMs), such as Commuter Connections' Telecommute Assistance and Mass Marketing, two TERMS that might influence the population-at-large as well as commuters who directly participate in Commuter Connections' programs. By asking commuters about sources of information on alternative modes and their reasons for choosing alternative modes for commuting, the survey examines how other commute alternative programs and marketing efforts might influence commuting behavior in the region.

The 2013 SOC questionnaire was based on the questionnaire used in 2010, with modifications and additions as needed. Wherever possible, the study team retained the 2010 SOC questions to allow trend analysis, but changes were made when the revisions were expected to add substantially to the accuracy of the data.

The 2016 SOC survey was conducted in two components, a telephone survey, consistent with the method used for SOC surveys between 2001 and 2013, and an Internet survey, which will provided an Internet baseline to facilitate a future transition from an all-telephone survey method to the lower-cost Internet approach. Both components were conducted with employed adult residents. A total of 5,903 interviews were completed for the survey, 5,029 from the telephone survey and 874 through the Internet survey.

Key highlights of the data collected from the 2016 SOC data include:

- Demographics
- Commute patterns
- Commute changes and commute satisfaction
- Telework
- Availability of and attitudes toward transportation options
- Quality of life and transportation satisfaction
- Awareness of commute advertising and services
- Awareness of commute assistance resources
- Commuter assistance services provided by employers

DEMOGRAPHICS

- Almost half of respondents (46%) are between 35 and 54 years of age. About 34% are younger than 35 and 20% are older than 55 years old.

- 45% of respondents are white/Caucasian, 23% are African-American, 14% are Hispanic/Latino, and 13% are Asian/Pacific Islander.
- Most respondents are female (51%), essentially the same percentage as in the 2013, 2010, 2007, 2004, and 2001 SOC surveys.
- More than seven in ten (75%) reported household incomes of \$80,000 or greater and 52% have incomes of \$120,000 or more.
- 44% of respondents live in Maryland and Virginia, the remaining 12% live in the District of Columbia.
- 39% of respondents work in Virginia, 31% work in the District of Columbia, and 26% work in Maryland.

COMMUTE PATTERNS

The share of commute trips made by driving alone fell 10 percentage points between 2004 and 2016.

Use of transit and telework continued to increase.

- Commuters made about six in ten (61.0%) of their weekly commute trips by driving alone. Drive alone continued to be the most popular commute mode in the Washington metropolitan region, but the drive alone mode share continued the long-term decline from 71.4% in 2004 to 61.0% in 2016. This represented a drop of 10 percentage points over the 12-year period.
- Alternative modes accounted for an increasing share of commute trips in 2016. Transit was used for two in ten (20.1%) weekly commute trips, about the same as in 2010 and three percentage points above the 16.8% mode share observed in the 2004 SOC survey. The 2016 bike/walk mode share of 3.3% was slightly above the share from previous years. The 5.4% carpool/vanpool mode share represented a continued decline from the peak 7.1% mode share estimated in the 2007 survey.
- Use of telework/compressed work schedules continued the upward trend observed since the 2004 SOC survey; the share of weekday trips eliminated by these modes has nearly tripled over the past 12 years, from 3.6% of weekday commute trips to 10.2% in 2016.
- Commuters exhibited generally consistent mode patterns; 67% used the same commute mode all of their work days and 81% used the same mode four or five days. More than one-third (37%) of regional workers used an alternative mode (carpool, vanpool, transit, bike/walk) as their primary mode, that is, the mode they used most days in a typical week. An additional 4% of commuters used an alternative mode as a secondary mode (one or two days per week).
- About three-quarters of the 20.1% transit mode share was in a train (14.3% Metrorail and 0.9% commuter rail). The remaining one-quarter (4.9%) of transit trips were made by bus. Among respondents who carpooled or vanpooled, regular carpooling dominated. Three-quarters of carpool/vanpool trips were in regular carpools (4.1% of total 5.4% carpool/vanpool use). Casual carpools/slugs accounted for two in ten carpool/vanpool trips and one in ten trips in this mode group was made by vanpool.
- Four in ten (40%) commuters who used alternative modes to get to work walked to the transit station/stop or location where they met a carpool/vanpool partner, 12% took transit, and 1% bicycled to the meeting point. One-quarter (26%) drove alone and parked their car during the day.

Alternative mode use was much higher for respondents who lived and/or worked in the central portion of the region than for those who lived/worked outside the regional core.

- Only four in ten (41%) commuters who lived in the Inner Core area (Alexandria, Arlington, and District of Columbia) drove alone. This was much lower than the 65% drive alone rate for the Middle Ring (Fairfax, Montgomery, and Prince George's counties) and the 75% rate for the

Outer Ring (Calvert, Charles, Frederick, Loudoun, and Prince William counties). The mode pattern for employment area was similar; fewer than half (44%) of commuters who worked in the Inner Core area drove alone, dramatically lower than the drive alone rates for Middle Ring workers (75%) and Outer Ring workers (80%).

The average commute distance increased; commute time also has grown marginally, but most commuters build extra time in their schedules to account for traffic, roadway incidents, and transit service disruptions.

- The 2016 average commute distance was 17.3 miles, an increase over the 16.0 to 16.3 mile averages measured in previous SOC surveys. The average commute time also lengthened; the 39 minute average time in 2016 was five minutes longer than the 34 minute average observed 12 years earlier in the 2004 SOC survey.
- Almost eight in ten (81%) commuters added extra time to their commute to account for travel time variability due to traffic, roadway incidents, and/or transit service disruptions. On average, respondents added 12 extra minutes to their commute time. When compared to the total typical travel time of 39 minutes, this means that about 30% of the average commute time was related to variability of travel time.

COMMUTE CHANGES, COMMUTE EASE, AND COMMUTE SATISFACTION

While many commuters were long-time users of their mode, commuters continued to shift among modes.

- Commuters who drove alone to work had used this mode an average of 10.3 years and nearly half (45%) had been driving alone for 10 years or more. Only 22% started driving alone within the past three years. By contrast, 33% of train riders, 35% of bike/walk commuters, 53% of bus riders, and 59% of carpoolers started using these modes within the past three years.
- About one-third (37%) of commuters who started using a new alternative mode within the past three years previously drove alone to work. Twenty percent of alternative mode users previously rode a train and 9% previously used a bus. Eleven percent carpoled or vanpoled before switching to their current alternative mode and 7% previously rode a bicycle or walked. About two in ten did not have a previous mode to report because they were not working in the Washington region then or had only ever used their current mode.
- Commuters who shifted to alternative modes did so primarily to save money (14%) or save time (12%) or because they had a change in their personal circumstances, such as changing jobs or work hours (14%), losing access to a personal vehicle (11%), or changing job locations (8%).

Commuting got more difficult in the past year for a sizeable share of commuters. And many respondents considered commuting factors when making job or home location decisions and took actions to improve their commutes.

- About two in ten (16%) respondents said their commute was easier than one year ago, but 22% said their commute was more difficult. Respondents who traveled more than 20 minutes to work were particularly likely to report a more difficult commute than last year. Respondents who had made a home or work location change in the past year were more likely to report an easier commute (38%) than were commuters who did not make a move (10%). This suggests a move could have played a role in improving the commute.
- One-third (35%) of respondents who moved said they considered a commuting factor, such as the ease or cost of commuting to the new location, when making their location decision. Nearly four in

ten (39%) said commute ease was more important than other factors or was the only factor in their decisions.

- More than four in ten (43%) respondents who made a home or work location change considered how close their new location would be to transportation services such as Park & Ride lots, HOV/Express lanes, protected bike lanes, and transit stations/stops. Respondents for whom commute factors were most important also were more likely to have explored access to new transportation services and 63% of respondents who said commuting was the only factor they considered said they had explored what services would be available at the new location.
- Some respondents were more likely than were others to consider transportation access options: 1) respondents who lived or worked in the Inner Core, 2) respondents who used an alternative mode to commute, 3) respondents who moved from outside the Washington region, 4) respondents with limited access to a personal vehicle, and 5) respondents who were younger than 35 years old.

Six in ten commuters were satisfied with their current commute, but satisfaction declined since 2013 and not all commuters were equally satisfied.

- Six in ten (58%) commuters rated their commute satisfaction as a 4 or 5 on a 5-point scale, where 5 meant very satisfied. But 19% said they were not satisfied (rating of 1 or 2). Commute satisfaction in 2016 also was lower than in 2013, when 64% of respondents were satisfied with their trip to work.
- Metrorail riders and drive alone commuters reported the lowest satisfaction in 2016; 48% of commuters who rode Metrorail to work and 57% of commuters who drove alone said they were satisfied compared with 70% of commuter rail riders, 66% of carpoolers/vanpoolers and bus riders. Commute satisfaction by mode was generally similar in 2016 to that in 2013, with one notable exception – train riders were much less satisfied in 2016. In 2016, 48% of Metrorail riders gave a 4 or 5 rating for their commute, 19 percentage points lower than the 67% who were satisfied in 2013. And 70% of commuter rail riders were satisfied in 2016, a drop of 18 percentage points from the 88% who were satisfied in 2013.
- Commute satisfaction also differed by where the respondent lived and worked. Respondents who lived in the Inner Core were more satisfied (64% satisfied) than were respondents who lived in the Middle Ring (58%) or Outer Ring (53%). But respondents who worked in the Outer Ring were more satisfied (69%) than were respondents who worked in the Middle Ring (62%) or Inner Core (51%).
- Commute satisfaction declined dramatically as commute length increased. Nearly all (97%) respondents who commuted 10 minutes or less gave a 4 or 5 rating for satisfaction. When the commute was between 21 to 30 minutes, satisfaction dropped to 66% and when travel time exceeded 60 minutes, only 22% rated their commute a 4 or 5.
- Respondents' commute satisfaction was influenced by the ease of the commute. Three quarters (73%) of respondents who said they had an easier commute than last year and 65% who said their commute had not changed are satisfied with their commute, compared with only 31% who said their commute had become more difficult.

TELEWORK

The percentage of workers who telework grew between 2013 and 2016, continuing a steady upward trend observed since 2004. But even with this growth, potential exists for additional teleworking.

- Nearly one-third (32%) of regional commuters said they teleworked at least occasionally. "Commuters" were defined as workers who were not self-employed and would otherwise travel to a worksite outside their homes if not teleworking. These teleworkers represented 887,000 regional workers.
- The percentage of regional telework has more than doubled since 2004 and telework incidence grew in nearly every demographic and occupational segment in which telework was feasible.

- The 2016 survey showed that an additional 18% of all commuters who did not telework “could and would” telework if given the opportunity. These respondents said their job responsibilities would allow them to telework and they would like to telework. Of these interested respondents, about two-thirds would like to telework “occasionally;” the remaining one-third would like to telework “regularly.” These potential teleworkers totaled 518,000 regional workers.
- The percentage of commuters who said their jobs were incompatible with telework dropped, from 65% in 2004 to 41% in 2016. Because it seems unlikely that the regional composition of jobs changed substantially, these results suggest a shift in commuters’ perception of their ability to perform work away from their primary work location. This could be related to increasing availability of communication and computer technology or perhaps from a broader definition of what work was “telework-compatible.”

The share of respondents who self-defined as “teleworkers” likely underrepresented the true share of telework activity in the region because 13% of regional commuters worked at home occasionally, but did not consider themselves teleworkers.

- Half of respondents who said they were not “teleworkers” but who had telework-appropriate jobs said they had worked at home all day on a regular work day at least once in the past year. These respondents represented 367,000 commuters or about 13% of all commuters in the region. When added to the 32% of commuters who self-defined as teleworkers, the total percentage of commuters who telework/work at home at least occasionally rises to 45%.
- The average work at home frequency of these “non-teleworkers” was low, about seven days per year, or 0.14 days per week. By contrast, self-defined teleworkers teleworked an average of 1.38 days per week.
- On a typical work day, approximately 255,000 regional workers telework/work at home. About 4% of the telework/work at home days would be from commuters who do not consider themselves teleworkers occasionally working at home.
- The “typical day” telework count likely underestimates the true traffic-reduction benefit because commuters telework/work at home more often on days when traffic is likely to be heavier or more difficult than normal. Eight in ten (80%) “non-teleworkers” who occasionally worked at home and 91% of teleworkers said they were somewhat likely or very likely to work at home on a day when traffic in the region is likely to be disrupted by a weather event or major/special event in the region. So teleworking/work at home likely provides a higher than average benefit for regional traffic conditions on days when traffic is likely to be at its worst.

The percentage of teleworkers who worked under “formal” telework arrangements exceeded the percentage who teleworked under informal arrangements with supervisors.

- About 30% of all respondents (both teleworkers and non-teleworkers) said their employer had a formal telework program and 23% said telework was permitted under informal arrangements between a supervisor and employee. Formal programs were most common at Federal agencies and among respondents who worked for large employers.
- More than half (56%) of teleworkers teleworked under a formal arrangement. This represented a significant shift from 2004, when only 32% of teleworkers had a formal agreement. This appears to signal a greater acceptance of formal telework.

Teleworkers got information on telework from a variety of sources.

- The largest source of telework information, by far, was “special program at work/employer,” named by 73% of respondents. This percentage has been steady since the 2010 SOC survey, but was

considerably higher than in 2007, when only 55% of teleworkers cited their employer as the source of information.

- Nine percent of teleworkers said they received telework information directly from Commuter Connections or MWCOG, about the same percentage as mentioned Commuter Connections/MWCOG in 2013 and higher than in 2010 (6%) and 2007 (7%).

AVAILABILITY OF AND ATTITUDES TOWARD TRANSPORTATION OPTIONS

Most respondents report access to some transit service in their home area.

- Respondents were asked if bus and/or train service operated in the area where they lived and where they worked. More than eight in ten (89%) said that some transit service served their home area. A similar percentage (86%) said service operated where they worked.
- Half (51%) of respondents said they lived less than ½ mile from a bus stop and 66% said they lived less than one mile away. Train station access was less convenient; only 17% lived less than one mile from a train station. The average distances were 1.5 miles to the nearest bus stop and 6.1 miles to the nearest train station.
- Respondents who lived in the Inner Core area said the closest bus stop was an average of 0.4 miles away and a train station was 1.7 miles away. Eighty-four percent of commuters in this area lived less than ½ mile from a bus stop.

One in ten respondents region-wide had used an HOV lane for their trip to work and a similar share had used an Express lane. Respondents who used HOV/Express lanes saved an average of 20 minutes on their commute and 48% said availability of the lanes influenced their mode choice.

- Three in ten (30%) respondents said there was an HOV lane along their route to work. One-third of these commuters had used the lanes. This equated to about 9% of commuters region-wide. Fewer respondents (15%) had access to Express lanes, but more than half of respondents who had the lanes available had used them, representing 8% of all commuters region-wide.
- Respondents who used the HOV/Express lane for commuting estimated that they saved an average of 20 minutes for each one-way trip when they used the lanes. HOV/Express lane users who lived in the outer jurisdictions of the region saved an average of 29 minutes one-way.
- Nearly half (48%) of respondents who used HOV/Express lanes for commuting said availability of the lanes influenced their mode choice decision. The role of the lanes on mode choice is borne out by a comparison of rideshare mode use with and without HOV/Express lanes. The carpool/vanpool mode share was 9% for commuters who had access to an HOV/Express lane for commuting, compared with 5% for commuters who did not have access.

QUALITY OF LIFE AND TRANSPORTATION SATISFACTION

Two-thirds of respondents gave a high rating for quality of life in the Washington region. They were less satisfied with the region's transportation system and transportation satisfaction had declined since 2013.

- Sixty-four percent of respondents gave a high quality of life (QOL) rating; 20% gave a rating of 5 (Excellent) and 44% rated QOL as a 4. But only 36% of respondents reported being satisfied with the regional transportation system (rating of 4 or 5). Three in ten said they were dissatisfied (rating of 1 or 2). Commuters also were slightly less satisfied with regional transportation than they were in either 2013, when 44% of commuters were satisfied, or in 2010, when 40% of regional commuters rated their transportation satisfaction as a 4 or 5.
- Respondents' ratings for quality of life appeared somewhat related to their satisfaction with transportation, with QOL ratings increasing with increasing satisfaction with transportation. Three-

quarters (75%) of respondents who were satisfied with transportation rated QOL a 4 or 5, compared to 49% of respondents who were not satisfied with transportation.

Transportation satisfaction appeared to be related to numerous factors, including home and work locations, commute mode and distance, and proximity to public transit.

- Respondents who lived in the Inner Core gave a higher rating for transportation satisfaction than did other respondents; 44% of Inner Core respondents rated transportation satisfaction as a 4 or 5, compared with 36% of Middle Ring respondents and 28% of Outer Ring respondents.
- Respondents who drove alone and those who rode transit gave lower ratings for transportation satisfaction than did carpoolers/vanpoolers and bike/walk commuters. Only 34% of drive alone commuters, 38% of train riders, and 41% of bus riders were satisfied, compared with 47% of carpoolers and 61% of commuters who biked/walked to work.
- Transit riders were substantially less satisfied in 2016 than they had been in 2013. In 2013, 58% of train riders and the same share of bus riders had been satisfied. Satisfaction of drive alone commuters also fell, but the drop was smaller, from 41% to 34%. Respondents who carpoled/vanpoled and those who biked/walked were equally satisfied in 2016 as they had been in 2013.
- Respondents' satisfaction with transportation appeared linked to their satisfaction with their commute to work. Half (50%) of respondents who were satisfied with their trip to work also were satisfied with the regional transportation system. Conversely, only 12% of respondents who were dissatisfied with their commute were satisfied with transportation. The length of the commute also was a factor, with transportation satisfaction declining as commute length increased; 48% of respondents who commuted 10 minutes or less were satisfied, compared with 20% of respondents who traveled more than an hour to work.
- And respondents who lived closer to transit gave higher marks for transportation satisfaction than did respondents who lived farther away. About four in ten respondents who lived less than one mile from a bus stop were satisfied with transportation, compared with about three in ten respondents who lived between 1.0 and 2.9 miles away, and about one-quarter of respondents who lived 3.0 or more miles away.

Commuters recognized both personal and societal benefits of alternative mode use and commuters who used alternative modes made productive use of their travel time.

- When asked what personal benefits alternative modes users received from using alternative modes, 80% of respondents named at least one benefit. Nearly six in ten (59%) respondents said that use of alternative modes could reduce traffic congestion.
- Respondents noted three benefits related to environmental concerns. Almost four in ten (36%) said commuters who use alternative modes help the environment, indicating some recognition that use of alternative modes has an impact of environmental quality. Twelve percent reported reducing greenhouse gases as a benefit and 9% said saving energy, benefits related to sustainability.
- Nine in ten (89%) respondents who used alternative modes for their commute said they received personal benefits from using these modes. Saving money topped the list; 33% of alternative mode users mentioned this benefit. Respondents also cited benefits that had a connection to quality of life. Two in ten (22%) respondents said use of alternative modes helped them avoid stress or relax while commuting and 18% said they could use their travel time productively when they used an alternative mode. About one in ten said they got exercise or health benefits (13%) or arrived at work on time (10%).
- More than half of respondents who carpoled, vanpoled, or rode transit to work said they performed work-related tasks during the commute; 37% performed work-related tasks "most days"

and 15% performed work-related tasks “some days.” Conducting work-related business during the commute was more common among transit riders; 57% of train riders and 59% of bus riders said they performed work-related tasks during their commute.

AWARENESS OF COMMUTE ADVERTISING

General awareness of commute information advertising remained high; about seven in ten could cite a specific message.

- More than half (54%) of all respondents said they had seen, heard, or read advertising for commuting in the six months prior to the survey and 67% of these respondents could cite a specific advertising message. Both the general recall and specific message recall were approximately the same as were observed in the 2013 survey (55% general recall and 67% message recall).
- Half (49%) of respondents who had heard ads could name the sponsor. WMATA was named by 23% as the advertising sponsor. Commuter Connections was named by 13%, about the same percentage as named Commuter Connections in 2013 (12%).

Commute advertising appears to influence commuters’ consideration of travel options.

- One-quarter (25%) of respondents who saw or heard advertising said they were more likely to consider ridesharing or public transportation after seeing or hearing the advertising. This was essentially the same rate as was noted in the 2013 (25%) and 2010 SOC surveys.
- Respondents who were using alternative modes were more likely to be influenced by the advertising. About 52% of bus riders, 28% of train riders, and 27% of carpoolers/vanpoolers said they were more likely to consider using an alternative after hearing the ads, compared with only 20% of respondents who drove alone. There did not seem to be any relationship with commute distance or time; commuters who traveled short distances and those who traveled long distances to work were about equally likely to say they were more willing to use alternative modes after hearing the ads.
- About 9% of respondents who recalled an advertising message said they took some action after hearing the ad to try to change their commute. About 3% sought more information, but 3% who recalled ad messages tried or started using a new alternative mode. While these respondents equal only about one percent of the total commuter population, they represent more than 30,000 commuters. Half (48%) of the respondents who started using a new alternative mode drove alone before making the switch. The other half had been using a different alternative mode.

AWARENESS OF COMMUTE ASSISTANCE RESOURCES

About half of regional commuters were aware of commute information and assistance resources.

- About half (53%) of respondents said they knew of a telephone number or web site they could use to obtain commute information. Awareness of regional commute information resources fell from the 66% rate measured in the 2010 SOC survey, but the current level of 53% awareness is still higher than the rates in 2004 (46%), and 2007 (51%).
- Awareness was substantially higher among respondents who saw or heard commute advertising in the past year (61%) than for respondents who did not recall advertising (44%). And commuters who had heard of Commuter Connections reported higher awareness of regional commute resources (59%) than did commuters who were not aware of Commuter Connections (44%).
- About 22% of respondents could name a specific number or web site; 13% named a Metro/WMATA phone number or website and 1% mentioned Metro/WMATA, but did not specify the number or website. One percent named a phone number or website administered by Commuter Connections.

Awareness of Commuter Connections continues to be high.

- In 2016, 61% of all regional commuters said they had heard of an organization in the Washington region called Commuter Connections. This was about the same rate as was measured in 2013 (62%) and 2010 (64%), but still considerably higher than the 53% who knew of Commuters Connections in 2007.
- One in ten (11%) respondents who knew of Commuter Connections had contacted the program or visited a Commuter Connections or MWCOG website in the past year. These commuters represented about 7% of all employed residents of the region.

Most local jurisdiction services were known to at least a quarter of their target populations.

- Respondents were asked about local commute assistance services provided in the counties where they lived and worked. Awareness of these programs ranged from 9% to 51% of respondents who were asked the questions. Four of the ten local programs were known to at least a third of the target area respondents and two other programs were known to about one-quarter of target area respondents.
- Use of the services ranged from 1% to 10% of the target audience. Use was generally higher for programs in outer jurisdictions and for programs associated with transit agencies or with a strong transit component. The relationship to the location in the region was likely because outer jurisdiction commuters encountered more congestion in their travel and had longer commute times and distances, which could encourage them to seek options for travel to work.

COMMUTER ASSISTANCE SERVICES PROVIDED BY EMPLOYERS

Availability of worksite commute assistance services remained stable between 2013 and 2016, but had declined since 2010.

- Fifty-five percent of respondents said their employers offered one or more alternative mode benefits or services to employees at their worksites. This was about the same share as in 2013 (57%), but a drop from the 61% noted in the 2010 survey, suggesting that employers that cut back the services during the economic recession had not yet re-introduced those services.
- The most commonly offered services were SmartTrip/subsidies for transit/vanpool, available to 37% of respondents, and information on commuter transportation options, available to 27% of respondents. Nearly one-quarter (23%) of respondents said their employers offered services for bikers and walkers and 21% said their employers offered preferential parking.
- Respondents who worked for Federal agencies were most likely to have benefits/services available (84%), compared with 44% to 57% of respondents who worked for other types of employers. Respondents who worked for large firms also reported greater access to benefits/services than did respondents who worked for small firms. And benefits/services were far more common among respondents who worked in the Inner Core area; 70% of these respondents had access to services compared with 47% who worked in the Middle Ring and 35% who worked in the Outer Ring.
- SmartBenefit transit/vanpool subsidies, information on commute options, and bikeshare memberships were the most widely used commuter assistance services, used, respectively, by 59%, 30%, and 25% of respondents who had access to the services.

Most commuters continue to have free worksite parking.

- The majority of respondents (64%) said their employers offered free, on-site parking to all employees, about the same percentage as had reported free parking in 2013 (63%), in 2010 (63%), 2007 (65%), and 2004 (66%). An additional 6% of respondents said their employers did not provide free parking to all employees, but that they personally had free parking.

- Federal agency workers and respondents who worked for non-profit organizations were least likely to have free parking at work; only 44% of Federal workers and 54% of non-profit workers had free parking, compared with 70% who worked for private firms and 74% who worked for state/local governments. Free parking also was much less common in the Inner Core; only 31% of Inner Core workers had free parking, compared with 83% of Middle Ring workers and 90% of Outer Ring workers.
- The availability of commute benefits/services was inversely related to the availability of free parking at the worksite. Less than half (46%) of respondents who said free parking was offered to all employees said their employers also offered commute benefits/services that would encourage or help them use alternative modes for commuting. By contrast, 72% of respondents who said free parking was not available reported having access to commute benefits/services at work.

Worksite commuter assistance services appeared to encourage use of alternative modes.

- Driving alone was less common for respondents who had access to benefits/. Only 55% of respondents with these services drove alone to work, compared with 76% of respondents whose employers did not provide these services.
- Respondents whose employers did not offer free parking also used alternative modes at much higher rates. Only about four in ten (42%) respondents who did not have free parking drove alone, compared with 80% of respondents who had free parking.

NOVEMBER 2017
TRANSPORTATION EMISSION REDUCTION MEASURE (TERM)
ANALYSIS REPORT SUMMARY FY 2015-2017
COMMUTER CONNECTIONS

BACKGROUND

This report presents the results of an evaluation of four Transportation Emission Reduction Measures (TERM), voluntary Transportation Demand Management (TDM) measures implemented by the National Capital Region Transportation Planning Board's (TPB) Commuter Connections program at the Metropolitan Washington Council of Governments (MWCOG) to support the Washington, DC metropolitan region's air quality conformity determination and congestion management process. This evaluation documents transportation and air quality impacts for the three-year evaluation period between July 1, 2014 and June 30, 2017, for the following TERMS:

- **Maryland and Telework** – Provides information and assistance to commuters and employers to further in-home and telework center-based telework programs.
- **Guaranteed Ride Home** – Eliminates a barrier to use of alternative modes by providing free rides home in the event of an unexpected personal emergency or unscheduled overtime to commuters who use alternative modes.
- **Employer Outreach** – Provides regional outreach services to encourage large, private-sector and non-profit employers voluntarily to implement commuter assistance strategies that will contribute to reducing vehicle trips to worksites, including the efforts of jurisdiction sales representatives to foster new and expanded trip reduction programs.
- **Mass Marketing** – Involves a large-scale, comprehensive media campaign to inform the region's commuters of services available from Commuter Connections as one way to address commuters' frustration about the commute.

MWCOG's National Capital Region TPB, the designated Metropolitan Planning Organization (MPO) for the Washington, DC metropolitan region, adopted and continues to support these TERMS, among others, as part of the regional Transportation Improvement Program (TIP). The purpose of the TERMS is to help the region reach emission reduction targets that would maintain a positive air quality conformity determination for the region and to meet federal requirements for the congestion management process. The Commuter Connections program is considered integral in regional travel demand management and is included in the region's TERMS technical documentation which was updated in October 2015. Travel parameters prior to the year 2010 were captured by the regional travel demand model. Only the effects of the incremental growth of the Commuter Connections program post 2010 will be accounted for in future analysis years.

MWCOG/TPB's Commuter Connections program, which also operates an ongoing regional rideshare program, is the central administrator of the TERMS noted above. Commuter Connections elected to include a vigorous evaluation element in the implementation plan for each of the adopted TERMS to develop information to guide sound decision-making about the TERMS. This report summarizes the results of the TERM evaluation activities and presents the transportation and air quality impacts of the TERMS and the Commuter Operations Center (COC).

This evaluation represents a comprehensive evaluation for these programs. It should be noted, however, that the evaluation is conservative in the sense that it includes credit only for impacts that can be reasonably documented with accepted measurement methods and tools. Note that many of the

calculations used data from surveys that are subject to some statistical error, at rates common to such surveys.

A primary purpose of this evaluation was to develop meaningful information for regional transportation and air quality decision-makers, MWCOG/TPB staff, MWCOG/TPB program funding agencies, and state and local commute assistance program managers to guide sound decision-making about the TERMS. The results of this evaluation will provide valuable information for regional air quality conformity and the region's congestion management process, to improve the structure and implementation procedures of the TERMS themselves, and to refine future data collection methodologies and tools.

SUMMARY OF RESULTS

The objective of the evaluation is to estimate reductions in vehicle trips (VT), vehicle miles traveled (VMT), and tons of vehicle pollutants (Nitrogen Oxides [NO_x], Volatile Organic Compounds [VOC], Particulate Matter [PM_{2.5}], Particulate Matter NO_x precursors [PM_NO_x], and Carbon Dioxide [CO₂]) resulting from implementation of each TERM and compare the impacts against the goals established for the TERMS. The impact results for these measures are shown in Table A for each TERM individually. Results for all TERMS collectively and for the COC are presented in Table B.

As shown in Table A, the TERMS combined exceeded the collective goals for vehicle trips reduced by 14% and exceeded the VMT goal by about 18%. The TERMS did not reach the emission goals; the impact for NO_x was about 31% under the goal and VOC impact was 10% under the goal, but this was due largely to a change in the emission factors. Goals for some TERMS were re-set since the issuance of the FY2012 – 2014 Commuter Connections TERM Analysis Report. Emission factors used in the 2017 evaluation were considerably lower than the factors from 2014 and lower still than the factors used in 2011, reflecting a cleaner vehicle fleet.

When the COC results are added to the TERM impacts, as presented in Table B, the combined impacts exceeded the vehicle trip and VMT reduction goals by 8% and 9%, respectively. The combined TERM – COC program impacts fell 37% short of the NO_x goal and were 14% below the VOC goal. Again, the change in the emission factors affected the emission results.

Two TERMS, Telework – Maryland Assistance and Employer Outreach, easily met their individual goals for participation and travel impact. Employer Outreach exceeded vehicle trip and VMT goals by substantial margins. The Employer Outreach for Bicycling TERM component did not meet its goals, but the absolute deficits were small. The Virginia telework component (Telework!VA) also met the goals set for the program.

The impacts for the other two TERMS were below their goals. Vehicle trip reductions and VMT reductions for the Guaranteed Ride Home TERM were about half of the goals set for these impacts, primarily due to declining registrations, compared with 2014 and previous years. The Mass Marketing TERM's vehicle trip and VMT reductions were 6% and 10% short of their respective goals. The Commuter Operations Center and the Software Upgrades TERM also were under their goals for vehicle trips and VMT reduced.

Table A
Daily Impact Results for Individual TERMS (July 2014 – June 2017) and Comparison to Goals

TERM	Participation 1)	Daily Vehicle Trips Reduced	Daily VMT Reduced	Daily Tons NOx Reduced	Daily Tons VOC Reduced
Maryland Telework Assistance 2)					
2017 Goal	31,854	11,830	241,209	0.122	0.072
Impacts (7/14 – 6/17)	44,350	14,839	361,204	0.096	0.070
Net Credit or (Deficit)	12,496	3,009	119,995	(0.026)	(0.002)
Virginia Telework Assistance – Telework! VA 2)					
2017 Goal	800	155	2,548	0.003	0.001
Impacts (7/14 – 6/17)	1,531	490	9,359	0.003	0.002
Net Credit or (Deficit)	731	335	6,811	0.000	0.001
Guaranteed Ride Home					
2017 Goal	36,992	12,593	355,136	0.177	0.097
Impacts (7/14 – 6/17)	16,742	6,398	181,335	0.040	0.023
Net Credit or (Deficit)	(20,250)	(6,195)	(173,801)	(0.137)	(0.074)
Employer Outreach – all employers participating 3)					
2017 Goal	1,847	82,524	1,393,783	0.561	0.320
Impacts (7/14 – 6/17)	2,046	102,625	1,841,429	0.474	0.350
Net Credit or (Deficit)	199	20,101	447,646	(0.087)	0.030
Employer Outreach – new / expanded employer services since July 2014 3)					
2017 Goal	91	N/A	N/A	N/A	N/A
Impacts (7/14 – 6/17)	765	25,936	482,153	0.123	0.090
Net Credit or	674	N/A	N/A	N/A	N/A
Employer Outreach for Bicycling 3)					
2017 Goal	590	404	2,421	0.0016	0.0015
Impacts (7/14 – 6/17)	597	373	1,640	0.0008	0.0012
Net Credit or	7	(31)	(781)	(0.0008)	(0.0003)
Mass Marketing					
2017 Goal	23,168	10,809	181,932	0.085	0.025
Impacts (7/14 – 6/17)	23,016	10,133	163,250	0.042	0.019
Net Credit or (Deficit)	(152)	(676)	(18,682)	0.043	(0.006)
TERMS (all TERMS collectively)					
2017 Goal		117,911	2,174,608	0.948	0.515
Impacts (7/14 – 6/17)		134,485	2,556,577	0.655	0.464
Net Credit or (Deficit)		16,574	381,969	(0.293)	(0.051)

- 1) Participation refers to number of commuters participating, except for the Employer Outreach TERM. For this TERM, participation equals the number of employers participating.
- 2) Maryland impacts represent portion of regional telework attributable to TERM-related activities in Maryland. Virginia impacts represent portion of regional telework attributable to the TW!VA program in Virginia. Total telework credited for conformity is higher than reported for the TERM.
- 3) Impacts for Employer Outreach - all employers participating includes impacts for Employer Outreach – new / expanded employer services since July 2014 and for Employer Outreach for Bicycling.

Table B
Summary of TERM and COC Results (July 2014 – June 2017) and Comparison to Goals

TERM	Participation	Daily Vehicle Trips Reduced	Daily VMT Reduced	Daily Tons NOx Reduced	Daily Tons VOC Reduced
TERMS (all TERMS collectively)					
2017 Goal		117,911	2,174,608	0.948	0.515
Impacts (7/14 – 6/17)		134,485	2,556,577	0.655	0.464
Net Credit or (Deficit)		16,7574	381,969	(0.293)	(0.051)
Commuter Operations Center – Basic Services					
2017 Goal	91,609	24,425	512,637	0.241	0.115
Impacts (7/14 – 6/17)	77,662	19,949	401,327	0.105	0.079
Net Credit or (Deficit)	(13,947)	(4,476)	(111,310)	(0.136)	(0.036)
Commuter Operations Center – Software Upgrades ¹⁾					
2017 Goal	4,681	2,379	66,442	0.028	0.011
Impacts (7/14 – 6/17)	4,178	1,779	51,340	0.011	0.006
Net Credit or (Deficit)	(503)	(600)	(15,102)	(0.017)	(0.005)
All TERMS plus COC					
2017 Goal		144,715	2,753,687	1.217	0.641
Impacts (7/14 – 6/17)		156,213	3,009,244	0.771	0.549
Net Credit or (Deficit)		11,498	255,557	(0.446)	(0.092)

1) Impacts for Commuter Operations Center – software Upgrades are in addition to the impacts for the Commuter Operations Center – Basic Services. This project was previously part of the Integrated Rideshare TERM.

Table C
Summary of Annual PM 2.5 and CO2 (Greenhouse Gas) Emission Results for Individual TERMS

TERM	Annual Tons PM 2.5 Reduced	Annual Tons PM 2.5 Precursor NOx Reduced	Annual Tons CO2 Reduced
Maryland Telework Assistance ¹⁾	1.275	25.675	38,820.0
Virginia Telework Assistance (TW!VA) ¹⁾	0.025	0.700	1,012.5
Guaranteed Ride Home	0.552	10.585	17,664.1
Employer Outreach – all employers ²⁾	6.275	126.775	190,093.1
Employer Outreach – new/expanded	1.650	32.975	49,801.5
Employer Outreach for Bicycling	0.000	0.250	195.3
Mass Marketing	0.556	11.369	16,644.8
TERMS (all TERMS collectively)	8.683	175.104	264,234.5
Commuter Operations Center – basic services (not including Software Upgrades)	1.377	28.137	41,766.3
Commuter Operations Center – Software	0.150	2.975	4,981.1
All TERMS plus Commuter Operations Center	10.210	206.216	310,981.9

1) Maryland impacts represent portion of regional telework attributable to TERM-related activities in Maryland. Virginia impacts represent portion of regional telework attributable to the TW!VA program in Virginia. Total telework credited for conformity is higher than reported for the TERM.

2) Impacts for new / expanded employer programs and Employer Outreach for Bicycling are included in the Employer Outreach – all employers.

Table D
Summary of Results for Individual TERMS 7/14– 6/17 Compared with 7/11 – 6/14

TERM	DAILY VEHICLE TRIPS REDUCED	DAILY VMT REDUCED	DAILY TONS NOX REDUCED	DAILY TONS VOC REDUCED
Maryland Telework Assistance				
July 2014 – June 2017	14,839	361,204	0.096	0.070
July 2011 – June 2014	9,651	205,511	0.101	0.051
Change ¹⁾	5,188	155,693	(0.005)	0.019
Virginia Telework Assistance – Telework! VA				
July 2014 – June 2017	490	9,359	0.003	0.002
July 2011 – June 2014 ²⁾	N/A	N/A	N/A	N/A
Change	490	9,359	0.003	0.002
Guaranteed Ride Home				
July 2014 – June 2017	6,398	181,335	0.040	0.023
July 2011 – June 2014	7,711	212,834	0.087	0.033
Change ¹⁾	(1,313)	(31,473)	(0.047)	(0.011)
Employer Outreach – All services except Employer Outreach for Bicycling				
July 2014 – June 2017	102,252	1,839,789	0.473	0.349
July 2011 – June 2014	78,210	1,325,107	0.533	0.304
Change ¹⁾	24,042	514,682	(0.059)	0.045
Employer Outreach for Bicycling				
July 2014 – June 2017	373	1,640	0.001	0.001
July 2011 – June 2014	323	1,937	0.001	0.001
Change ¹⁾	50	(297)	0.000	0.000
Mass Marketing				
July 2014 – June 2017	10,133	163,250	0.042	0.019
July 2011 – June 2014	10,294	173,269	0.081	0.024
Change ¹⁾	(161)	(10,019)	(0.038)	(0.005)
All TERMS				
July 2014 – June 2017	134,485	2,556,577	0.655	0.464
July 2011 – June 2014	106,189	1,918,658	0.803	0.412
Change ¹⁾	28,296	637,919	(0.148)	0.052
Commuter Operations Center (Basic Services + Software Upgrades)				
July 2014 – June 2017	21,728	452,667	0.116	0.085
July 2011 – June 2014	25,641	554,668	0.258	0.121
Change ¹⁾	(3,913)	(102,001)	(0.142)	(0.035)

1) Change in emissions is due in part to reduction in emission factors from 2014 to 2017.

2) Telework! VA was not included in the FY 2012-14 TERM analysis.

MARCH 2018
FY 2017 GUARANTEED RIDE HOME CUSTOMER SATISFACTION SURVEY REPORT SUMMARY
WASHINGTON DC METROPOLITAN REGION
COMMUTER CONNECTIONS

BACKGROUND

The Metropolitan Washington Council of Governments (MWCOCG) through its Commuter Connections program, under the auspices of its funders, has operated the Guaranteed Ride Home program (GRH) in the Washington DC Metropolitan region since January 1997. A “commuter insurance” program, GRH is designed to encourage ridesharing and transit usage by providing a way home for qualifying commuters in the case of an unexpected personal/family emergency or unscheduled overtime, when their normal alternative commute mode is not available. Many area workers who consider switching commute modes from Single Occupancy Vehicles to carpools, vanpools, and transit are concerned about being stranded at work if they unexpectedly have to leave before or after standard work hours. GRH eliminates this concern, and encourages carpooling/vanpooling, taking transit, bicycling and walking to work. Commuters who use these transportation modes twice a week are provided with four free GRH rides home per year. Alternative mode commute practices reduce the number of automobiles on the road and help the region toward air quality goals.

CUSTOMER SATISFACTION SURVEY AND METHODOLOGY

The Customer Satisfaction Survey for GRH in the Washington DC Metropolitan Region was conducted as an ongoing study each month throughout the fiscal year. All customers who obtained a free ride home through the program during FY2017 (July 1, 2016 – June 30, 2017) were provided the opportunity to participate in the survey.

Emails with a link to the survey are sent on the day following the GRH trip. A small portion of GRH customers, five percent, have not provided Commuter Connections with an email address, therefore surveys for this group are sent through the U.S. Postal Service. Both the hard copy and online surveys allow respondents to rate the GRH service and provide comments and suggestions. See appendix for samples of the survey response card and online survey. Note: some respondents did not answer all questions. As a result, response totals to some questions may not be equal to the total number of survey respondents.

SURVEY DESIGN

The FY2017 survey consisted of five multiple-choice questions, one fill in the blank, and an area for comments. Four questions provide insight into customer opinions regarding various operational functions of GRH and asks respondents to rate aspects of the service by circling one of four responses—“Poor,” “Fair,” “Good,” or “Excellent.” Another multiple-choice question asks the reason for the trip and a fill in the blank question asks respondents to indicate their wait time. The comments area provides an open-ended forum to offer specific or general feedback, whether positive or negative.

The performance areas of GRH were addressed by four multiple-choice questions pertaining to reservations staff, transportation service, response time, and overall service. “Reservations staff” refers to the operators who answer telephone calls from commuters requesting GRH service, verify the request in accordance with the official GRH participation guidelines, and arrange the ride for the commuter. These operators are employees of Diamond Transportation Services, Inc., which provides

such services under a contractual arrangement with MWCOG. "Transportation service" refers to the modes of transportation (e.g., taxi, rental car service) and the affiliated organizations (e.g., xyz cab company, Enterprise Rent-a-Car) that provide the trips from the workplace to the final destination. The types of transportation modes used for the GRH trips were selected by Diamond Transportation Services based on the type and severity of the emergency, distance traveled, and customer preferences.

RESPONSE RATES

The response rate for FY2017 was 14%, a two-point decrease from the previous year.

SURVEY RESULTS

Of the 2,405 surveys distributed in FY2017, 336 (16%) surveys were completed.

- The vast majority (95%) of the survey respondents were satisfied with the overall GRH service.
- Written responses were entered on almost three-quarters (72%) of the returned surveys. Compliments outweighed Complaints more than 7-1, 70% to 30%.
- Average response wait was 14 minutes and about 94% waited 30 minutes or less.
- Response time rating was lower than in FY2015.
- Reasons for utilizing the GRH service were primarily "Personal Illness" (41%), "Sick Child" (23%), "Overtime" (11%), and "Other Emergency" (25%)

The table below provides detail on the percentage ratings for each survey question and a favorability mark, a measure of the combined "Good" or "Excellent" responses.

Survey Questions	Responses	FY2017	FY2017 Favorability (excellent & good)	Previous Favorability FY2016 (excellent & good)	Previous Favorability FY2015 (excellent & good)
How would you rate the service you received from our GRH trip reservations staff?	Excellent	84%	96%	92%	95%
	Good	12%			
	Fair	3%			
	Poor	1%			
How would you rate the taxi or rental car service?	Excellent	77%	93%	90%	95%
	Good	16%			
	Fair	4%			
	Poor	3%			
How would you rate response time?	Excellent	81%	94%	90%	91%
	Good	13%			
	Fair	2%			
	Poor	4%			
Overall, how would you rate our GRH service?	Excellent	80%	95%	91%	94%
	Good	15%			
	Fair	3%			
	Poor	2%			

Compliments

With 169 survey respondents who provided compliments, positive feedback was overwhelmingly (70%) the most prevalent type out of the total 242 written responses received; this measured more than 7 times the rate of complaints. Many were expressions of gratitude for the GRH service. Some commuters explicitly listed GRH as the main reason which allows them to utilize an alternative commute mode. Many of the respondents provided personal stories about how GRH helped them during a crisis situation.

The vast majority compliments were about Overall Service, followed by the Transportation Service. The breakdown of compliments by category are as follows: 150 of 242 compliments were made about the Overall Service, 64 percent; 159 compliments were made about the Transportation Service, 66 percent; 134 were made about the Reservations Staff, 55 percent; and 90 were made about Response Time, 55 percent.

Complaints

A total of 23 survey respondents provided complaints about the GRH service; 9.5% out of the 279 written responses. Respondents who complained may have also provided written feedback of other types. For example, of respondents who cited a complaint, six also gave a compliment.

MARCH 2018
FY 2017 GUARANTEED RIDE HOME CUSTOMER SATISFACTION SURVEY REPORT SUMMARY
BALTIMORE METROPOLITAN REGION
COMMUTER CONNECTIONS

BACKGROUND

The Metropolitan Washington Council of Governments (MWCOC) through its Commuter Connections program, under the auspices of its funders, has operated the Guaranteed Ride Home program (GRH) in the Baltimore Metropolitan region since October 2011. A “commuter insurance” program, GRH is designed to encourage ridesharing and transit usage by providing a way home for qualifying commuters in the case of an unexpected personal/family emergency or unscheduled overtime, when their normal alternative commute mode is not available. Many area workers who consider switching commute modes from Single Occupancy Vehicles to carpools, vanpools, and transit are concerned about being stranded at work if they unexpectedly have to leave before or after standard work hours. GRH eliminates this concern, and encourages carpooling/vanpooling, taking transit, bicycling and walking to work. Commuters who use these transportation modes twice a week are provided with four free GRH rides home per year. Alternative mode commute practices reduce the number of automobiles on the road and help the region toward air quality goals.

CUSTOMER SATISFACTION SURVEY AND METHODOLOGY

The Customer Satisfaction Survey for GRH in the Baltimore Metropolitan Region is conducted as an ongoing study each month throughout the fiscal year. All customers who obtained a free ride home through the program during FY2017 were provided the opportunity to participate in the survey.

Emails with a link to the survey are sent on the day following the GRH trip. A small portion of GRH customers, five percent, have not provided Commuter Connections with an email address, therefore surveys for this group are sent through the U.S. Postal Service. Both the hard copy and online surveys allow respondents to rate the GRH service and provide comments and suggestions

SURVEY DESIGN

The FY2017 survey consisted of five multiple-choice questions, one fill in the blank, and an area for comments. Four questions provide insight into customer opinions regarding various operational functions of GRH and asks respondents to rate aspects of the service by circling one of four responses—“Poor,” “Fair,” “Good,” or “Excellent.” Another multiple-choice question asks the reason for the trip and a fill in the blank question asks respondents to indicate their wait time. The comments area provides an open-ended forum to offer specific or general feedback, whether positive or negative.

The performance areas of GRH were addressed by four multiple-choice questions pertaining to reservations staff, transportation service, response time, and overall service. “Reservations staff” refers to the operators who answer telephone calls from commuters requesting GRH service, verify the request in accordance with the official GRH participation guidelines, and arrange the ride for the commuter. These operators are employees of Diamond Transportation Services, Inc., which provides such services under a contractual arrangement with MWCOC. “Transportation service” refers to the modes of transportation (e.g., taxi, rental car service) and the affiliated organizations (e.g., xyz cab company, Enterprise Rent-a-Car) that provide the trips from the workplace to the final destination. The

types of transportation modes used for the GRH trips were selected by Diamond Transportation Services based on the type and severity of the emergency, distance traveled, and customer preferences.

RESPONSE RATES

The response rate for FY2017 was 16%.

SURVEY RESULTS

Of the 128 surveys distributed in FY2017, 21 (16%) surveys were completed.

- The vast majority (81%) of the survey respondents were satisfied with the overall GRH service.
- Written responses were entered on more than three-quarters (76%) of the returned surveys. The majority of the responses were compliments.
- Average response wait time increased from FY2016 (35.5 minutes) to FY2017 (46 minutes). The percentage of commuters who waited 30 minutes or less remained the same 53%.
- Reasons for utilizing the GRH service were primarily “Personal Illness” (52%), “Sick Child” (10%), “Overtime” (24%), and “Other Emergency” (14%).

The table below provides detail on the percentage ratings for each survey question and a favorability mark, a measure of the combined “Good” or “Excellent” responses, compared to last year.

Survey Questions	Responses	FY2017	FY2017 Favorability (excellent & good)	FY2016 Favorability (excellent & good)	FY2015 Favorability (excellent & good)
How would you rate service received from our trip reservations staff?	Excellent	62%	86%	88%	90%
	Good	24%			
	Fair	9%			
	Poor	5%			
How would you rate the taxi or rental car service?	Excellent	50%	80%	81%	82%
	Good	30%			
	Fair	10%			
	Poor	10%			
How would you rate our response time?	Excellent	43%	72%	50%	62%
	Good	29%			
	Fair	14%			
	Poor	14%			
How would you rate our overall service?	Excellent	57%	86%	81%	90%
	Good	29%			
	Fair	5%			
	Poor	9%			

Compliments

The majority of the compliments (69%), 11 of the 16 written comments contained compliments. Many were expressions of gratitude for the GRH services.

The majority of compliments were about Overall Service, followed by response time, then Transportation Service, and Reservation Staff.

The breakdown of compliments by category are as follows: 10 of 16 compliments were made about the Overall Service, 63%; 9 compliments were made about Response Time, (56%); the Transportation Service received 7 compliments (44%) and Reservation Staff received five compliments (31%)

Complaints

Almost a third (31%), 2 of the 16 written comments contained complaints. Much of the negative feedback came from customers expressing frustration about the length of time to receive their ride.

MAY 2018
FY2018 APPLICANT DATABASE ANNUAL PLACEMENT SURVEY REPORT SUMMARY
(November 2017 Survey) Applications Received During July-September 2017
COMMUTER CONNECTIONS

BACKGROUND

This report presents results of a survey about commuter transportation assistance services offered by the Commuter Connections program of the National Capital Region Transportation Planning Board at the Metropolitan Washington Council of Governments (COG) to commuters in the Washington, DC region.

Commuter Connections' services include: carpool and vanpool matchlists, transit route and schedule information, information on Park & Ride lot locations, bicycling and HOV facilities, and employer transportation demand management (TDM) and telework assistance. Commuters obtain services by calling a toll-free telephone number or by submitting a ridematch application on-line via the Commuter Connection's web site, or through an employer, a local partner assistance program, or a transportation management association (TMA). Additionally, some services are available for immediate download from Commuter Connections' website.

This report estimates transportation and air quality impacts of Commuter Connections' services. Data for this analysis were collected in November 2017 through a survey of 706 applicants randomly selected from the applicant database. The surveys collected data for applicants who received information or assistance between July 1 and September 30, 2017.

**Commuter Connections Program Activity Summary and
Overall Participation, Utilization, and Satisfaction Performance Measures
Placement Survey, July-September 2017**

• Commuter applicants		5,021
• Applicant placement rates		49.9%
○ Continued placement rate	36.4%	
○ Occasional placement rate	3.7%	
○ Temporary placement rate	5.2%	
○ One-time placement rate	4.6%	
• Applicants placed in alternative modes		2,505
○ Continued placements	1,826	
○ Occasional placements	186	
○ Temporary placements	262	
○ One-time placements	231	
• Applicants who received matchlist from Commuter Connections		25%
• Applicants who received vanpool assistance		6%
• Applicants who received transit information		28%
• Applicants who received commute event information		15%
• Applicants who received Park & Ride information		12%
• Applicants who received bicycle information		7%
• Applicants who received telework information		5%
• Applicants who received GRH information/registration		76%

**Commuter Connections Program
Program Impact Performance Measures
Placement Survey, July-September 2017**

- Daily vehicle trips (VT) reduced **954 trips**
 - Continued placements 935 trips
 - Temporary placements (prorated credit) 19 trips

- Daily VMT reduced **28,047**
 - Continued placements 27,583 VMT
 - Temporary placements (prorated credit) 464 VMT

- Daily tons of Emissions reduced
 - NOx **0.0063 tons**
 - VOC **0.0036 tons**

- Annual tons of Emissions reduced
 - PM 2.5 **0.100 tons**
 - PM 2.5 NOx precursors **2.650 tons**
 - CO2/Greenhouse gas **2,785.7 tons**

- Gallons of gasoline saved **1,457 daily gallons of gas**

- Commuter costs reduced
 - Annual cost saving per placement **\$720 per year**

OTHER KEY SURVEY RESULTS

Demographics

- Slightly over half of the applicants were female (54%). Nearly six in ten (57%) applicants were white and 84% were between 35 and 64 years old.

Commute Travel Patterns

- More than half (56%) applicants said they use transit at least one day per week. Transit trips accounted for 44.8% of applicants' weekly commute trips; 20.9% were made by bus and 15.9% were made by commuter rail. Applicants made 8.0% of weekly trips by Metrorail.
- One-third (33%) of applicants carpooled or vanpooled at least one day per week. Carpool and vanpool trips made up 26.3% of applicants' weekly trips.
- Nineteen percent of applicants drove alone one or more days per week, but this was a secondary mode for half of these applicants; drive alone was used for just 12.3% of weekly commute trips.
- The average one-way commute distance was 36.1miles. The average one-way commute time was 66 minutes.

Commute Changes

- Nearly half (49.9%) of survey respondents made a commute pattern change or tried another method of transportation after receiving assistance from Commuter Connections.
- More than a third (36.4%) of applicants made a change to an alternative mode that they had continued to use at least one day per week. This 36.4% was the “continued placement rate.” The temporary placement rate (percent of applicants who made a change but returned to their original modes) was 5.2%.
- About 4.6% of applicants tried using a new alternative mode a few days (one-time placement rate) and 3.7% made a change to a mode they use occasionally, but less than once per week on average (occasional placement rate).
- About one-third (36%) of applicants who made a mode change shifted from driving alone. The remaining 64% shifted from one alternative mode to another.
- The primary reasons that applicants made commute changes were to save money (21%) or save time (18%), because they changed jobs or work hours (14%), moved to a new residence (5%), or were tired of driving (6%).
- One-quarter (26%) applicants who made a commute change indicated that information they received from Commuter Connections influenced or assisted their decision to make the change. About seven percent of respondents cited a carpool or vanpool matching or assistance service and 6% named a transit information service. Four percent named Guaranteed Ride Home, 6% cited Park & Ride lot information. Four in ten (40%) said a service provided by their employer or another commute assistance organizations had influenced their decision.

Contact with Commuter Connections

- Applicants noted four primary sources of making contact with Commuter Connections: employer / employee survey (30%), word of mouth referrals (27%), internet (18%), and radio (11%).
- Almost half (49%) of applicants contacted Commuter Connections to find back-up transportation in case of emergency and 14% wanted to check commute options or a transit schedule or were just curious about the service. Twelve percent made the contact to find a carpool or vanpool partner or to get information about these modes, and 8% wanted to save money.

Information and Assistance Requested and Received

- The top service received overall, by a large majority, was Guaranteed Ride Home; three quarters (76%) applicants said they received or accessed this service, which is open to any commuter who uses an alternative mode to commute.
- Over four in ten (41%) applicants said they received or accessed a service to help with carpooling or vanpooling; 25% received a matchlist with names of potential carpool/vanpool partners, 10% used the Commuter Connections web site bulletin board, and 12% received a map showing home and work locations of potential car-pool/vanpool partners and 9% used the carpool rider bulletin board.
- Over half (56%) of applicants who received a matchlist or map with potential rideshare partners tried to contact someone named on the list and 83% who tried to make contact reached someone on the list.

- Nearly three-in-ten (28%) of applicants recalled receiving transit route, schedule, or fare information. Thirty-nine percent of these applicants said they used the information provided to contact a transit agency and 81% who contacted a transit agency said they used information they received from the transit agency to try transit.
- More than eight in ten (85%) applicants said their employers offer some commute services at the worksite. More than half (55%) said their employers offered transit pass discounts and 35% said telework or compressed work schedules were offered. Other common services included carpool/vanpool information (19%), other cash incentive (18%), matchlists (17%), vanpool subsidy (15%), GRH (25%), shuttle to Metrorail (15%), transit schedule information (12%), and Federal Transit Benefit Information.

**SEPTEMBER 2018
CONGESTION MANAGEMENT PROCESS (CMP) TECHNICAL 2018 REPORT
NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD
METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS**

Background

A Congestion Management Process (CMP) has been a requirement since the 2005 Safe Accountable Flexible Efficient Transportation Equity Act - A Legacy for the Users (SAFETEA-LU) federal legislation. The current Fixing America's Surface Transportation (FAST) Act and its supporting federal regulations fully maintain the requirements of the CMP with additional strategies and options. These legislations and regulations are a basis for the CMP component that is wholly incorporated in the region's long-range transportation plan, Visualize 2045. The CMP component of Visualize 2045 constitutes the region's official CMP, and serves to satisfy the federal requirement of having a regional CMP.

REGIONAL CONGESTION TRENDS, 2010-2015

Based on the results revealed by the I-95 Corridor Coalition Vehicle Probe Project (VPP)/INRIX traffic monitoring, peak period congestion in the Washington region decreased between 2010 and 2012, but more recently has increased moderately.

REGIONAL TRAVEL TIME RELIABILITY TRENDS, 2010-2015

Travelers in the Washington region typically will need to budget about two times of the free flow travel time during peak periods to ensure on-time arrivals. These numbers are based on all directions of travel, therefore for those who traveling in the peak direction would need to even budget more.

Similar to the trends observed in traffic congestion, travel time reliability improved 9.5% between 2010 and 2012 but worsened 9.8 % from 2012 to 2015. The reliability levels in 2014 and 2015 were very close to 2010.

CONGESTION MONTHLY VARIATION

Congestion varies from month to month within a year. Monthly variations of congestion were most noticeable on the Interstate System, followed by the Transit- Significant Roads, the Non-Interstate NHS, and the Non-NHS.

The region overall had increasing congestion from January to May, then decreasing congestion through August. September had the highest level of congestion, after that, congestion kept decreasing for the rest of year. Four of the five investigated highway categories followed this trend. The only exception was the Interstates, on which congestion kept increasing from August to November, reaching the highest level in a year.

CONGESTION DAY OF WEEK VARIATION

Congestion also varies within a week. The middle weekdays – Tuesday, Wednesday and Thursday – were the most congested days of a week. During these three weekdays, the AM Peak had almost identical congestion while the most congested PM Peak occurred on Thursday, followed by Wednesday and Tuesday.

Monday and Friday had unique traffic patterns. Monday morning's traffic was lower than that of the middle weekdays but higher than Friday; Monday afternoon had the least congestion among

weekdays. Friday morning had the least congestion in all weekdays; Friday afternoon's congestion was almost as bad as the normal weekdays, but it came about one hour earlier without ending earlier – expanded congested time period.

Weekend days had the lowest traffic in a week and Sunday was even lower than Saturday. During these two days, mid-day traffic (12:00 – 3:00 pm) was the highest.

Congestion on Transit and Other Systems

TRANSIT

The National Capital Region possesses a multimodal and diverse transit system, including Metrorail, commuter rail and a variety of bus operations. Congestion on the transit system is always one of the concerns of the CMP.

Congestion on the region's roadway network often has an impact on transit systems, such as rail and bus. The identified congested locations, especially those on the Washington Metropolitan Area Transit Authority's (WMATA) Priority Corridor Network and the Transit-Significant Roads as identified by the TPB's Regional Public Transportation Subcommittee are usually also bottlenecks for bus transit. Relieving roadway congestion will directly have a positive impact on bus operations, such as reducing travelers' delay, reducing bus operations cost, improving bus reliability and increasing ridership.

Congestion can also be an issue within transit. If the demand for buses, rail and train is high and the capacity cannot keep up with that demand, then transit becomes overcrowded. Metrorail crowdedness are often observed during rush hours along certain stations, such as the maximum load stations recorded in the WMATA's Vital Sign Reports, e.g., Orange Line Court House station and Red Line Gallery Place station. Congestion also exists within certain transit stations, especially multimodal transit centers, e.g. Union Station. Station congestion is a congestion of different nature, mostly due to limitations in design and circulation as well as ridership growth. Momentum, Metro's strategic plan for 2013-2025 found that there are crowded conditions at peak periods today; without rail fleet expansion, most rail lines will be even more congested by 2025.

CORDON COUNTS

The cordon count program originated from the desire to assess the impact of the construction of the region's Metrorail system starting in the late 1960's. Thus, a cordon line around the Central Business District (the "core") was determined by the inbound point at which there were more destinations (alighting from transit buses) than origins (loadings onto transit buses). The most recent cordon count study is the 2013 Central Employment Core Cordon Count of Vehicular and Passenger Volumes. Data were only collected from 5:00 A.M. to 10:00 A.M. The study found:

- Total inbound travel decreased in the A.M. peak period from about 463,000 person trips in 2009 to 446,000 in 2013. Trips crossing the revised cordon in 2013 were about 435,000.
- Inbound peak period transit trips were about 211,000, little changed from 2009. Transittrips crossing the revised cordon line were about 197,000.
- Person trips by automobile in 2013 were about 236,000, a decrease of about 21,000 from 2009. Most of the decrease in person trips were in multiple occupant vehicles (2 or more persons per vehicles), which declined by about 21,000 trips.

- The number of automobiles entering the Central Employment Core in the A.M. peak period has declined from 203,000 in 2009 to about 192,500 in 2013. For the five-hour monitoring period, the decline was similar in absolute terms, from about 273,000 in 2009 to 263,000 in 2013.
- Traffic volumes crossing the revised cordon line were only slightly higher, but person trips were lower.
- About 3,500 bicycles entered the Central Employment Core in the A.M. peak period. In the full five hour monitoring period, almost 5,000 trips by bike were observed.

HOV FACILITIES

COG/TPB has conducted surveys on the high occupancy vehicle (HOV) freeway facilities in 1997, 1998, 1999, 2004, 2007, 2010 and 2014. The most recent survey found that:

- All of the HOV lanes in spring 2014 were observed to carry more persons per lane during the HOV restricted periods than adjacent non-HOV lanes except on US50;
- Most of the HOV lanes provide savings in travel times when compared to non-HOV alternatives, especially the barrier separated HOV lanes in the I-95/I-395 corridor in Northern Virginia;
- However, the performance of the concurrent-flow HOV lanes in the I-66 lanes (outside I-495) and along I-270 were at certain points between 10 and 25 MPH slower than adjacent non-HOV lanes, as well as sections of the exclusive I-66 HOV facility inside I-495 (staff examined data from the Vehicle Probe Project (VPP) and found recurring congestion along I-66 eastbound from the Dulles Connector Road to a point between Sycamore Street and Va. 120 [North Glebe Road]); and
- Average auto occupancy in 2014 was little-changed from 2010, even though the HOV lanes in Northern Virginia continue to exempt vehicles with “Clean Air” registration plates from the HOV requirement.

PARK-AND-RIDE FACILITIES

There are over 160,000 parking spaces at nearly 400 Park & Ride lots throughout the Washington/Baltimore Metropolitan areas where commuters can conveniently bike, walk or drive to and join up with carpools/vanpools or gain access to public transit. According to the region’s [Commuter Connections](#) program: two thirds of Park & Ride Lots have bus or rail service available; parking is free at 89% of the Park & Ride Lots; and more than 25% of Park & Ride Lots have bicycle parking facilities.

The [2008 Metrorail Station Access & Capacity Study](#) found Metro presently owns and operates 58,186 parking spaces. On an average weekday, almost all of those spaces are occupied, especially stations at East Falls Church, Van Dorn Street, Naylor Road and Branch Ave. Only a handful of stations—White Flint, Wheaton, College Park-U of MD, Prince George’s Plaza, and Minnesota Ave—have a substantial amount of daily unused available capacity.

In 2009, WMATA and VDOT completed the Feasibility Study of Real Time Parking Information at Metrorail Parking Facilities (Virginia Stations), evaluating the feasibility of a real-time parking application for the Metrorail system, with the purpose of improving operations efficiency, reducing

operating costs by providing guidance to available parking spaces, encouraging more transit usage and reducing congestion.

Future Congestion

The 2015 CLRP Performance Analysis forecasts the outlook for growth in the region. One of the cornerstones of plan performance is the forecasting of future congestion. The plan performance looks at where in the region congestion will occur in the future and compares current congestion to future congestion. It looks at criteria that may affect congestion, such as changes in population, employment, transit work trips, vehicle work trips, lane miles, and lane miles of congestion. The analysis also breaks down lane miles of congestion into core, inner suburbs, and outer suburbs, providing information on where, generally, the most lane miles of congestion can be found in 2040 compared to 2015.

From 2015 to 2040, the region is forecast to be home to 24% more residents and 36% more jobs in 2040. To accommodate growth, 7% more lane miles of roadway and 14% more transit rail miles are planned to be constructed. The total number of trips taken is expected to increase by 23%, while transit, walk, and bike trips together are expected to increase at a faster rate than single driver trips. The overall amount of driving (VMT) is expected to grow by 22%. This is slightly less than forecast population growth, which means that VMT per capita is expected to drop by 2%. The increase in demand on the roadways is forecast to out-pace the increase in supply, leading to a significant increase in congestion.

National Comparison of the Washington Region's Congestion

The Washington region is among the most congested metropolitan areas in the nation. Based on annual hours of delay per auto commuter, the region was the most congested city in the nation in Texas A&M Transportation Institute's 2015 Urban Mobility Scorecard (for 2014 data). However, using a different methodology based on annual average hours wasted in traffic, INRIX ranked the Washington region the 2nd in 2015. And based on extra travel time compared to free flow conditions, TomTom ranked the region the 8th in the United States in 2015.

Congestion Management Strategies

The CMP has been playing an important role in developing strategies, including strategies in association with capacity-expanding projects, to combat congestion or mitigate the impact of congestion. The CLRP and TPB member agencies have pursued many alternatives to capacity increases, with considerations of these strategies informed by the CMP. Implemented or continuing strategies include demand management strategies and operational management strategies, as shown in Figure 8. It should be noted that although strategies are divided into two categories for reporting purposes in this document, demand management and operational management strategies should be designed and implemented to work in cooperation.

DEMAND MANAGEMENT STRATEGIES

Demand Management aims at influencing travelers' behavior for the purpose of redistributing or reducing travel demand. Examples of TPB's demand management strategies include:

- Commuter Connections Program – Including strategies such as Telework, Employer Outreach, Guaranteed Ride Home, Live Near Your Work, Carpooling, Vanpooling, Ridematching Services, Car Free Day, and Bike to Work Day.
- Promotion of local travel demand management – Local demand management strategies are

documented in the main body of the CMP Technical Report.

- Public transportation improvements – The Washington region continues to support a robust transit system as a major alternative to driving alone.
- Pedestrian and bicycle transportation enhancements as promoted and tracked through the Bicycle and Pedestrian Planning program – The number of bicycle and pedestrian facilities in the region has increased in recent years; the regional bikesharing program, Capital Bikeshare can be found in Washington, D.C., Arlington County, the City of Alexandria, and Montgomery County, MD. There are plans to expand Capital Bikeshare to locations County. The City of College Park began its own bikeshare program in 2016.
- Car sharing - Local governments work with private companies to make the region's car sharing market viable.
- Land use strategies – Including those promoted by the Transportation-Land Use Connections (TLC) Program.

Key Findings of the 2016 CMP Technical Report

1. **Congestion** – Peak period congestion in the Washington region decreased between 2010 and 2012, and then increased moderately in 2014 and 2015, but still remaining lower than that of 2010. The Travel Time Index dropped 6.7% between 2010 and 2012, but climbed 3.3% between 2012 and 2015. The percent of congested road miles was 21% in 2010, 11% in 2012, and 17% in 2015.
2. **Reliability** – Travel time reliability in the region improved between 2010 and 2012, and then worsened in 2014 and 2015, almost back to the 2010 level. The Planning Time Index decreased (improved) by 10% between 2010 and 2012, but increased (worsened) by 10% between 2012 and 2015.
3. **Bottlenecks** – Three new bottlenecks emerged on the east side of the Beltway in the 2016 CMP Technical Report that were not on the list in the 2014 Report: I-495 inner-loop at MD-214, I-495 outer-loop at US-50, and I-495 inner-loop at MD-4. Additionally, I-95 at VA-123/Exit 160 added two new Top 10 bottlenecks, one on each direction. The Beltway at the American Legion Bridge added a new, outer-loop bottleneck, making both directions to the Top 10 list. I-270 SB at the spur and I-66 WB at VA-234 remained in the Top 10 list.
4. **Travel Demand Management** – Travel demand management continues to be an important tool for day-to-day congestion management and played a key role in congestion management during the June 2015 Papal visit and the March 16, 2016 Metrorail shutdown. The Commuter Connections program remains the centerpiece to assist and encourage people in the Washington region to use alternatives to the single-occupant automobile. The transit system in the Washington region serves as a major alternative to driving alone – transit mode share is among the highest several metropolitan areas in the country.
5. **Regional Transportation Operations Coordination** – The Metropolitan Washington Area Transportation Operations Coordination (MATOC) continues to play an important role in coordination and communicating incident information during both typical travel days and special events such as severe weather and construction work.
6. **Real-time travel information** – The increasing availability of technology to monitor, detect, and evaluate travel conditions allows operators to make changes to the transportation network through active travel demand management, traffic signal optimization, and integrative

corridor management. For travelers, real-time traffic and transit information are available from a number of sources through mobile applications and mobile versions of websites. Social media provides a mutually beneficial direct connection between transportation providers and users. Mobile applications related to non-auto modes, such as bikesharing and carsharing, allow travelers to be flexible with their mode choices.

7. **Variably Priced Lanes (VPLs)** - VPLs provide additional options to travelers in the region. Maryland Route 200 (Intercounty Connector (ICC)) was fully opened between I-370/I-270 and US-1 in November 2014; a Before-and-After study identified the ICC improved its adjacent area's traffic by 3-4%. The 495 Express Lanes opened on the Virginia side of the Capital Beltway in November 2012; there were 42,000 average workday trips in the June 2015 quarter, up from 35,000 in the June 2014 quarter, and 29,000 in the June 2013 quarter. The 95 Express Lanes in Northern Virginia opened in December 2014 which had 45,000 average workday trips in the quarter ending in June 2015.
8. **Walking and Bicycling** – Walking and bicycling continue to grow in the region in part due to bikesharing and carsharing options and increasing connectivity in the bicycle and pedestrian network.