

REGION FORWARD COALITION

Draft: 09/01/11

# Accessibility

*The Accessibility goals for Region Forward are.....*

- Transit Oriented mixed use communities emerging in Regional Activity Centers that will capture new employment and household growth.
- A transportation system that maximizes community connectivity and walkability, and minimizes ecological harm to the region and world beyond.
- A variety of housing types and choices in diverse vibrant safe healthy and sustainable neighborhoods affordable to persons at all income levels.
- A broad range of public and private transportation choices for our region which maximizes accessibility and affordability to everyone and minimizes reliance upon single occupancy automobiles



# Accessibility

**Target:** Beginning in 2012, capture 75% of the square footage of new commercial construction and 50% of new households in Regional Activity Centers



## Baseline:

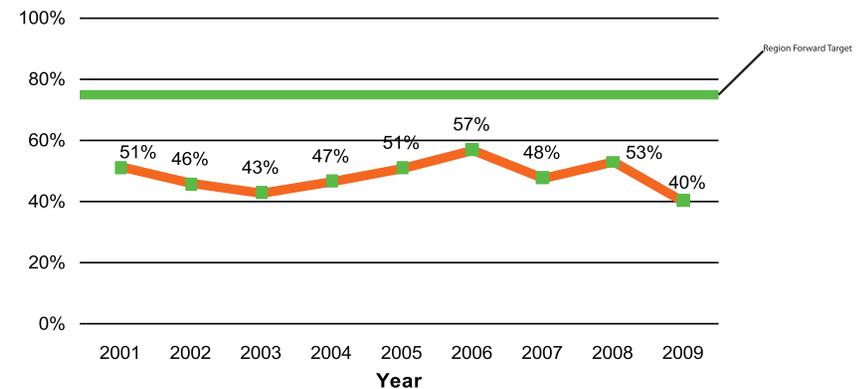
**2009 Commercial Construction: 40%  
Share of New Households Forecasted  
in Regional Activity Centers 36%**

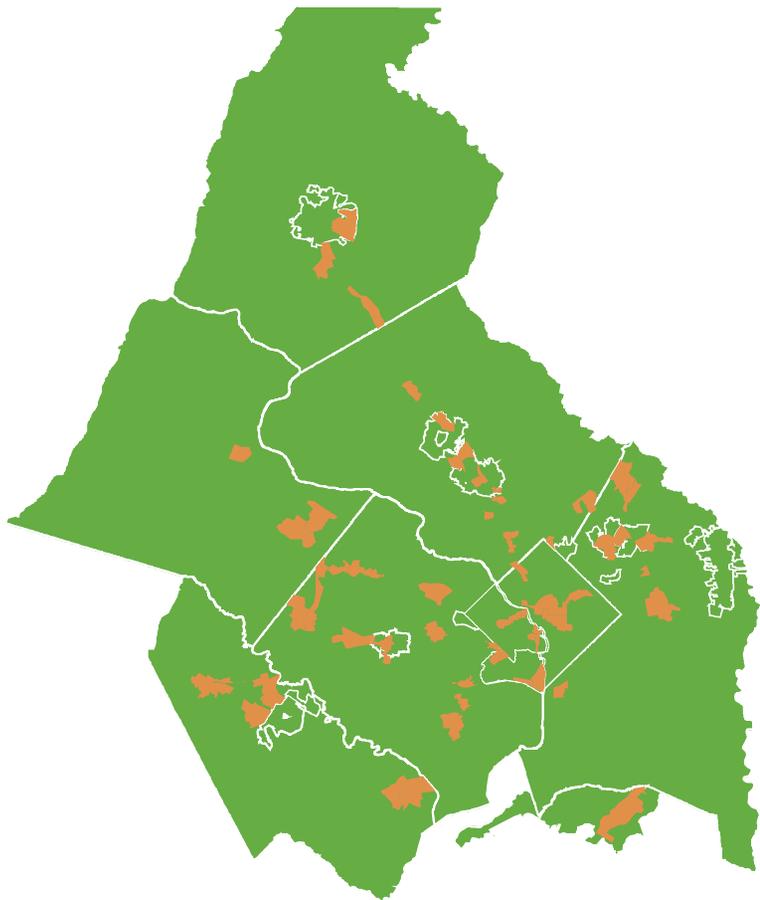
The future location of residents and jobs around existing transportation infrastructure and Regional Activity Centers will be critical for attaining this target. As of the end of 2009, a total of 66 commercial construction projects, contributing nearly 6.2 million square feet of space were started in 59 Regional Activity Centers. The new space accounted for 40 percent of the region's new construction activity. COG's Commercial Construction report is the basis for tracking commercial construction activity in the Washington region. The Commercial Construction report tracks new non-residential construction projects based on location, size, value, and use.

Based on the Round 8 Cooperative Forecasts – for the period of 2005 and 2010 - 36% of new households was in Regional Activity Centers. COG's Cooperative Forecasting Program enables local, regional, and federal agencies to coordinate planning decisions using common assumptions about future growth and development in the region. Each series of forecasts, or a "Round," provides land use activity forecast of employment, population, and households by five-year increments. Round 8.0 was approved by the COG Board of Directors in 2010.

Percent of Annual Commercial Construction Square in Activity Centers & Clusters

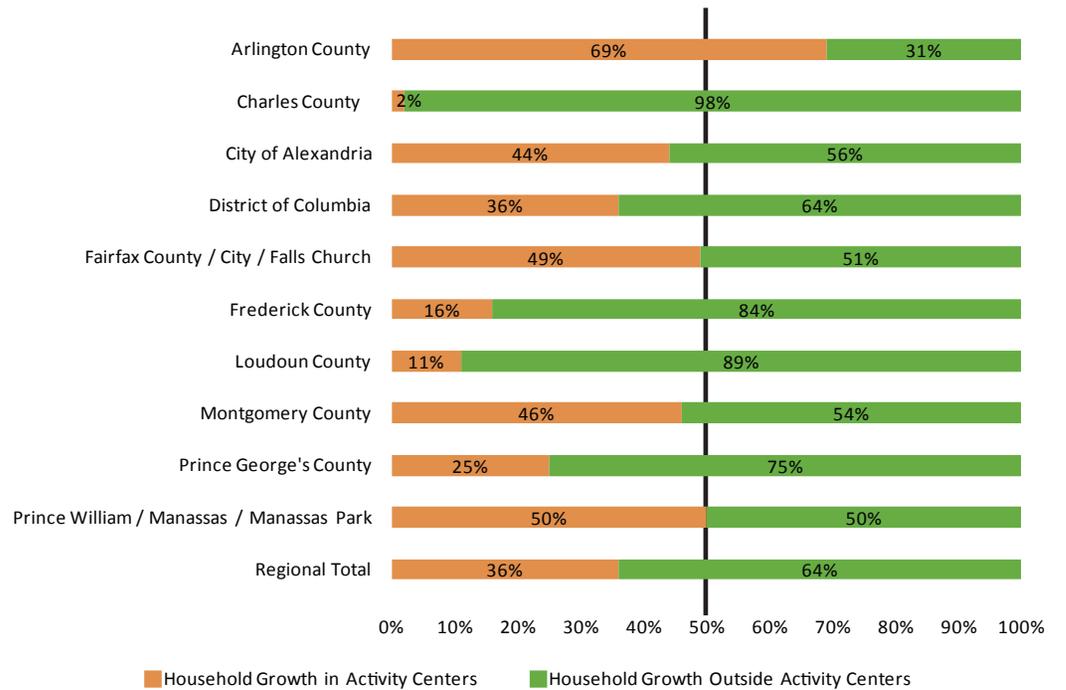
Source: MWCOG Commercial Construction Indicators





- The COG Region
- Regional Activity Centers

Percent of Household Growth Between 2005 and 2040  
Occurring in Regional Activity Centers



# Accessibility

**Target:** Reduce daily vehicle miles traveled (VMT) per capita

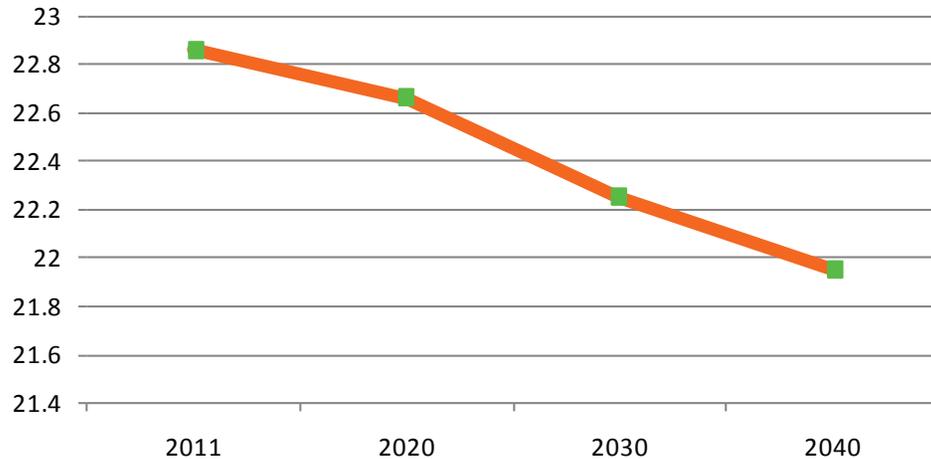


**Baseline:** 2011: 22.86 vehicle miles per capita

Source: 2010 CLRP Travel Demand Forecasts for the MSA

Vehicle Miles Traveled (VMT) per capita is an important measure of how residents in our region attain accessibility. In 2010 per capita VMT was 22.86 miles and current projections show this figure dropping below 22 miles by 2040. VMT per capita is calculated by dividing the total vehicle miles traveled annually by that years regional population. Reducing per capita VMT reduces both congestion and pollution produced regionally bringing health and economic benefits. However, the rate of decline in per capita VMT does not offset the overall increase in annual VMT propelled by population growth. These data are collected from the household travel survey?

Per Capita Daily VMT



# Accessibility

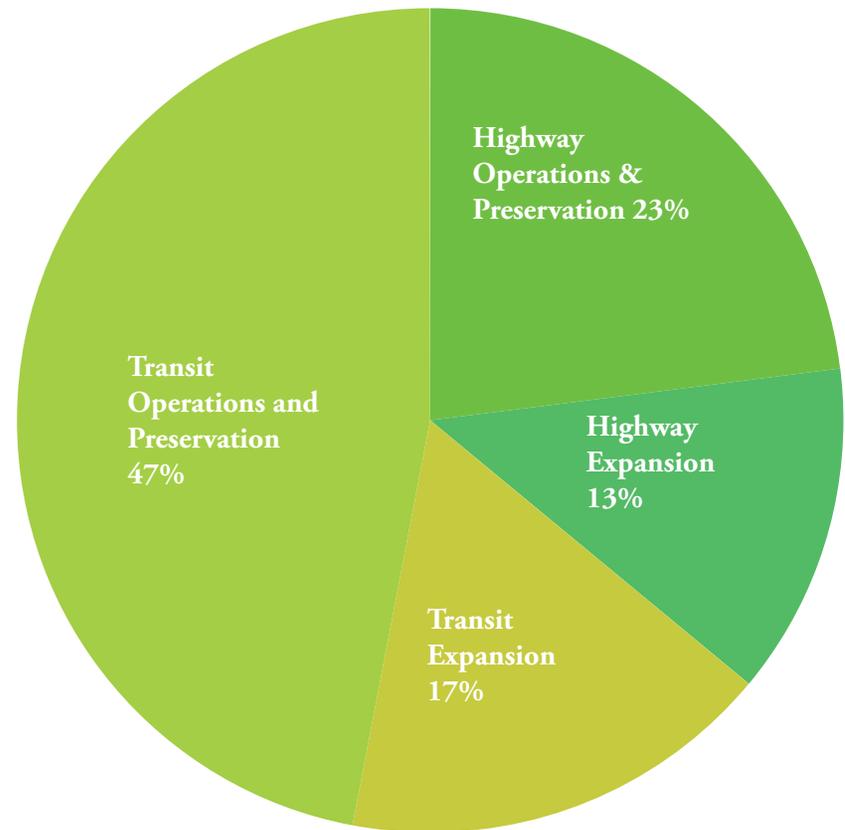
**Target:** The region's transportation system will give priority to management, performance, maintenance, and safety of all transportation modes and facilities



**Baseline:** 70% of the Constrained Long Range Plan is dedicated to operations and Maintenance.

This target is designed to ensure that the National Capital Region develops sustainable infrastructure. It is imperative that we continue to invest in the operations and maintenance of the systems and facilities that currently serve our region's population. Many regions attempt to accommodate new growth by deferring maintenance and reducing operation budgets. However, evidence proves that this approach is unlikely to benefit the region in the long term because neglect will result in vastly more expensive repairs.

This indicator is measured by the value and purpose of items in the Constrained Long Range Plan. Each project is classified as one of four categories for this analysis; highway expansion, highway operations, transit expansion, and transit operations. Among these four categories transit operations consumes the largest amount of funds largely because transit operations have high personnel costs.



# Accessibility

**Target:** Transportation investments will link Regional Activity Centers

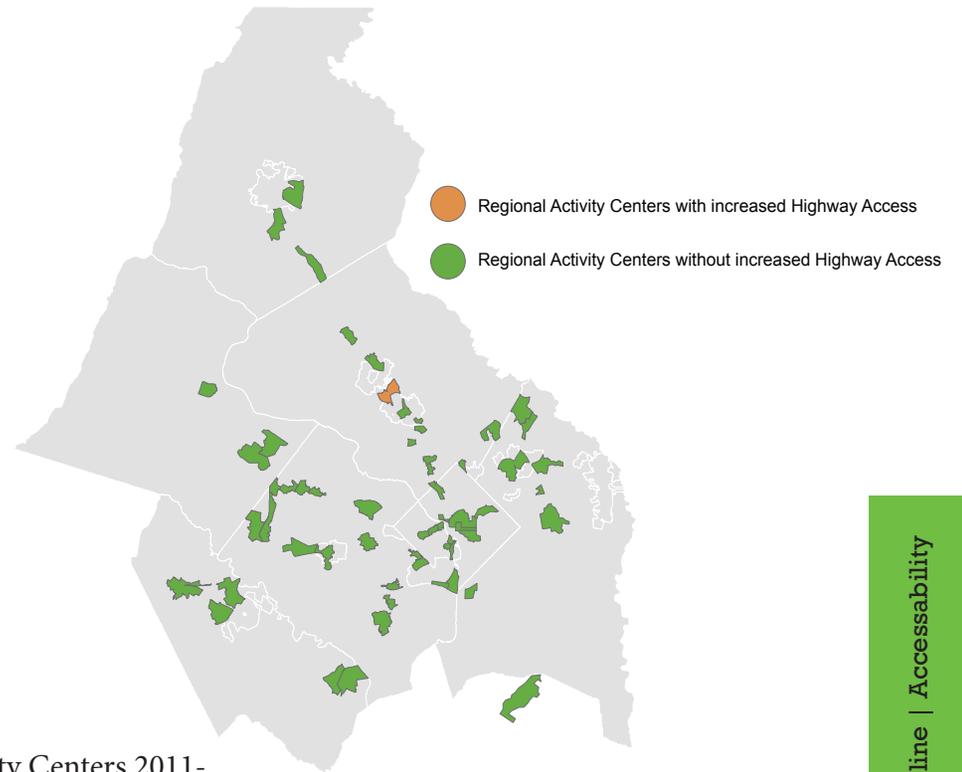
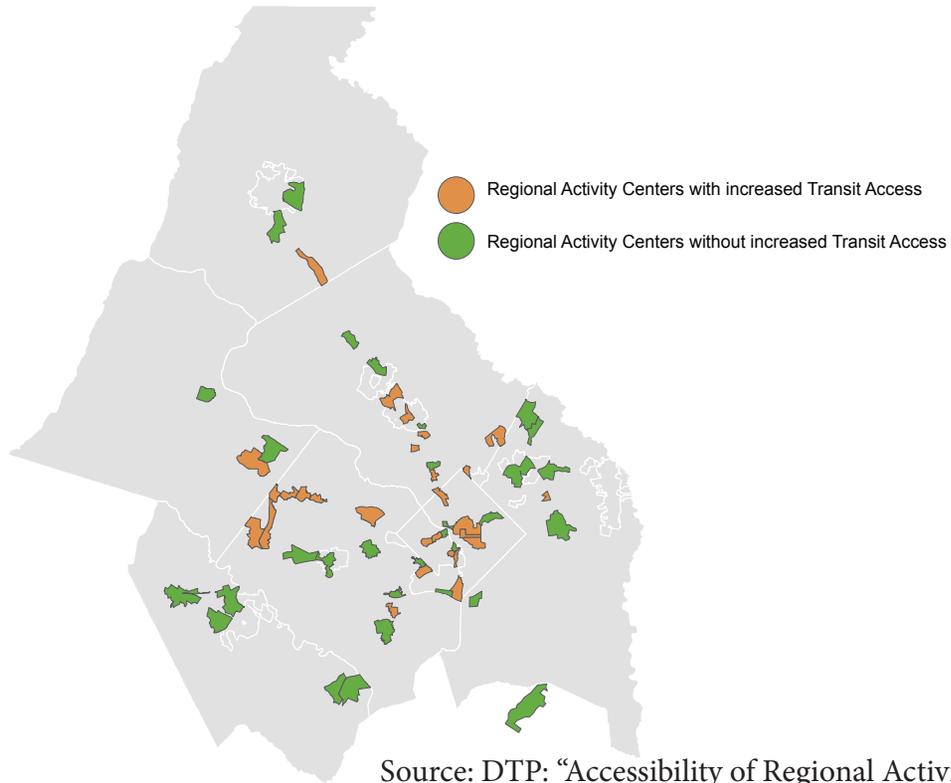


**Baseline:** Between 2010 and 2040 19 Regional Activity Centers will increase Transit Access and 1 Regional Activity Center will increase Highway Access.

The National Capital Region has one of the best educated workforces and wealthiest consumer bases in the nation. Consequently, if our region can connect more people with centers of commerce we will grow stronger and more resilient. Based on the current Constrained Long Range Plan the National Capital Region will increase activity center accessibility with transit by nineteen centers and highway by one center between now and 2040. Most accessibility gains will come from transit because highway congestion will continue to increase over the next forty years at a rate that will consume planned increases in capacity. Furthermore, most of the gains in transit accessibility come from activity centers with existing Metrorail stations that are within a 45 minute commute of future stations along the Metrorail Silver line that is currently under construction.

Regional Activity Centers are the areas which house the highest concentrations of employment throughout the region. Consequently, these centers are the foundation of the National Capital Region's economy. Regional Activity centers are dispersed throughout the region along major corridors which provide connections between jobs, employees, and customers. This target measures the region's economic strength by evaluating how many other activity centers can be reached from each individual center within 45 minutes by highway and transit. Travel times are calculated using the transportation demand forecasting model developed by MWCOG specifically for our region.





Source: DTP: "Accessibility of Regional Activity Centers 2011-2040 change in 45 min access."

# Accessibility

**Target:** By 2020, the housing and transportation costs in Regional Activity Centers will not exceed 45% of area median income



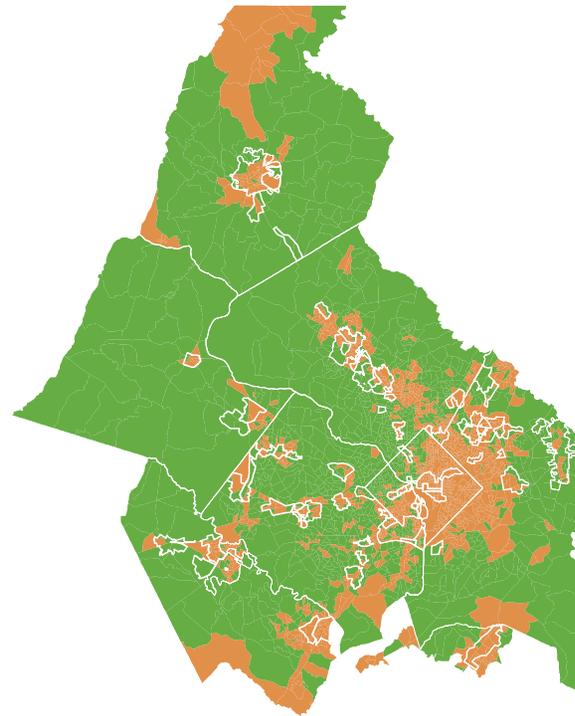
**Baseline:** **NEED** to establish census block group conversion for Activity centers.

This target utilizes data produced by the Center for Neighborhood Technology that measures the combined affordability of housing and transportation. Areas where a median income household can spend less than 45 percent of their income on both housing and transportation costs are considered affordable. The threshold of 45 percent is derived from generally accepted figures for housing and transportation affordability of 30 and 15 percent respectively. By comparing housing and transportation cost simultaneously geographic market distortions are eliminated. Specifically, this index accounts for two common distortions; 1) suburban or exurban locations with relatively low housing costs that are offset by high transportation cost, 2) urban

locations with high housing cost that are offset by much lower transportation costs. This index creates a level playing field to assess the true affordability on a regional scale.

Housing and transportation cost are compiled by the Center for Neighborhood Technology. Housing cost are developed using Census block group level data for selected home owner and renter cost from the 2000 Decennial Census. Transportation costs are calculated using a peer reviewed multiple regression model developed by the Center for Neighborhood Technology and the Brookings Institution. The model uses publicly available census tract and census block group level data. In order to

capture as much detail as possible the CNT Brookings transportation cost model uses twelve variables; Residential Density, Gross Density, Average Block Size in Acres, Transit Connectivity Index, Job Density, Average Time to Work Journey, Car Ownership, Car Usage, and Public Transit Usage. CNT has produced verifiable data for the 100 largest metropolitan regions in the United States which has in effect created a national database of transportation cost. The CNT Housing and Transportation index has become increasingly influential in urban policy development. One of the most notable examples of the index's impact is CNT's recent partnership with the Federal Department of Housing and Development to create a key indicator to



assess grant applications with.

Source: CNT data

# Accessibility

**Target:** Beginning in 2012, at least 80% of new or preserved affordable housing units will be located in Regional Activity Centers



**Baseline:** None

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## Have a working solution

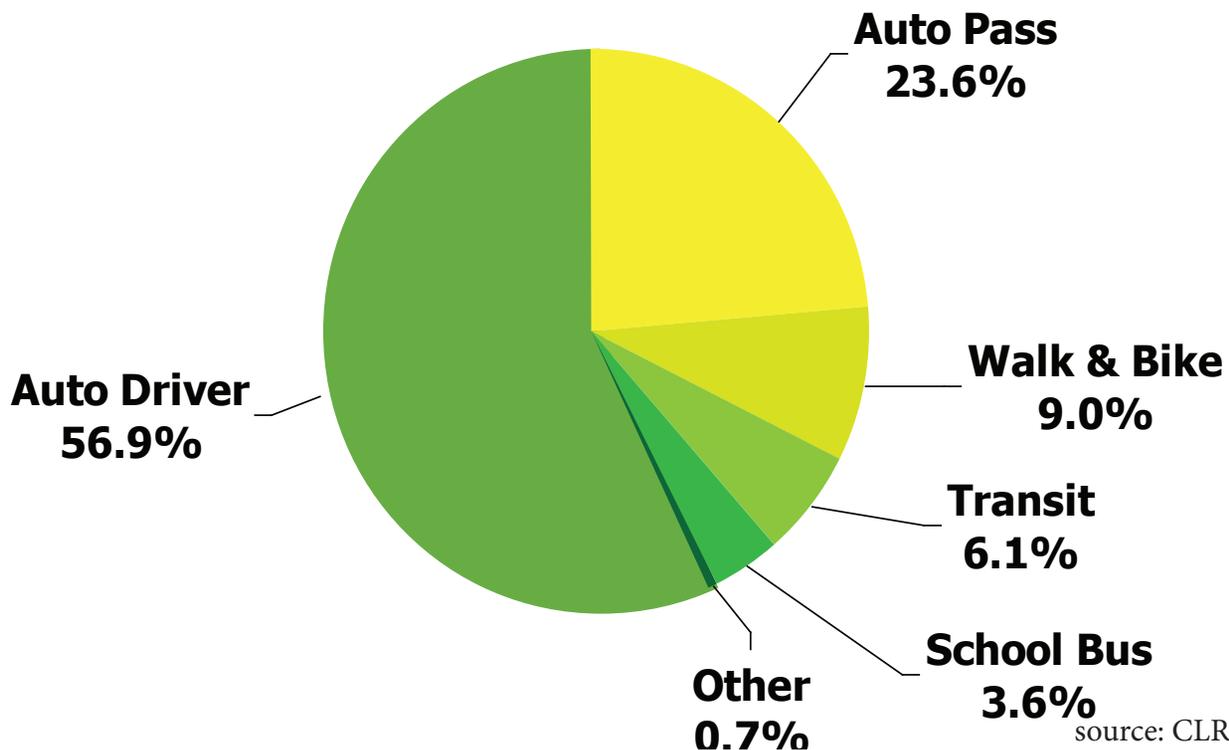
**Target:** Increase the share of walk, bike, and transit trips



**Baseline:** 2011: 37.4% of trips to work were by walking, biking, or transit

Source: 2010 CLRP Travel Demand Forecasts for the MSA

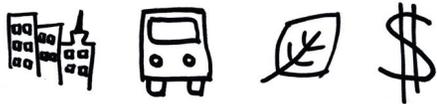
Increasing walking, bicycle, and transit trips to work is important because these trips have the smallest environmental impact while economically using public space. In 2011 these trips comprised 37.4% of all trips to work. By national standards our region has a very high percentage of non-automobile commuters. These data are collected from the American Community Survey produced by the US census bureau. These data represent the mode of transportation each respondent took most for the greatest part of their journey to work. Consequently, this survey methodology under reports walking and bicycling because they tend to be fair weather modes and “last mile” components of a multi modal journey.



source: CLRP

# Accessibility

**Target:** All Regional Activity Centers will have transit access



**Baseline:** 53% of Regional Activity Centers are Served by Rail Transit in 2011.

Transit Access in Regional Activity Centers	2011	2040
Regional Activity Centers with Rail Transit	31	37
Metrorail stations within Regional Activity Centers	25	31
Commuter Rail stations with in Regional Activity Centers	15	15
Regional Activity Centers without Rail Transit	28	22
Rail Stations Not Located in Activity Centers	73	76
Metrorail stations outside of Regional Activity Centers	37	39
Commuter Rail Stations located outside of Regional Activity Centers	36	37

The National Capital Region’s economy serves a tremendous breadth of economic sectors and our Regional Activity Centers based on employment concentrations reflect these differences. In downtown Washington DC the economy is dominated by the large federal presence, while Activity Centers near Dulles Airport are characterized by large technology firms. The different needs for each center have shaped their infrastructure. However, because each center represents major employment concentration transit access is critical because it ensures that all people in the region can access our key centers for employment and commerce.

This target is measured by the number of regional activity centers which have Metrorail and commuter rail service. Bus service is excluded because service quality is difficult to establish and long term operations are unpredictable. These issues are a direct result of bus service’s the flexible nature. Consequently, the data collected for this target will provide a sense of how well our land use and transportation decisions correspond over time but not an exhaustive analysis. Currently, 53% of our Regional Activity Centers are served by rail transit in 2011. Plans for expansion of the regional rail network will serve 63% of Regional Activity Centers by 2040. These rates are relatively high in comparison to many other metropolitan regions which have little or no rail transportation. Still our region currently has a mismatch between our land use and our transportation infrastructure because a majority of the region’s rail stations are not located in Regional Activity Centers. This challenge is likely the result of the relatively recent entrance of Metrorail as a commuter rail service following several decades of auto oriented development.

# Accessibility

**Target:** Increase the rate of construction of bike and pedestrian facilities from the Transportation Planning Board's Plan



## Baseline:

Facility Type	Totals in 2005	Completed 2006-2010	Planned New Facilities/Upgrades	Total Planned for 2040
Bicycle Lane	56	35	450	541
Shared-Use Path	490	53	630	1173
<b>Total</b>	<b>546</b>	<b>88</b>	<b>1080</b>	<b>1714</b>

**17% of Bicycle Lanes**

**46% of Shared Use Paths**

Bicycle and pedestrian infrastructure is a critical aspect of our region's transportation system. This target measures regional progress toward implementing facilities that will make these modes of transportation safer and more appealing.

As of 2010 the region has completed 17 percent of the bicycle lanes and 46 percent of the shared use paths planned for completion by 2040. These data are collected by analyzing the bicycle and pedestrian elements of the Constrained Long Range Plan prepared by the Transportation Planning Board.

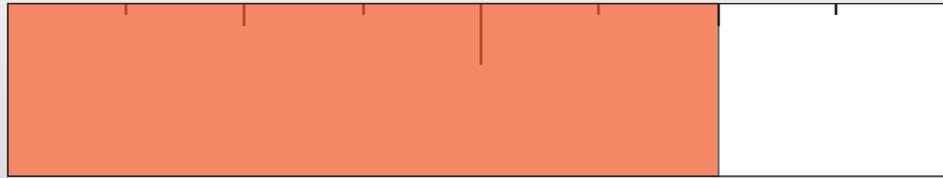
Bicycle and pedestrian infrastructure benefits all regional residents because every trip starts and ends with a pedestrian trip. Therefore, these pieces of infrastructure will enhance mobility for all residents by creating an enhanced pedestrian realm. They will also promote environmentally sustainable accessibility solutions that will encourage higher active transportation rates. Active transportation promotes healthier lifestyles that reduce incidence of obesity, diabetes, and heart disease.



**Dedicated Facilities Improve Health and Safety**



# Accessibility Dashboard



Beginning in 2012, capture 75% of the square footage of new commercial construction and 50% of new households in Regional Activity Centers



Reduce daily vehicle miles traveled (VMT) per capita



The region's transportation system will give priority to management, performance, maintenance, and safety of all transportation modes and



Transportation investments will link Regional Activity Centers



By 2020, the housing and transportation costs in Regional Activity Centers will not exceed 45% of area median income



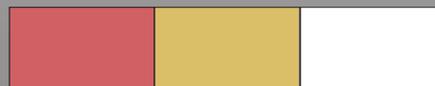
Beginning in 2012, at least 80% of new or preserved affordable housing units will be located in Regional Activity Centers



Increase the share of walk, bike, and transit trips



All Regional Activity Centers will have transit access



Increase the rate of construction of bike and pedestrian facilities from the Transportation Planning



The National Capital Region currently excels in accessibility as is indicated by our attainment of these targets. However, the targets which we are currently in full attainment of will become increasingly challenging as the region contends with prolonged population growth and aging infrastructure. We have begun this effort with a strong system but that is not enough to ensure long term attainment.