

Growth Trends to 2040: Cooperative Forecasting in the Washington Region

Local governments in the Washington region have worked cooperatively for many years to develop region-wide and neighborhood level forecasts of employment, population, and households. Through this effort, a consistent set of local and regional forecasts is developed for use in program and facilities planning throughout the region.

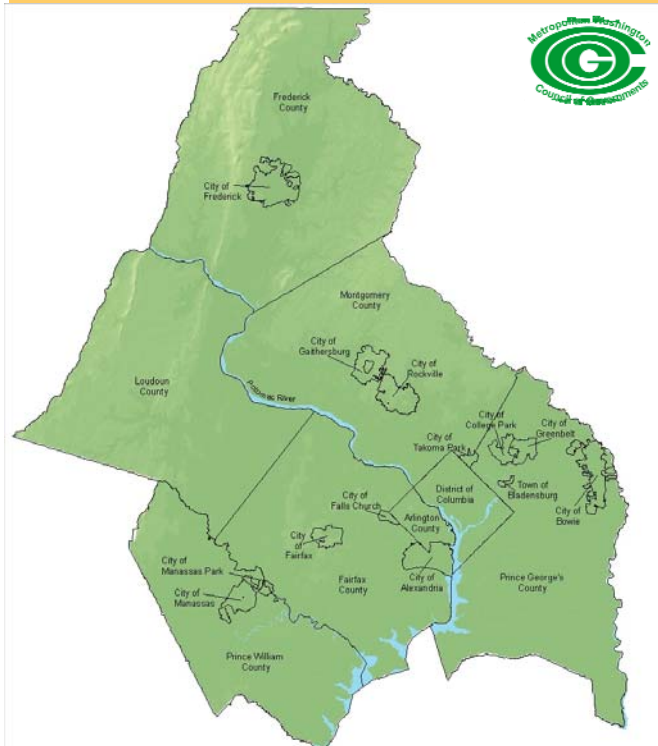
The Cooperative Forecasting Program, established in 1975 and administered by the Metropolitan Washington Council of Governments (COG), enables local, regional, and federal agencies to coordinate planning using common assumptions about future growth and development in the region. Each series of forecasts, or a “Round,” provides land use activity forecasts of employment, population, and households by five-year increments. Each round covers a period of 20 to 30 years.

The Cooperative Forecasting process provides data necessary for regional planning activities including analyzing the effects of growth and developing policy responses to regional issues. In addition, the forecasts are used to determine the demand for public facilities including schools, parks, medical facilities, roads, stores, and services.

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Metropolitan Washington Council of Governments Membership



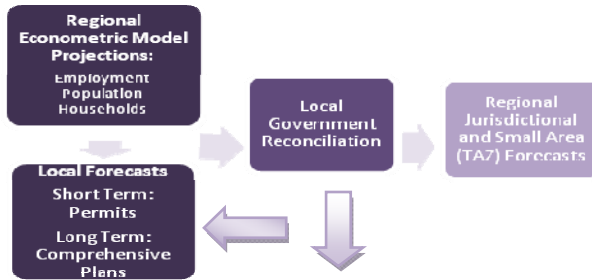
Process

The Cooperative Forecast is a multi-stage, “top-down/bottom-up” process undertaken by COG’s Planning Directors Technical Advisory Committee and the Cooperative Forecasting and Data Subcommittee. It employs a regional econometric model and local jurisdictional forecasts. The model projects employment, population, and households for the metropolitan Washington area based on national economic trends and local demographic factors.

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COG Cooperative Forecasting Process

Cooperative Forecasting Model



The model is based on the 1983 definition of the Metropolitan Statistical Area (MSA) that includes the COG member jurisdictions, as well as Calvert, Charles, and Stafford counties. Concurrently, local jurisdictions develop independent projections of population, households, and employment based on pipeline development, market conditions, planned transportation improvements, and adopted land use plans and zoning, taking into account the preliminary regional projections.

The Cooperative Forecasting and Data Subcommittee, which is comprised of local government planners, economists, and demographers, reviews and reconciles the two sets of projections. (figure 1) The model and the local jurisdictional projections must be within three percent of each other for the new set of Cooperative Forecasts to be reconciled.

The forecasts are presented and approved by the Planning Directors Technical Advisory Committee; the Metropolitan Development Policy Committee; and the COG Board of Directors.

Recognizing that market conditions and policies may change, the subcommittee reviews the forecasts annually, and allows local governments to make minor adjustments. The forecasts may also be adjusted to reflect local governments' assessments of the likely housing and employment impacts due to major new transportation facilities. Updated forecasts are referred to as Round 6.3, Round 6.4a, etc. These forecasts are Round 7.2A as adopted by the COG Board in October 2009.

Coordination

In February 2003, the COG Board of Directors adopted a resolution to further enhance coordination between regional land use and transportation planning in metropolitan Washington. Beginning with Round 6.3 and for all subsequent rounds, the Cooperative Forecasts are approved by the COG Board concurrently with the National Capital Region Transportation Planning Board's (TPB) approval of the results of the annual air quality conformity analysis of the Transportation Improvement Program (TIP) and the Financially-Constrained Long Range Plan (CLRP).

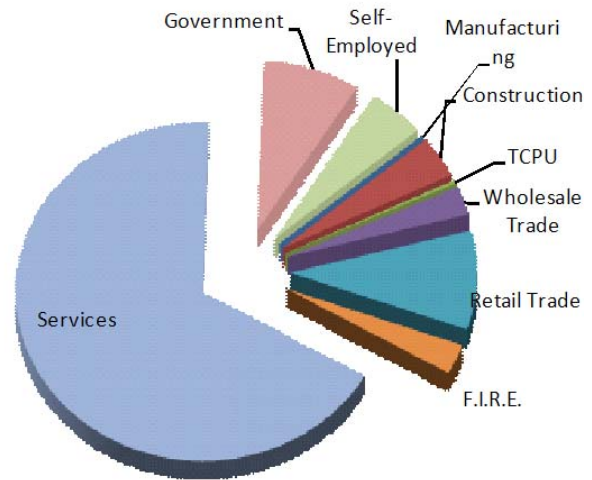
In reviewing the Round 7.0 forecasts in 2005, the Planning Directors Technical Advisory Committee and the Metropolitan Development Policy Committee determined that local plans and zoning in the metropolitan Washington region do not currently provide for the amount of housing necessary for workers to fill the forecasted jobs. Previously, forecasts adopted by the COG Board were based on local plans and zoning capacities as provided for in adopted land use plans. In approving Round 7.0, the COG Board concluded that certain localities will need to re-plan and rezone land to provide sufficient housing to meet employment projections. This assumption is still implicit in the Round 7.2A Forecasts.

The Round 7.2A Forecasts reveal dramatic increases in employment, households, and population by 2040, the end of the forecast period. Under the intermediate scenario, regional employment would total more than 4.6 million jobs by 2040, a 49 percent increase over the 2005 employment base of 3.1 million jobs. Also, under this scenario, households would reach more than 2.7 million, a 44 percent increase. The Round 7.2A Forecasts reflect the recommendations of the 2005 Base Realignment Closure (BRAC) Commission, as of June 2009.

After modest growth in the 1970s and early 1980s, the region's population grew rapidly in the late 1980s. During the 1990s, the population reached nearly 5.0 million residents in 2005. Regional population is anticipated to increase by 38 percent during the forecast period, reaching nearly 6.8 million in 2040. This will add nearly 1.9 million people to the region by 2040, which is slightly less than added during the previous 30-year period.

Regional employment, projected to increase nearly 49 percent from 2005 to 2040, will experience a slightly higher rate of growth than both population and households.

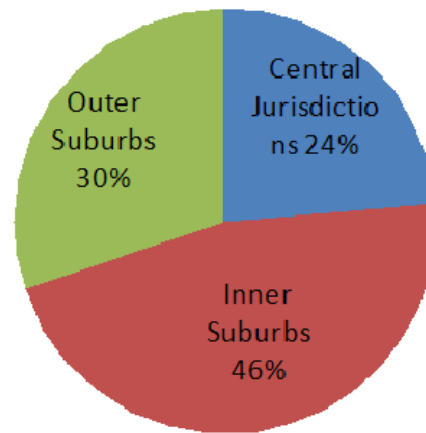
Industry Shares of 2005—2030 Growth: Two-thirds of All New Jobs in Services



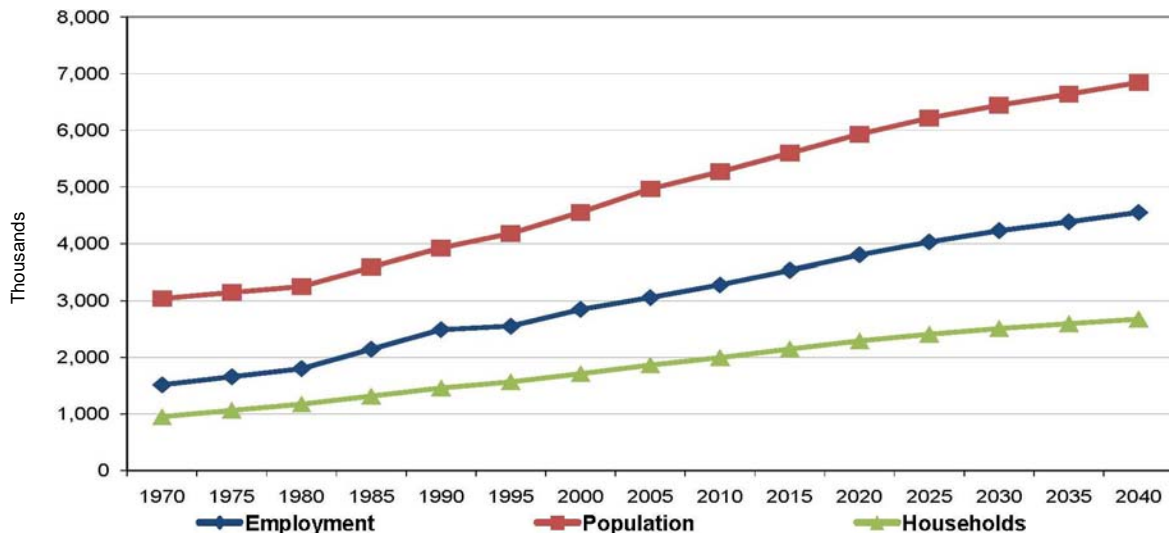
Employment

Employment growth would be the greatest during the 2005 to 2010 time period, when an average of 60,000 new jobs are anticipated per year—slightly more than the amount of jobs added from 2010 to 2015. Two-thirds of all new jobs are anticipated in service industries such as engineering, computer and data processing, business services, and medical research. Job growth in Northern Virginia (53%) will outpace the growth anticipated in the Maryland suburbs (33%), and the District of Columbia (14%).

Regional Share of Employment Growth 2005-2040



Historic and Forecast Growth



Source: Round 7.2A Cooperative Forecasts¹ Based on the 1983 definition of the Washington Metropolitan Statistical Area (MSA)

Summary of Intermediate Employment Forecasts Round 7.2A Cooperative Forecasts (Thousands)

JURISDICTION	2005	2010	2015	2020	2025	2030	2035	2040	Number	% Change	Share
District of Columbia	750.3	788.2	815.2	860.9	895.1	922.4	931.6	959.2	209.0	27.9%	14.0%
Arlington County	194.9	214.5	237.6	259.6	267.1	271.7	278.3	280.8	85.9	44.1%	5.7%
City of Alexandria	105.8	109.1	123.8	136.0	147.3	156.8	159.8	164.8	59.0	55.8%	4.0%
Central Jurisdictions	1,051.0	1,111.8	1,176.6	1,256.5	1,309.4	1,351.0	1,369.6	1,404.8	353.9	33.7%	24%
Montgomery County (1)	500.0	510.0	547.0	590.0	631.5	673.0	703.0	723.0	223.0	44.6%	14.9%
Rockville (2)	76.6	79.1	85.1	92.0	98.3	100.8	103.8	106.8	30.2	39.4%	2.0%
Gaithersburg (2)	48.8	51.1	57.2	67.3	77.8	84.2	90.7	99.0	50.2	103.0%	3.4%
Prince George's County	347.9	362.9	379.4	399.2	424.4	454.9	488.9	524.3	176.4	50.7%	11.8%
Fairfax County (3)	602.0	661.8	714.5	754.4	791.4	819.7	845.9	871.3	269.3	44.7%	18.0%
City of Fairfax (4)	26.1	27.3	28.7	30.6	32.4	34.0	35.7	37.5	11.4	43.7%	0.8%
City of Falls Church	9.5	11.8	14.0	15.5	16.5	16.9	17.3	17.6	8.1	85.3%	0.5%
Inner Suburbs	1,485.5	1,573.8	1,683.5	1,789.7	1,896.2	1,998.5	2,090.9	2,173.7	688.2	46.3%	46%
Loudoun County	130.3	158.8	189.4	227.5	255.7	275.2	291.1	304.9	174.6	134.0%	11.7%
Prince William County	113.6	123.1	143.1	164.2	185.7	207.0	222.6	245.3	131.7	115.9%	8.8%
City of Manassas	23.3	24.6	27.3	28.8	30.3	31.8	33.3	34.8	11.5	49.1%	0.8%
City of Manassas Park	3.0	4.5	4.6	4.7	4.8	4.9	5.0	5.1	2.2	73.0%	0.1%
Calvert County (5)	32.4	35.2	41.1	44.5	46.3	47.2	48.1	49.0	16.6	51.1%	1.1%
Charles County (5)	58.6	62.2	68.4	71.7	74.7	77.5	80.3	83.1	24.5	41.9%	1.6%
Frederick County	122.2	142.4	151.5	158.3	163.5	167.3	171.1	175.1	52.9	43.3%	3.5%
Stafford County (6)	36.9	42.8	48.6	54.5	60.4	65.0	69.6	74.5	37.6	101.9%	2.5%
Outer Suburbs	520.2	593.7	674.0	754.1	821.4	875.9	921.1	971.8	451.5	86.8%	30%
Northern Virginia	1,245.4	1,378.3	1,531.6	1,675.8	1,791.6	1,883.0	1,958.5	2,036.5	791.2	63.5%	53.0%
Suburban Maryland	1,061.0	1,112.7	1,187.3	1,263.7	1,340.4	1,419.9	1,491.5	1,554.5	493.5	46.5%	33.0%
MSA REGIONAL TOTAL	3,056.7	3,279.2	3,534.1	3,800.4	4,027.1	4,225.4	4,381.5	4,550.3	1,493.6	48.9%	100.0%

Fairfax County, Montgomery County, and the District of Columbia would add the largest numbers of new jobs to the region's employment base during the 2005 to 2040 forecast period, followed by Prince George's and Loudoun counties.

Collectively, the region's inner suburbs will add the largest number of new jobs, 688,200, by 2040. As with population and household growth, the largest percentage increases in employment will occur in the outer suburbs of Virginia and Maryland. Together, these outer jurisdictions will add 451,500 jobs to the region's base, and will grow their number of jobs 86 percent by 2040. Despite the tremendous growth in suburban employment shown in the forecasts, the District of

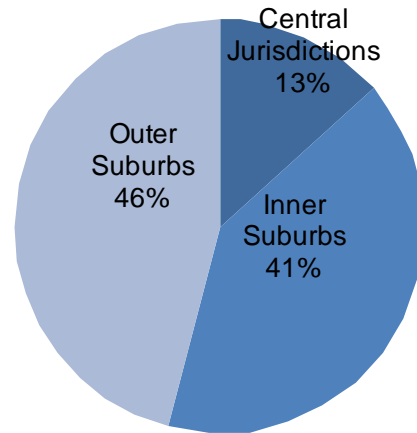
Columbia will continue to have the largest number of jobs of any single jurisdiction and would account for a fifth of the region's employment in 2030. Collectively, the central jurisdictions will account for 24 percent of regional employment.

The addition of more than 657,000 households during the 2005 to 2030 forecast period reflects the growth in jobs and in-migration to the region. The largest number of new households will be in Fairfax, Montgomery, and Loudoun counties, and the District of Columbia, which collectively contribute more than half of the household growth during the forecast period. Loudoun County will grow at a rate of 90 percent, the most rapidly of all jurisdictions, adding 78,400 households to the 2005 base of 87,500 households.

Households

Regional Share of Population Growth

Regional economic growth will continue to attract new residents and fuel a general demand for new housing. Households, or occupied housing units, in turn form the basis for population forecasts for most jurisdictions participating in the Cooperative Forecasting process. Planners monitor housing construction and estimate population growth by multiplying the number of occupied housing units by the average number of people in the jurisdictions' households.



Summary of Intermediate Household Forecasts Round 7.2A Cooperative Forecasts

JURISDICTION	2005	2010	2015	2020	2025	2030	2035	2040	Number	% Change	Share
District of Columbia	253.4	276.0	295.2	313.1	324.0	335.2	346.3	360.0	106.6	42.1%	13.1%
Arlington County	92.2	99.9	108.9	116.1	119.0	120.9	121.2	122.4	30.2	32.7%	3.7%
City of Alexandria	66.3	70.4	73.1	77.2	81.8	86.1	89.8	93.0	26.7	40.2%	3.3%
Central Jurisdictions	411.9	446.3	477.3	506.4	524.9	542.2	557.2	575.4	163.5	39.7%	20.2%
Montgomery County (1)	347.0	362.0	386.0	408.0	425.2	440.4	451.4	460.0	113.0	32.6%	13.9%
Rockville (2)	22.5	23.7	25.9	27.7	29.3	30.8	32.3	33.8	11.3	50.3%	1.4%
Gaithersburg (2)	21.7	22.3	24.3	27.1	30.9	33.9	36.7	39.7	18.0	83.2%	2.2%
Prince George's County	306.0	317.9	331.2	344.8	356.8	367.8	375.6	380.4	74.4	24.3%	9.2%
Fairfax County	375.8	387.9	409.5	429.4	447.6	462.9	474.3	486.0	110.2	29.3%	13.6%
City of Fairfax (3)	8.4	8.6	8.8	9.1	9.4	9.7	10.0	10.3	1.9	22.6%	0.2%
City of Falls Church	4.6	5.5	6.2	6.4	6.5	6.7	6.9	7.1	2.5	54.3%	0.3%
Inner Suburbs	1,041.9	1,081.9	1,141.7	1,197.7	1,245.5	1,287.5	1,318.2	1,343.8	302.0	29.0%	37.2%
Loudoun County	87.5	101.7	114.2	133.8	148.7	155.9	161.1	164.7	77.2	88.3%	9.5%
Prince William County	118.9	138.5	154.4	168.8	181.3	191.8	200.4	207.3	88.4	74.3%	10.9%
City of Manassas	12.8	14.1	14.8	15.5	16.3	17.1	17.8	18.6	5.7	44.8%	0.7%
City of Manassas Park	4.2	5.0	5.3	5.4	5.4	5.4	5.4	5.4	1.2	28.0%	0.1%
Calvert County (4)	29.9	32.0	34.3	36.0	37.4	38.3	39.3	40.3	10.4	34.8%	1.3%
Charles County (4)	47.4	51.0	57.5	64.3	70.8	75.9	80.9	85.9	38.5	81.0%	4.7%
Frederick County	79.5	87.7	95.9	104.1	112.5	123.1	134.8	147.5	68.0	85.6%	8.4%
Stafford County (5)	30.7	41.4	52.1	59.0	65.9	72.7	79.4	86.8	56.1	182.8%	6.9%
Outer Suburbs	411.0	471.4	528.5	587.0	638.2	680.2	719.1	756.5	345.5	84.1%	42.6%
Northern Virginia	801.5	873.0	947.3	1,020.7	1,081.9	1,129.1	1,166.2	1,201.6	400.1	49.9%	49.3%
Suburban Maryland	809.9	850.6	905.0	957.3	1,002.7	1,045.6	1,082.0	1,114.1	304.2	37.6%	37.5%
MSA REGIONAL TOTAL	1,864.7	1,999.6	2,147.5	2,291.0	2,408.6	2,509.9	2,594.5	2,675.7	810.9	43.5%	100.0%

Population

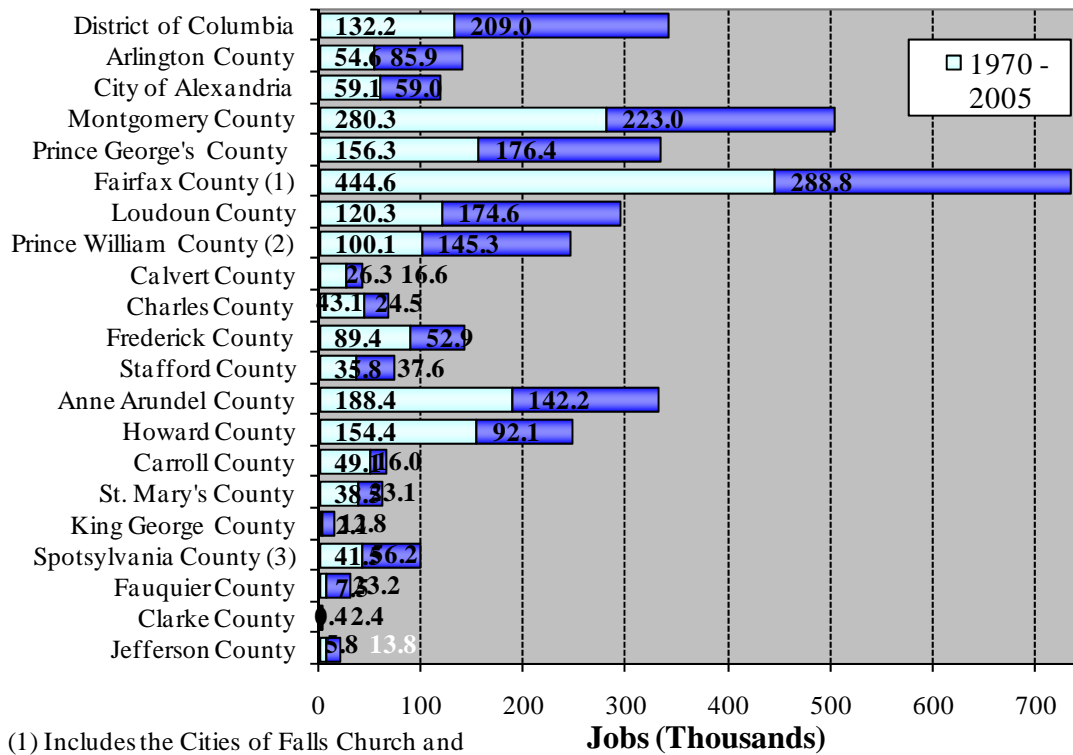
The region's population is expected to grow steadily through the forecast period, adding an average of approximately 69,000 persons a year. Population will be spurred by the long-term strength of the region's economy, high rates of in-migration and international immigration, and declines in average household size less rapid than previously anticipated. The region's population 65 years of age and older will more than double from 2000 to 2030, while the number of children will increase by about 30 percent during the period.

Most of the population growth will be in Fairfax, Montgomery, and Prince William counties. The outer jurisdictions will experience the fastest rates of growth, led by Stafford (136 percent), Loudoun (85 percent), and Frederick (84 percent) counties. The region's central jurisdictions will grow more slowly. In the City of Alexandria and Arlington County, population will increase by 31 and 24 percent, respectively. The District of Columbia will experience an end of short-term population loss and will grow by 36 percent during the forecast period.

Summary of Intermediate Population Forecasts Round 7.2A Cooperative Forecasts

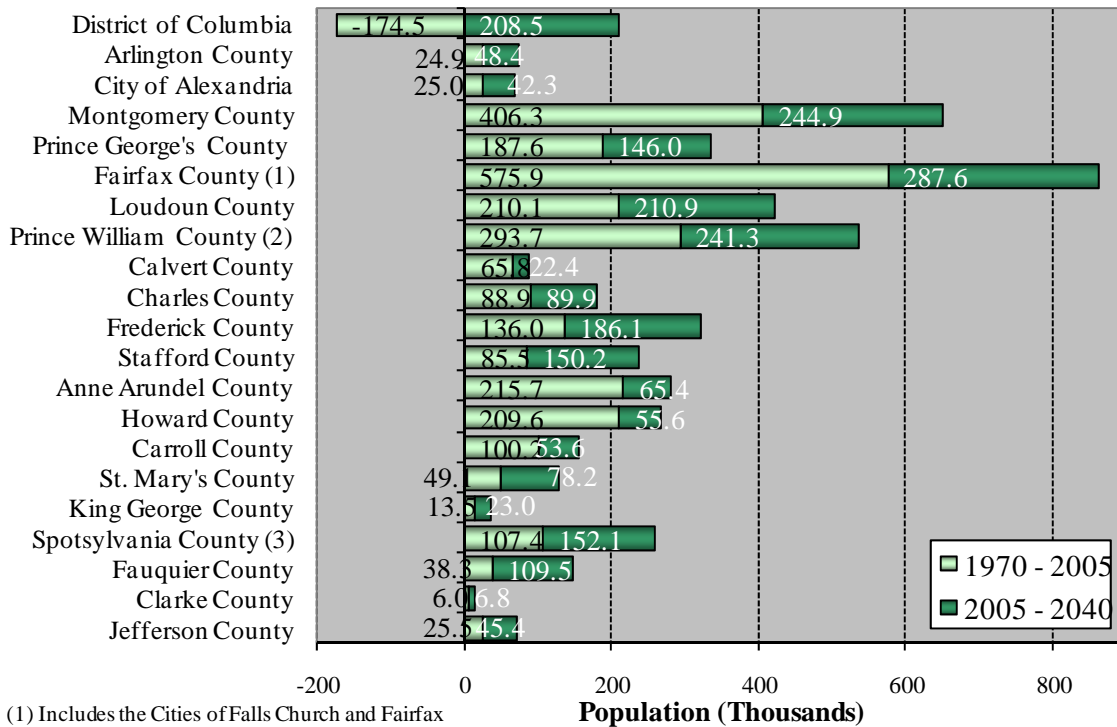
JURISDICTION	2005	2010	2015	2020	2025	2030	2035	2040	% Change		Share
									Number		
District of Columbia	582.2	610.7	640.3	679.0	715.7	735.9	760.4	790.7	208.5	35.8%	11.1%
Arlington County	199.2	211.4	226.8	238.0	242.4	245.3	245.7	247.6	48.4	24.3%	2.6%
City of Alexandria	135.9	142.4	147.2	154.1	161.7	166.7	172.8	178.1	42.3	31.1%	2.3%
Central Jurisdictions	917.2	964.6	1,014.3	1,071.1	1,119.8	1,147.8	1,178.9	1,216.4	299.2	32.6%	15.9%
Montgomery County (1)	929.1	966.0	1,025.0	1,075.0	1,113.5	1,142.0	1,161.0	1,174.0	244.9	26.4%	13.0%
Rockville (2)	59.6	62.1	66.8	70.6	74.0	76.8	79.9	83.1	23.5	39.5%	1.3%
Gaithersburg (2)	57.2	58.8	63.9	70.0	78.3	85.0	91.2	98.0	40.9	71.5%	2.2%
Prince George's County	849.3	872.0	899.2	924.8	945.7	966.9	985.1	995.4	146.0	17.2%	7.8%
Fairfax County (3)	1,029.7	1,058.8	1,109.8	1,157.6	1,200.8	1,237.1	1,264.3	1,308.4	278.6	27.1%	14.8%
City of Fairfax (4)	22.7	23.2	23.8	24.6	24.9	25.2	26.0	27.3	4.6	20.3%	0.2%
City of Falls Church	10.6	12.3	13.5	13.8	14.0	14.3	14.6	15.0	4.4	41.5%	0.2%
Inner Suburbs	2,841.5	2,932.3	3,071.3	3,195.8	3,298.9	3,385.5	3,451.0	3,520.1	678.6	23.9%	36.1%
Loudoun County	247.3	288.6	322.4	375.6	416.7	436.6	449.9	458.2	210.9	85.3%	11.2%
Prince William County	354.3	412.4	451.4	486.1	515.9	541.2	562.3	579.4	225.1	63.5%	12.0%
City of Manassas	37.6	40.4	41.8	43.3	44.9	46.5	48.1	49.7	12.1	32.1%	0.6%
City of Manassas Park	12.9	15.0	15.8	16.5	16.7	16.8	16.9	17.0	4.2	32.3%	0.2%
Calvert County (5)	86.5	91.7	96.5	100.4	103.3	105.1	107.0	108.9	22.4	25.9%	1.2%
Charles County (5)	136.6	145.0	161.0	177.2	193.1	204.2	215.3	226.5	89.9	65.8%	4.8%
Frederick County	220.9	243.2	265.6	287.9	310.4	339.7	371.8	406.9	186.1	84.2%	9.9%
Stafford County (6)	110.1	133.2	156.2	177.0	197.7	218.0	238.2	260.3	150.2	136.4%	8.0%
Outer Suburbs	1,206.1	1,369.4	1,510.6	1,664.1	1,798.7	1,908.0	2,009.4	2,106.9	900.8	74.7%	48.0%
Northern Virginia	2,160.3	2,337.6	2,508.7	2,686.7	2,835.8	2,947.6	3,038.8	3,141.0	980.7	45.4%	52.2%
Suburban Maryland	2,222.4	2,317.9	2,447.2	2,565.4	2,665.9	2,757.8	2,840.2	2,911.7	689.4	31.0%	36.7%
MSA REGIONAL TOTAL	4,964.8	5,266.3	5,596.2	5,931.1	6,217.4	6,441.3	6,639.4	6,843.4	1,878.6	37.8%	100.0%

Historic and Forecast Employment Growth for Jurisdictions in the TPB Modeled



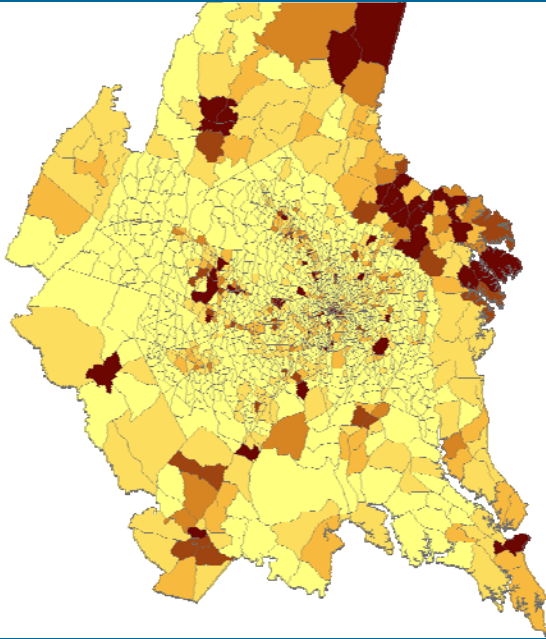
(1) Includes the Cities of Falls Church and Fairfax
 (2) Includes the Cities of Manassas and

Historic and Forecast Population Growth for Jurisdictions in the TPB Modeled

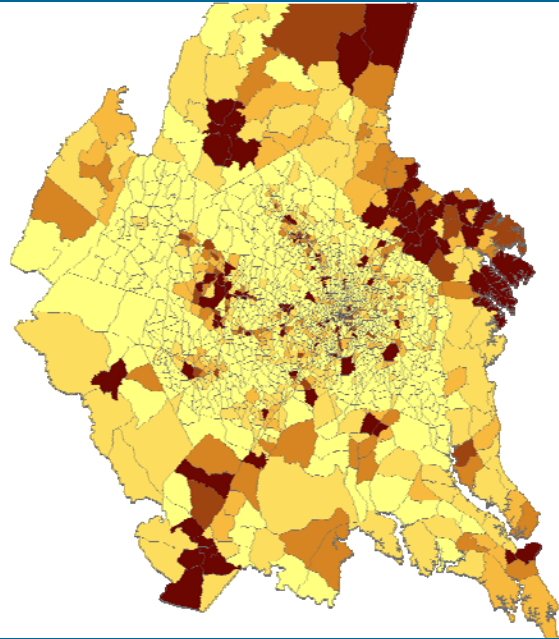


(1) Includes the Cities of Falls Church and Fairfax
 (2) Includes the Cities of Manassas and Manassas Park

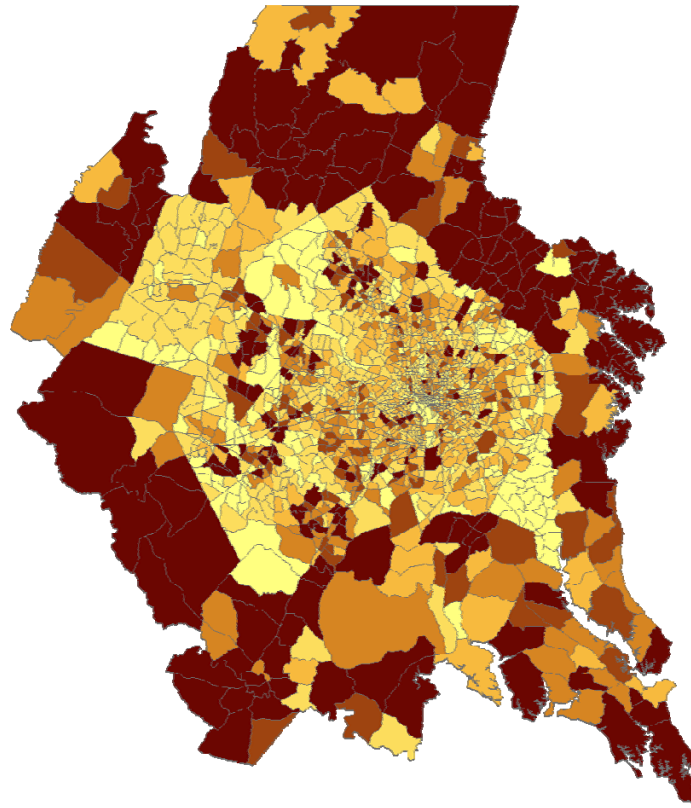
Employment 2005



Employment 2020









Employment 2040

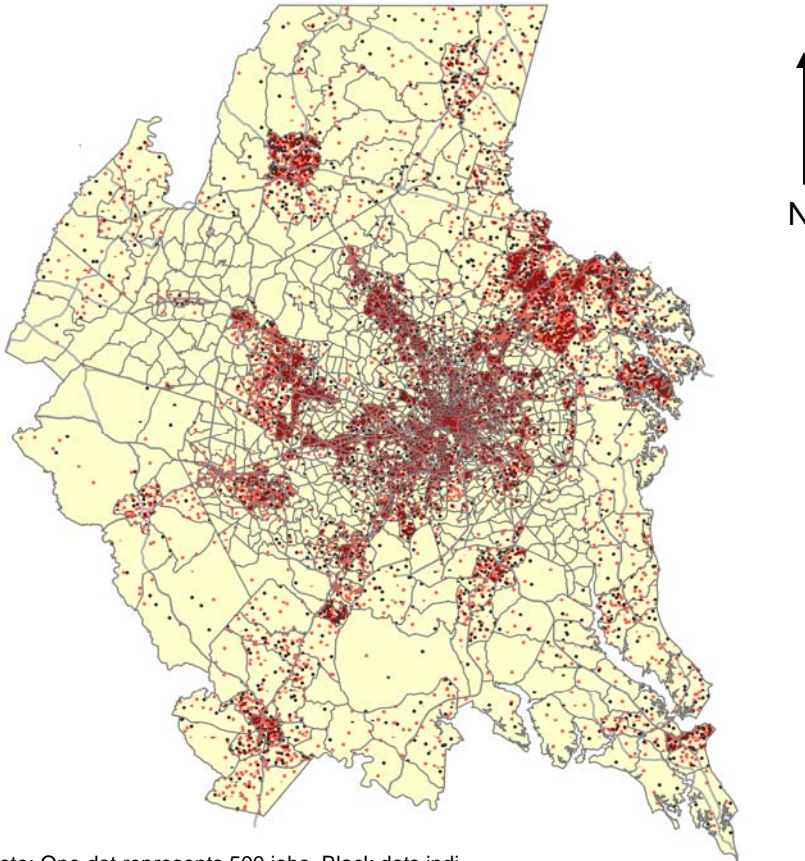


Legend

Round 7.2A

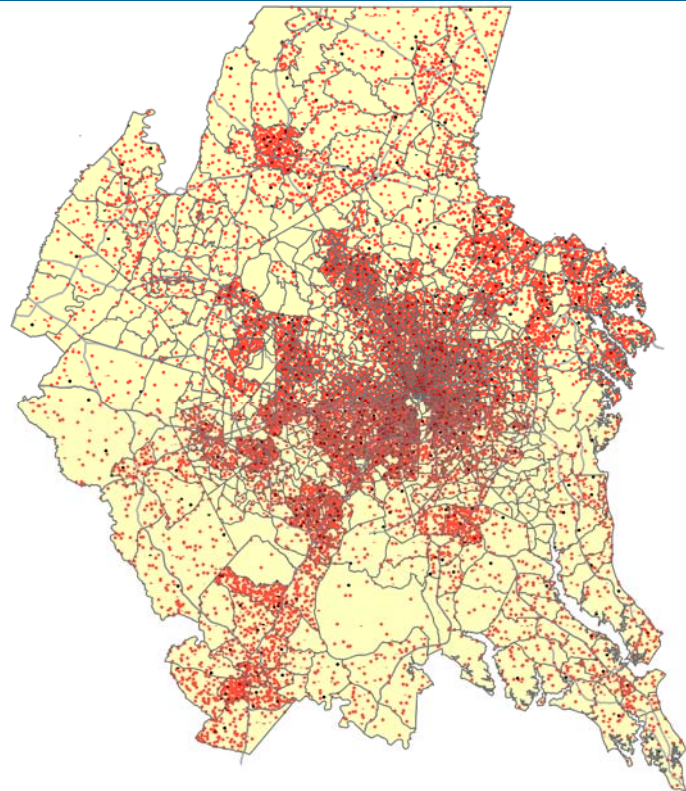
-  Less than 1000
-  1000 - 2999
-  3000 - 4999
-  5000 - 6999
-  7000 - 8999
-  9000 +

Employment Growth Areas 2005-2040



Note: One dot represents 500 jobs. Black dots indicate 2005 employment, red dots indicate 2005 to 2040 employment growth. Source: Round 7.2A Cooperative Forecasts

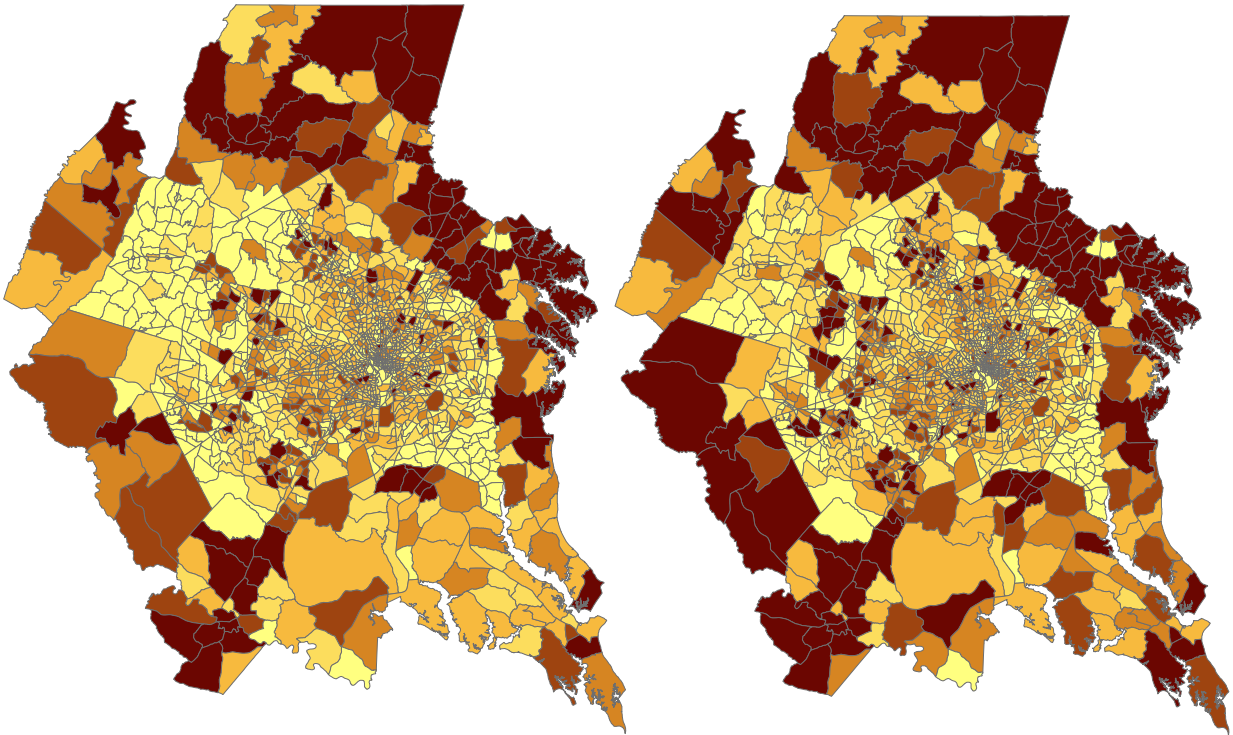
Population Growth Areas 2005-2040



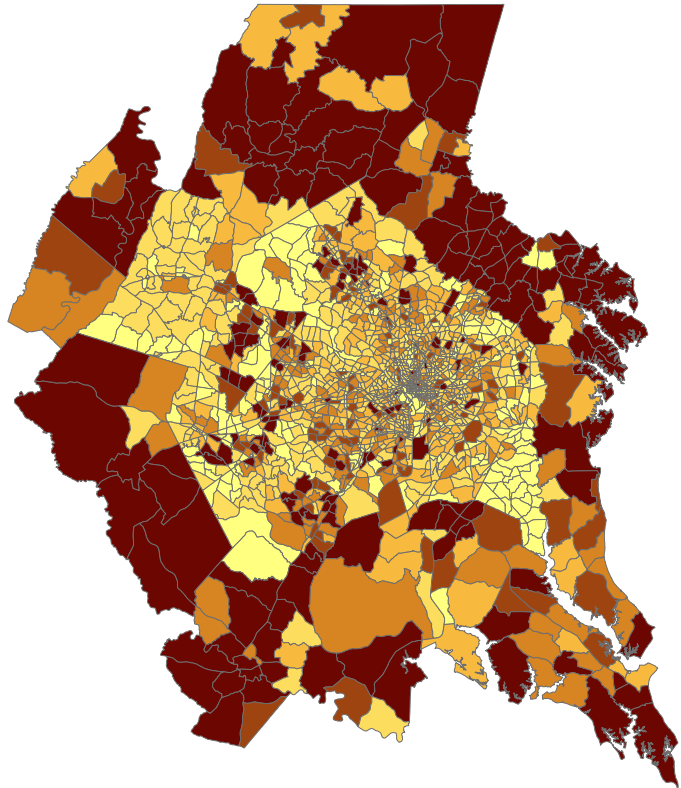
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Population 2005

Population 2020









Population 2040

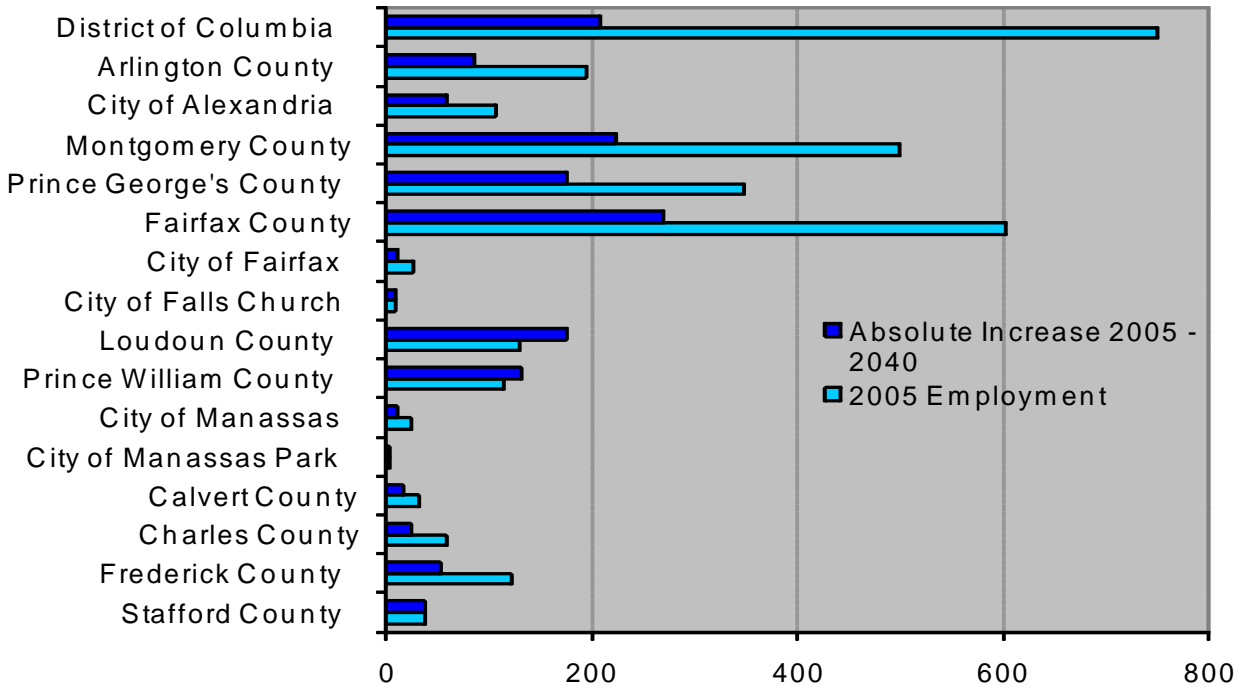


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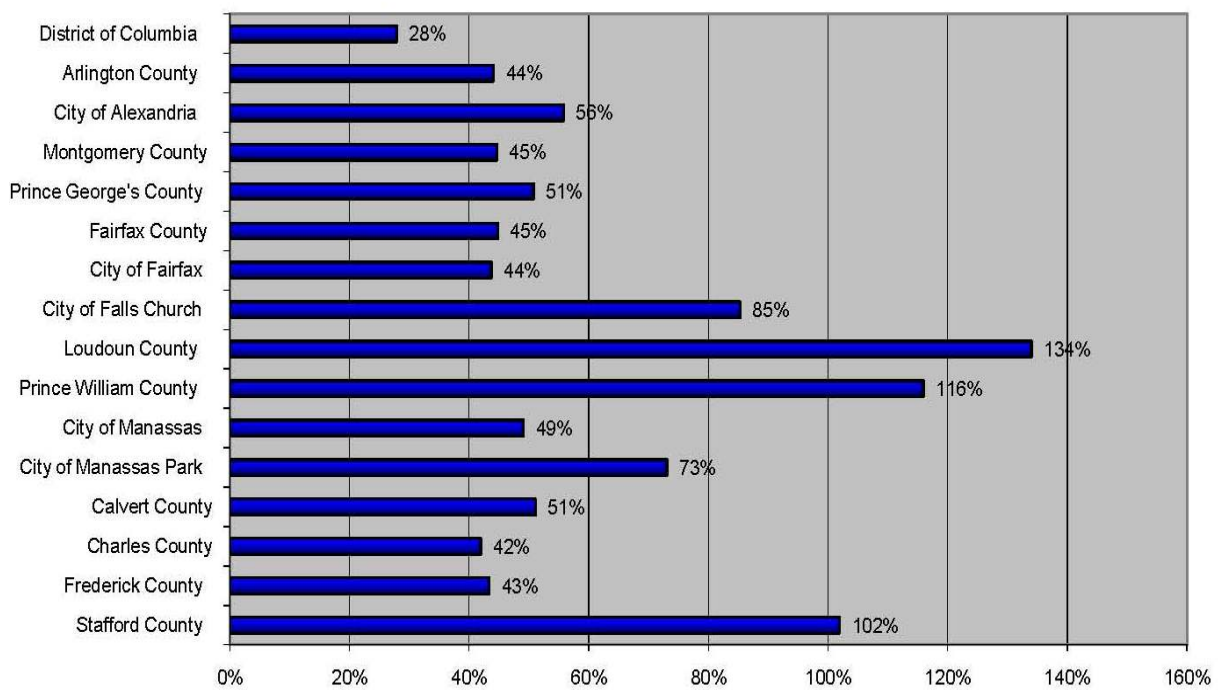
Round 7.2A

-  Less than 1000
-  1000 - 2999
-  3000 - 4999
-  5000 - 6999
-  7000 - 8999
-  9000 +

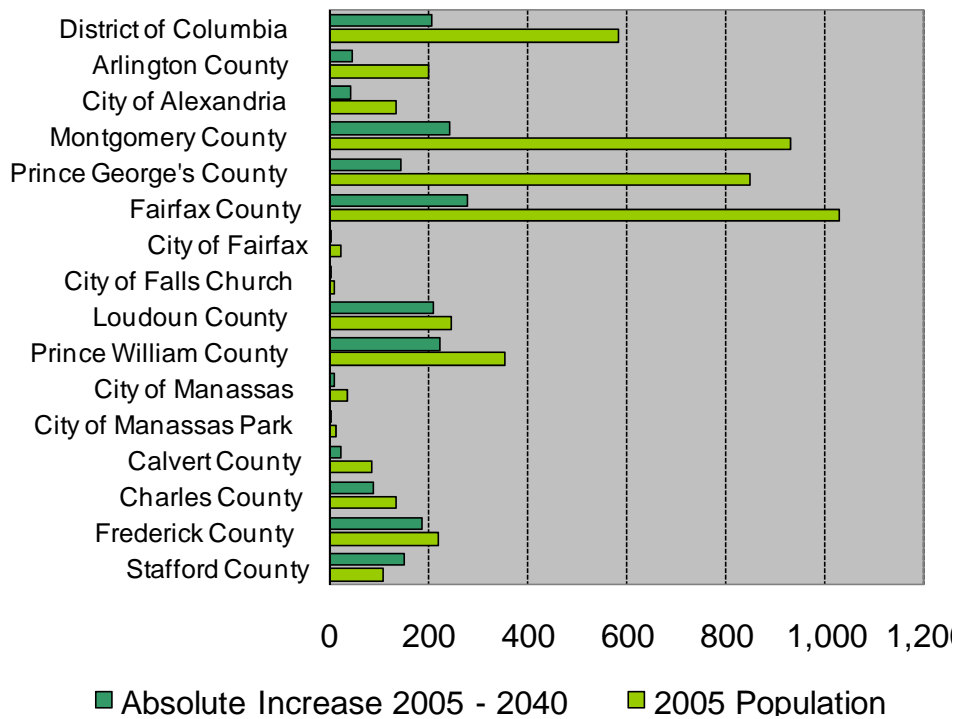
Employment Growth by Jurisdiction



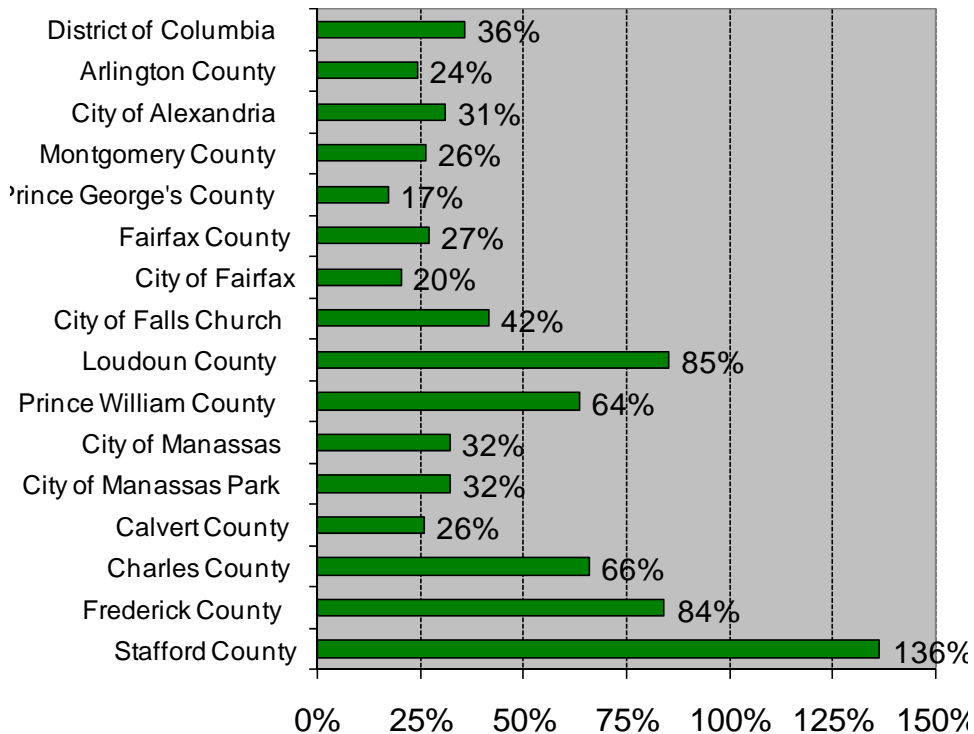
Percent Employment Growth by Jurisdiction



Population Growth by Jurisdiction

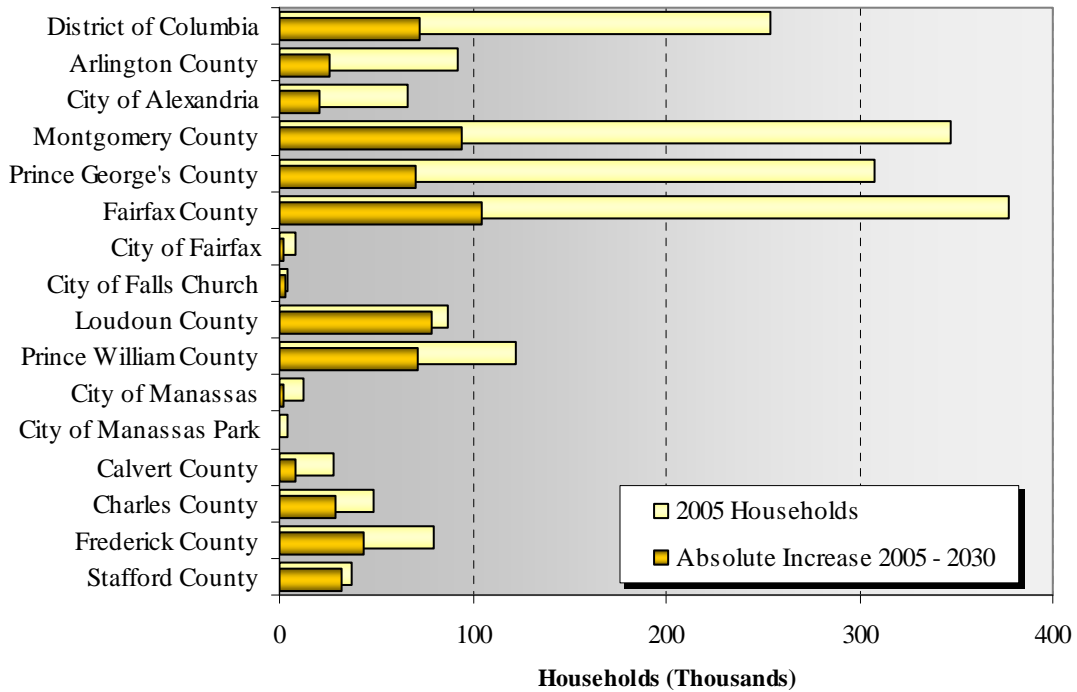


Percent Population Growth by Jurisdiction

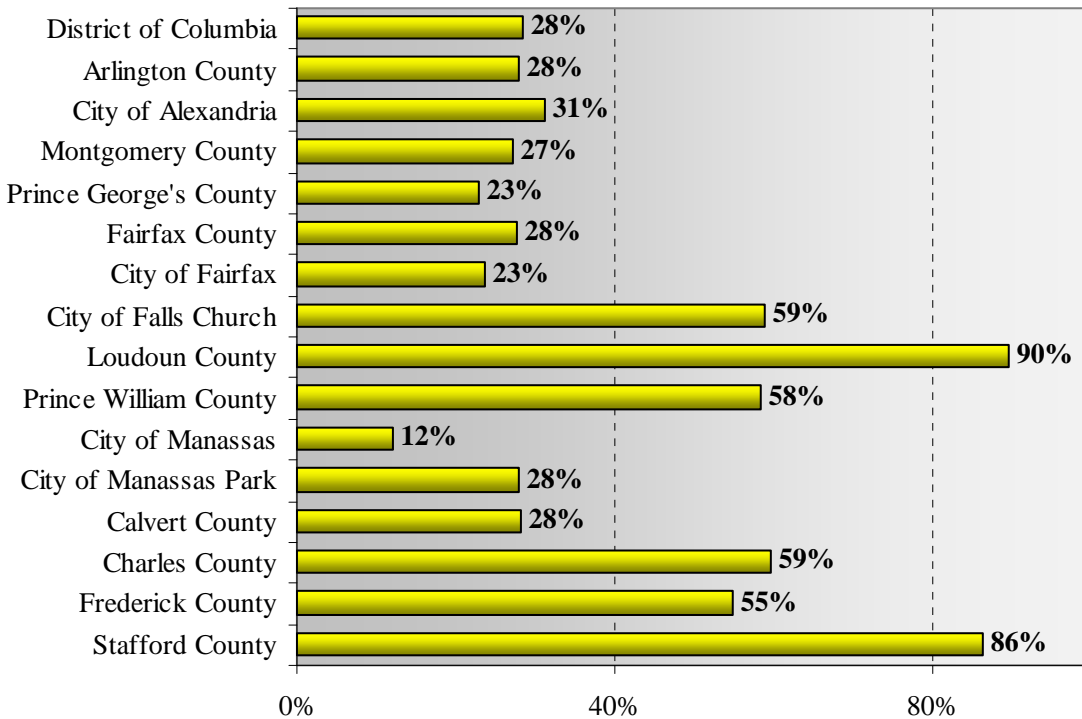


Household Growth by Jurisdiction

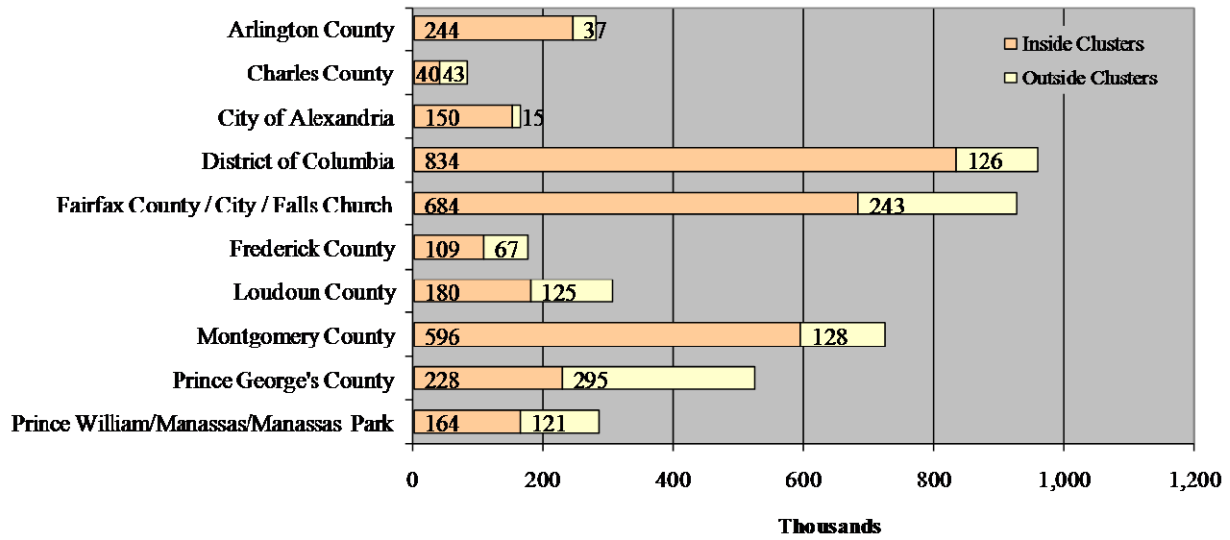
2005 Household and Forecast 2005 - 2040



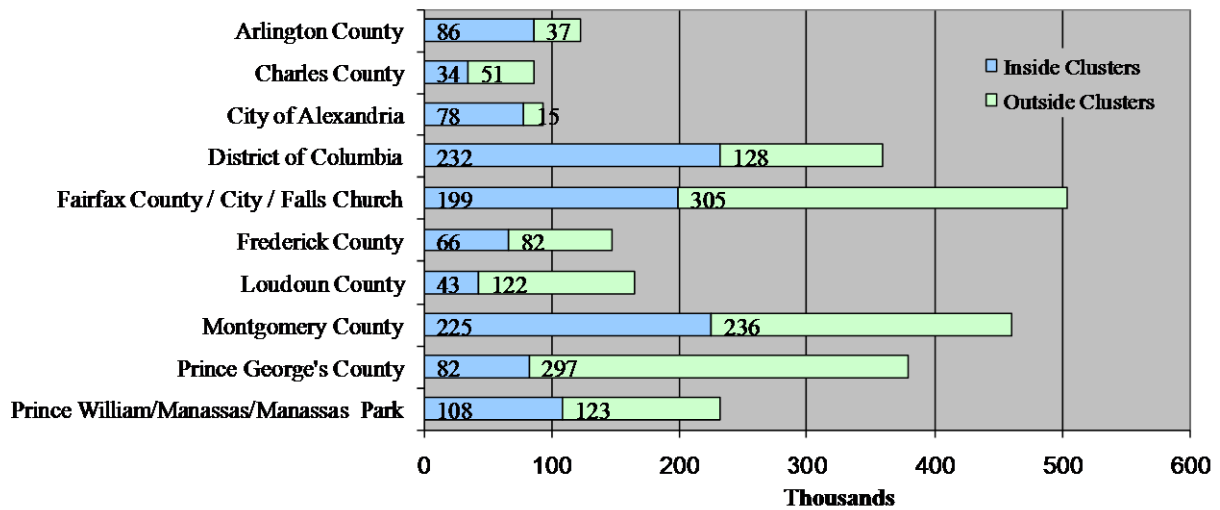
Percent Household Growth by Jurisdiction



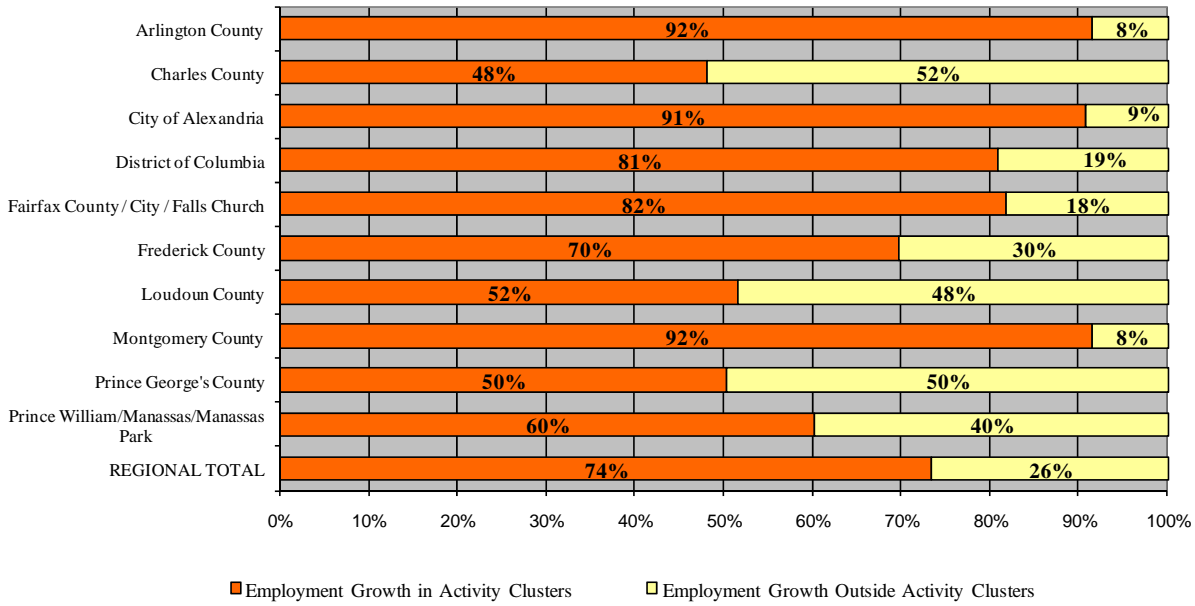
Round 7.2A Employment in Activity Clusters by Jurisdiction in 2040



Round 7.2A Households in Activity Clusters by Jurisdiction in 2040



Round 7.2A Percent of Employment Growth Between 2005 and 2040 Occurring in Activity Clusters



Regional Activity Clusters

Regional activity clusters are based on aggregated regional activity centers that were delineated to both simplify the regional activity center map and to describe the related or companion areas within the major transportation corridors. Clusters were created by selecting the Traffic Analysis Zones (TAZ) that are directly adjacent to the activity centers with special consideration given to those TAZs that follow major transportation corridors.

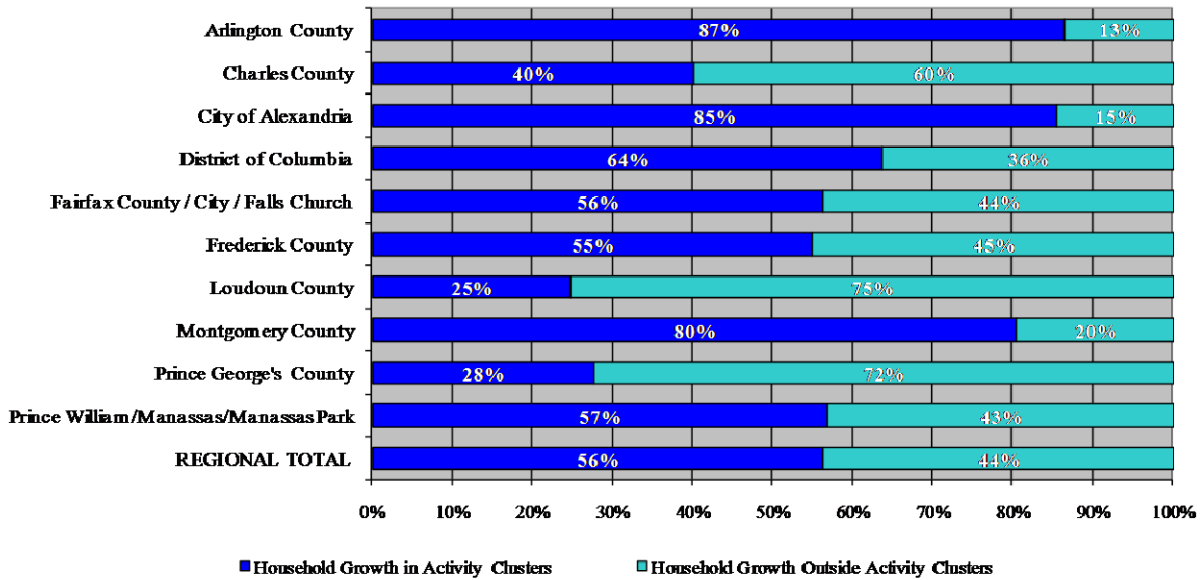
In 2005, 73 percent of the region's jobs were located in regional activity clusters. During the 2005 to 2040 forecast period, 74 percent of job growth will be concentrated in activity clusters. The highest percentages of jobs located in regional activity clusters in 2040 will be found in the Central Jurisdictions; the City of Alexandria (91 percent), the District of Columbia (87 per-

cent), and Arlington County (87 percent).

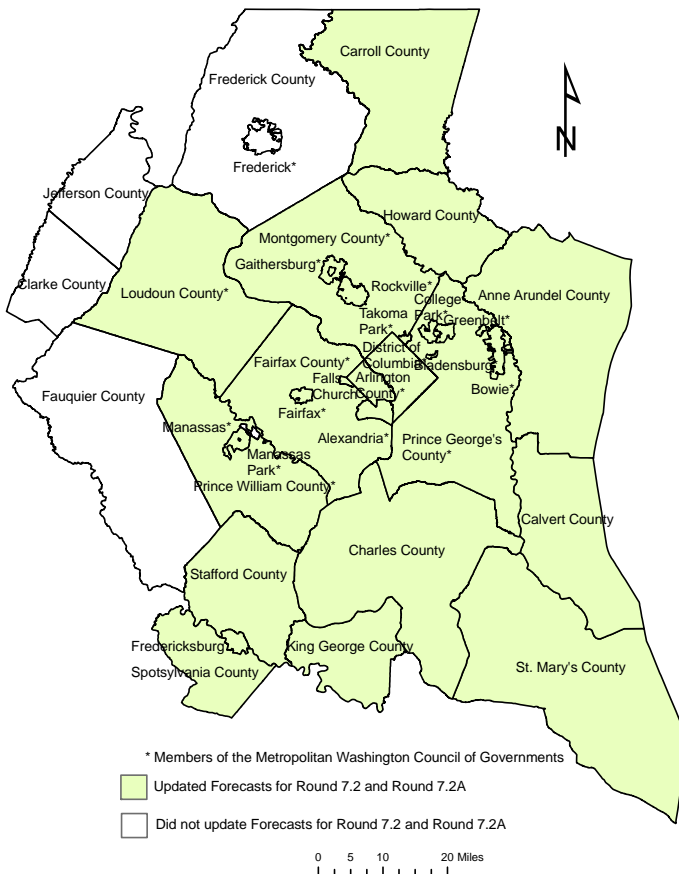
Households in regional activity clusters account for 41 percent of the region's total households in 2005. From 2005 to 2040, 56 percent of the household growth is projected to occur in regional activity clusters. In 2040 the highest percentages of households located in regional activity clusters will be in the Central Jurisdictions; City of Alexandria (84 percent), Arlington County (70 percent), and the District of Columbia (64 percent).

Note: Regional Activity Clusters analysis is based on cluster boundaries derived from the Round 7.0 Regional Activity Centers (April 2007.) For more information on regional activity centers and clusters go to <http://www.mwco.org/planning/planning/activitycenters/>.

Round 7.2A Percent of Household Growth Between 2005 and 2040 Occurring in Regional Activity Clusters



Jurisdictions Updating Their Forecasts for Round 7.2 and Round 7.2A



The Metropolitan Washington Council of Governments (COG) is the regional organization of the Washington area's major local governments and their governing officials. COG works toward solutions to such regional issues as growth, transportation, inadequate housing, air pollution, water supply, water quality, economic development, and noise, and serves as the regional planning organization for the metropolitan Washington region.

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