

COOPERATIVE FORECASTING PROGRAM: BACKGROUND AND DRAFT ROUND 8.2 ESTIMATES

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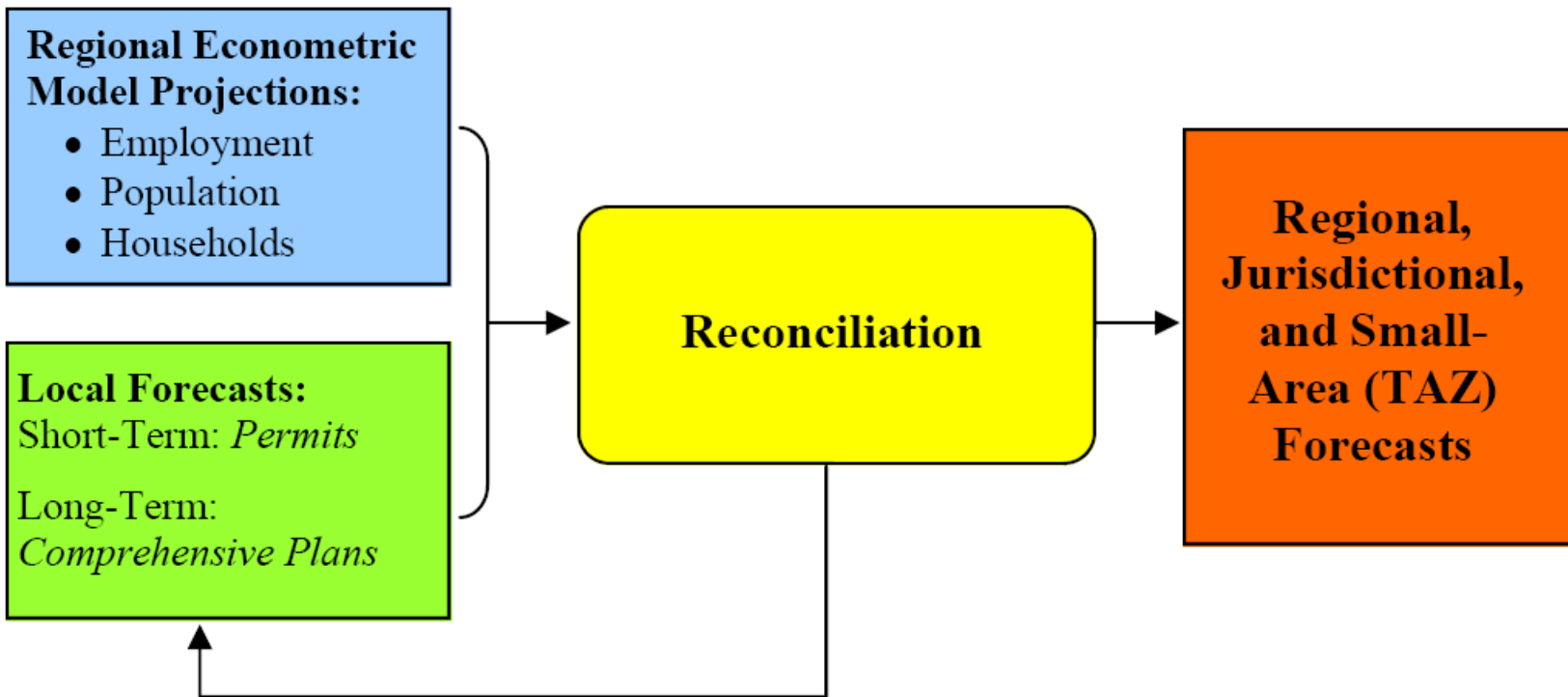
Cooperative Forecasting Program

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- Provides consistent local and regional household, population and employment projections based on common assumptions about future growth
 - ▣ Established by COG in 1975
 - ▣ Prepared under the direction of the Planning Directors Technical Advisory Committee (PDTAC)
 - ▣ Reviewed and approved by the COG Board
 - ▣ Official local government projections
- Inputs for transportation, water and air quality modeling by COG and TPB, local government planning, and private sector market analysis
- Major series or “Round” approximately every 4 years

Cooperative Forecasting Process

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Annual Updates

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- **COG Board policy** (*since 1992, ISTEA and CAA*) **which permits – but DOES NOT REQUIRE – annual updates (8.1, 8.2, etc.)**
 - ▣ Local governments review and explicitly consider major federally-funded transportation facilities to document their likely land use impacts
 - ▣ Annual process also captures local land use and comprehensive plan changes

Cooperative Forecasting History

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- **ROUND 1 - 1976**
- **ROUND 2 - 1979**
- **ROUND 3 - 1983**
- Round 3.5 - 1985 Update
- **ROUND 4 - 1987**
- Round 4-1 - 1991
- **ROUND 5 - January 1994**
- Round 5.1 - May 1994
- Round 5.2 - 1995
- Round 5.3 - 1996
- Round 5.4 - 1997
- **ROUND 6a - 1998**
- Round 6.1 - 1999
- Round 6.2 - 2000
- Round 6.3 - 2003
- Round 6.4 - *Never Adopted*
- Round 6.4A - 2004
- **ROUND 7.0 - 2005**
- Round 7.0a - 2006
- Round 7.1 - 2008
- Round 7.2 - 2009
- Round 7.2A - 2009
- **ROUND 8.0 - 2010**
- Round 8.0a - 2011
- Round 8.1 - 2012

Regional Econometric Model Projections

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- **Top Down:** Benchmark projections of future growth are generated from an econometric model that predicts the total amount of growth that the region as a whole can expect over a 30-year forecasting period.
 - For Round 8, regional benchmark projections were generated from a comprehensive econometric model developed by IHS Global Insight, a private sector firm that provides economic forecasting and analysis services to more than 3,800 clients in industry, finance and government.
 - The IHS Global Insight econometric model incorporates nearly 2,000 economic, financial, and demographic factors in generating its projections. Each region of the US is modeled individually and then linked into a national system.
 - The IHS Global Insight model provides 5-to-30 year regional projections for:
 - Employment by industry sector (NAICS)
 - Population by age group
 - Households by household head age group
 - Projections of total regional employment are generated by multiplying IHS Global Insight projections of wage and salary employment projections by a factor developed from US Census data to account for self-employed workers who are not included in the econometric model projections

Local Forecasts

- **Bottom Up:** Jurisdictional and small-area TAZ-level employment, household, and population forecasts are prepared independently by local planning staff in each COG member jurisdiction for the 30-year forecasting period.
 - Short-term local forecast are based on:
 - Current construction, building permits, approved development plans, rezoning applications
 - Longer-term local forecasts are based on:
 - Adopted and approved area master plans, jurisdictional comprehensive or general plans, current zoning capacity and past and current trends in market absorption rates.
 - COG staff also provide local planning staff with current small area employment data files and Census data at the Transportation Analysis (TAZ) level to assist in the development of local jurisdiction base year estimates.
 - Local jurisdictions describe their methodology and the assumptions made in preparing their local forecasts as part of the Cooperative Forecasting process

Reconciliation

- **Reconciliation:** Local planners working through COG's Cooperative Forecasting Subcommittee reconcile the regional sum of the independently prepared local forecasts with the regional projections from econometric model.
 - ▣ Subcommittee members carefully review the forecasts of each jurisdiction and have the opportunity to question the reasonableness of methodology and assumptions used to prepare these forecasts.
 - ▣ Assumptions regarding the regional balance of households, workers, jobs and in-commuting from outside the region are reviewed for reasonableness.
 - *In Round 7, an additional 130,000 households were added to the local forecasts*
 - ▣ Reconciliation and modification of the local forecasts continue until the sum of local government forecasts are within about 3 percent of the econometric model projections

How Accurate Have the Household and Population Forecasts Been?

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Households					
Jurisdiction:	Round 4.1 1990 Base Year	Round 4.1 2010 Forecast Year	Forecast % Growth	Actual % Growth	Actual Growth 1990 - 2010
District of Columbia	259,300	264,800	2%	3%	7,400
Arlington Co., VA	81,400	96,000	18%	21%	16,700
City of Alexandria, VA	56,400	72,100	28%	21%	11,700
Montgomery Co., MD	280,000	371,000	33%	29%	81,000
Prince George's Co., MD	262,900	337,000	28%	16%	41,100
Fairfax Co., VA	259,600	448,200	73%	54%	139,900
Loudoun Co., VA	31,000	77,400	150%	237%	73,600
Prince William Co., VA	64,500	142,700	121%	129%	83,300
Frederick Co., MD	53,100	92,500	74%	60%	31,700
Charles Co., MD	33,600	58,500	74%	52%	17,400
Total	1,381,800	1,960,000	42%	36%	503,800
Population					
Jurisdiction:	Round 4.1 1990 Base Year	Round 4.1 2010 Forecast Year	Forecast % Growth	Actual % Growth	Actual Growth 1990 - 2010
District of Columbia	628,300	627,700	0%	-4%	-26,600
Arlington Co., VA	167,000	178,800	7%	24%	40,600
City of Alexandria, VA	111,100	135,000	22%	26%	28,900
Montgomery Co., MD	710,000	820,000	15%	37%	261,600
Prince George's Co., MD	718,400	840,900	17%	20%	145,000
Fairfax Co., VA	825,800	1,028,400	25%	32%	265,700
Loudoun Co., VA	89,800	210,900	135%	248%	222,500
Prince William Co., VA	277,000	390,200	41%	64%	177,100
Frederick Co., MD	149,100	243,600	63%	57%	84,300
Charles Co., MD	103,800	161,500	56%	39%	40,800
Total	3,780,300	4,637,000	23%	33%	1,239,900

Round 4.1 Forecasts were adopted in 1991

How Accurate Have the Employment Forecasts Been?

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Jurisdiction:	Employment				
	Round 4.1 1990 Base Year	Round 4.1 2010 Forecast Year	Forecast % Growth	Actual % Growth	Actual Growth 1990 - 2010
District of Columbia	718,200	886,000	23%	9%	65,300
Arlington Co., VA	214,600	263,600	23%	4%	8,700
City of Alexandria, VA	97,300	145,200	49%	9%	8,700
Montgomery Co., MD	455,000	670,000	47%	12%	55,100
Prince George's Co., MD	311,800	473,000	52%	10%	30,800
Fairfax Co., VA	401,300	625,400	56%	69%	278,700
Loudoun Co., VA	33,800	98,300	191%	325%	109,900
Prince William Co., VA	75,500	142,900	89%	90%	68,100
Frederick Co., MD	53,100	117,500	121%	86%	45,600
Charles Co., MD	33,500	43,000	28%	86%	28,700
Total	2,394,100	3,464,900	45%	29%	699,600

Round 4.1 Forecasts were adopted in 1991

The Round 8.2 Cooperative Forecasts . . .

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- . . . second update of the Cooperative Forecasts to include results of the 2010 Census
- . . . within 3 percent of the Round 8.0 Econometric Model benchmark regional forecasts for Employment, Population, and Households
- . . . based on a Transportation Analysis Zone (TAZ) structure (COG TAZ 3,722) almost doubling the number of TAZs from the previous series
- . . . will be used by the TPB in this year's Air Quality Conformity Analysis
- . . . will be an element in analyzing the Regional Activity Centers

Employment Comparison Throughout Forecast Period

1983 MSA Region

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EMPLOYMENT (Thousands)

	2010	2015	2020	2025	2030	2035	2040
Round 8.2	3,148.8	3,344.6	3,620.4	3,863.1	4,085.7	4,278.5	4,485.4
Round 8.1	3,175.9	3,389.6	3,683.2	3,937.3	4,153.9	4,331.3	4,511.2
Change (#)	-27.1	-45.0	-62.8	-74.2	-68.2	-52.8	-25.8
Percent Change (%)	-0.9%	-1.3%	-1.7%	-1.9%	-1.7%	-1.2%	-0.6%
	↓	↓	↓	↓	↓	↓	↓

Key Trends in Employment Forecasts for Round 8.2

1983 MSA Region

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- 1.3 million new jobs forecast between 2010 and 2040
 - Central Jurisdictions will add 349,500 jobs (+32%)
 - Inner Suburbs will add 626,300 (+42%)
 - Outer Suburbs will add 360,900 (+68%)

- Job growth rate in Northern Virginia (+55%) will outpace growth anticipated in Suburban Maryland (+39%) and the District of Columbia (+25%).

- Fairfax County, Montgomery County and the District of Columbia would add the largest number of new jobs to the region, followed by Prince George's, Loudoun and Prince William Counties.

Key Trends in Population Forecasts for Round 8.2

1983 MSA Region

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- 1.7 million more people forecast between 2010 and 2040
 - Central Jurisdictions will add +292,800 people (+31%)
 - Inner Suburbs will add +659,400 (+22%)
 - Outer Suburbs will add +703,300 (+52%)

- Population growth in Northern Virginia (+40%) will outpace growth anticipated in Suburban Maryland (+24%), and the District of Columbia (+28%).

- Fairfax County, Montgomery County, and Prince William County would add the greatest number of new people to the region, followed by Loudoun County and the District of Columbia.

Household Comparison Throughout Forecast Period

1983 MSA Region

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HOUSEHOLDS (Thousands)

	2010	2015	2020	2025	2030	2035	2040
Round 8.2	1,959.5	2,093.9	2,219.8	2,348.8	2,460.8	2,560.7	2,654.9
Round 8.1	1,959.4	2,094.8	2,226.8	2,350.3	2,453.6	2,542.0	2,619.8
Change (#)	0.1	-0.9	-7.0	-1.5	7.2	18.6	35.1
Percent Change (%)	0.0%	-0.0%	-0.3%	-0.1%	0.3%	0.7%	1.3%
	↑	↓	↓	↓	↑	↑	↑

Key Trends in Household Forecasts for Round 8.2

1983 MSA Region

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Sub-region and Jurisdictional Level

- 695,000 new households between 2010 and 2040
 - Central Jurisdictions will add +130,500 (+30%)
 - Inner Suburbs +298,300 (+28%)
 - Outer Suburbs +266,600 (+58%)

- Growth in Northern Virginia (+43%) will outpace Suburban Maryland (+30%), and the District of Columbia (27%).

- Fairfax County, Montgomery County, Prince William County would add the largest numbers of new households, followed by Prince George's County and the District of Columbia.

Next Steps

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- Local jurisdictions submit Round 8.2 forecasts by transportation analysis zone (End of January 2013)
- Final approval and adoption by the COG Board in July
- COG staff, Planning Directors, Cooperative Forecasting Subcommittee continue to monitor regional and local changes for future updates
 - Comprehensive plan changes
 - Significant rezonings
 - Future development of a new econometric model
 - Regional economic trends – Impact of the “Fiscal Cliff” including sequestration