

Growth Policy Study: Appendix A – Impact Tax Issues (Resolution 16-376 F9)

Lead Staff: Jacob Sesker

Summary:

- Very limited refinement of land use categories, adding a new category that can be applied to residential uses that are urban but which are not located in a Metro Station Policy Area.
 - No new impact taxes or charges at this time.
 - Executive Branch continues to support the Affordable Housing Task Force’s recommendation to continue to study affordable housing linkage fees.
 - The Executive Branch will be making recommendations with respect to retaining, modifying or repealing certain of the impact tax law’s credit provisions.
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Resolution 16-376 F9 set forth a list of questions related to impact taxes to be addressed by the County Executive by October 1, 2008.

The County Executive, with the aid of the Planning Board and the Board of Education, must address impact tax issues noted in the long-term infrastructure financing recommendations in the Planning Board’s *2007-2009 Growth Policy*, including further refinement of land use categories and consideration of charging impact taxes for additional public facilities or purposes or charging “linkage” fees to non-residential development for affordable housing. The Executive and the interagency working group must review credits granted under the impact tax and develop recommendations to retain, modify, or repeal the law’s credit provisions.

The objective identifies 4 separate aspects of the inquiry:

- 1) Potential further refinement of land use categories
- 2) Consideration of charging impact taxes for additional public facilities or purposes
- 3) Consideration of charging linkage fees to non-residential development for affordable housing

4) Review credits granted under the impact tax and develop recommendations to retain, modify, or repeal the law's credit provisions

The Executive Branch's efforts related to these F9 studies are not yet complete. Staff has met and corresponded on multiple occasions on this topic. The preliminary staff conclusions suggest that few significant changes will be made. The Planning Department supports limited refinement of land use categories, adding one new residential category which can be applied to residential uses in urban areas which are outside of a Metro Station Policy Area. As for items 2 and 3, staff at the Planning Department and in the Executive Branch agree that while these items may be considered in the future, imposing additional charges on the development industry at this time does not make sense given the state of the economy and current levels of development activity. Staff continues to discuss potential changes to the impact tax law. Executive staff is preparing a recommendation. Upon completion of the Executive Branch report and recommendations, staff will transmit to the Planning Board a summary of the work; that summary will include Staff recommendations or commentary, as appropriate. Staff has other work products to complete on impact tax modifications for transportation and schools. These products are described as part of Appendix M.

Growth Policy Study: Appendix B - Analysis of the Current/Future Pace and Pattern of Growth (Resolution 16-376 F11)

Lead Staff: Wayne Koempel

Summary:

- Between 2009 and 2030, the County’s growth is concentrated in our strategic growth areas. Job growth is greatest in the I-270 Corridor and at Metrorail stations. Housing growth is greatest in Clarksburg, Gaithersburg, and at Metrorail stations.
 - A substantial amount of growth is already approved. The commercial pipeline contains approximately 33 million square feet (including the municipalities), which would take until roughly 2023 to absorb under forecast growth rates. The housing pipeline might similarly be expected to be absorbed by 2016.
 - Our future growth lies in the County’s urban areas. The Bethesda and Silver Spring CBDs provide a useful example of how smart growth can attract successful development and younger residents, both of which are integral to maintaining the County’s economic success.
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The analysis of the pace and pattern of growth consists of three elements:

- Section 1 contains a description of the MWCOG Cooperative forecasts
- Section 2 describes the growth in our current pipeline
- Section 3 provides a comparison of how demographics over the past 20 years in the urbanizing Bethesda and Silver Spring Central Business Districts have compared to growth in the rest of the County.

1. COOPERATIVE FORECASTS

The Region’s employment, household, and population forecasts are prepared under the umbrella of the Metropolitan Washington Council of Governments (COG). For every new

forecast round, COG produces Regional employment, household, and population forecasts from an updated regional econometric and demographic model. New forecast rounds generally occur every 3 to 5 years. The latest round is the Round 7 forecast adopted by COG in 2005. COG member jurisdictions produce forecasts for their own areas. Montgomery County and the other jurisdictions are members of the COG Cooperative Forecasting and Data Subcommittee (CFDS) which meets monthly. This is a subcommittee to the COG Planning Directors Technical Advisory Committee.

The jurisdictions transmit their forecasts to COG. COG sums the jurisdictional forecasts and compares the jurisdictional totals to the Regional forecast produced by the COG econometric/demographic model. As a control to the jurisdictional forecasts, COG requires that the sum of the jurisdiction forecasts be within three percent of the COG Regional forecasts. If the sum of the jurisdictions forecasts does not fall within three percent of the COG Regional Forecasts, the CFDS must reconcile the forecasts. After reconciliation and adoption by various COG committees and finally the COG Board of Directors, the sum of the jurisdictional forecasts become the official COG Cooperative Forecasts for the Region.

Between the major forecast rounds COG gives the jurisdictions the opportunity to revise their forecasts, usually on a yearly basis. The most recent interim forecast is Round 7.2 adopted by the COG Board in July 2009. The Round 7.2 forecast has a 2005 base year and forecasts are in five-year intervals through 2040. Round 7.2 is the first forecast to go beyond 2030. The interim forecasts are also subjected to the reconciliation process described above. The Round 7.2 forecasts form the basis for the analysis described in this year's Growth Policy reports.

A Round 7.2a forecast that includes the addition of the Purple Line from Silver Spring to New Carrollton and the removal of the MD28/MD 198 widening from the Region's Constrained Long-Range Transportation Plan is going through the review process. The COG Board of Directors is scheduled to adopt Round 7.2a in October 2009. Compared to Round 7.2, Montgomery County's Round 7.2a forecast adds a small amount of employment growth and redistributes a small amount of household and population growth within the County.

A new Round 8 forecast is underway. The 5-year Regional control totals through 2040 have been produced by a new and updated econometric/demographic model. The jurisdictions are scheduled to submit their jurisdictional forecast to COG in September 2009 so that the reconciliation process can begin. From October 2009 through January 2010, the various COG committees and subcommittees will review the forecasts. Jurisdictions are scheduled to submit traffic zone forecasts to COG in February 2010. Round 8 is scheduled to be presented to the COG Board of Directors in July 2010.

The Montgomery County Planning department prepares the official employment, household, and population forecasts for Montgomery County. The Montgomery County Planning Department is Montgomery County's representative on the CFDS. The Cities of Gaithersburg and Rockville produce forecasts for their current city limits and also participate on the CFDS. The Montgomery County forecasts include the Cities. The County Planning Department and the cities coordinate on their forecasting efforts.

The jurisdictions must also produce small area forecasts at the traffic zone level that match their jurisdictional totals. The traffic zone forecasts include the following eight categories: employment in office, retail, industrial, and other uses; single-family and multi-family households; and population living in households and population living in group quarters.

The Round 8 forecast will be the first to use a new regional traffic zone system coordinated by COG with substantial input on boundary decisions from the member jurisdictions. Montgomery County has been using a traffic zone system with 318 zones. The new traffic zone system increases that number to 376 zones. Advantages of the new system include the consistency of traffic zone boundaries between COG and the County and Cities and more and smaller traffic zones will allow for better transportation modeling.

Employment Forecasts

The Round 7.2 employment forecast shows the County's employment growing by 31,100 jobs between 2000 and 2009 (Table 1). This is about 52 percent of the 60,000 employment growth the County experienced between 1990 and 2000. Over 80 percent of this growth occurred between 2000 and 2005. The County's annual employment growth rate this decade is 0.7 percent per year, compared to an annual growth rate of 1.4 percent during the 1990s. Figure 1 shows the County's 2009 employment density per acre by traffic zone. The colors and heights of the traffic zone shapes depict the density of the County's jobs in 2009, not the actual number of jobs in the traffic zones.

Between 2009 and 2030 the County's Round 7.2 employment forecast shows an increase of 164,000 jobs. In order to achieve this job growth, the County's annual employment growth rate will have to match the 1990s rate of 1.4 percent.

In the Round 7.2 forecasts, the Cities of Gaithersburg and Rockville produced their own forecasts. Their forecasts are based on the current city boundaries and do not assume any annexations. The cities forecasts are included in the Montgomery County forecasts.

In 2005, 15 percent of the County's jobs were in the City of Rockville (76,600 jobs). During the Round 7.2 forecast period, Rockville maintains its relative share of the County's jobs. In 2030, Rockville has 100,800 jobs, 15 percent of the County total.

The Round 7.2 forecast suggests that the City of Gaithersburg will become more of an employment center. In 2005, Gaithersburg had 48,800 jobs, 10 percent of the County total. By 2030, Gaithersburg expects to have 84,200 jobs, 13 percent of the County total.

Between 2000 and 2009, almost 70 percent of the County's job growth occurred in five policy areas. Rockville City had the most growth 5,500 jobs, 18 percent of the County's job growth. The R&D Village ranked second growing by 4,400 jobs (14 percent) followed by Fairland/White Oak +4,100 jobs (13 percent), Gaithersburg City +3,600 jobs (12 percent), and the Bethesda CBD +3,600 jobs (12 percent). The Metro Station Policy Areas combined grew by 7,600 jobs, 24 percent of the County's job growth.

Between 2009 and 2030, of all the Policy Areas, Gaithersburg City and Rockville City are projected to grow the most. Gaithersburg City is projected to grow by 33,400 jobs, 20 percent of the County's growth, and Rockville City is projected to grow by 23,100 jobs, 14 percent of the County's growth. The R&D Village Policy Area is projected to have the third highest growth 16,600 jobs, 10 percent of the County's growth, followed by Clarksburg +12,500 jobs (8 percent), and North Bethesda +12,200 jobs (7 percent). These five Policy Areas are projected to have almost 60 percent of the County's job growth. The Metro Station Policy Areas are projected to grow by 19,200 jobs, 12 percent of the County's job growth. Figure 2 shows the changes in employment density from 2009 to 2030. The colors and heights of the traffic zone shapes depict the density of the County's job growth, not the actual change in the number of jobs between 2009 and 2030 in the traffic zones.

Table 1
Montgomery County Employment Growth by Policy Area
Round 7.2 Cooperative At-Place Employment Forecast

Policy Areas	2000 Total Jobs	2000 to 2009 Job Growth	% Change	% of County Growth	2009 Total Jobs	2009 to 2030 Job Growth	% Change	% of County Growth	2030 Total Jobs
Aspen Hill	6,270	(69)	-1.1%	-0.2%	6,201	113	1.8%	0.1%	6,314
Bethesda CBD	32,228	3,621	11.2%	11.6%	35,849	2,760	7.7%	1.7%	38,609
Bethesda/Chevy Chase	43,480	153	0.4%	0.5%	43,633	5,930	13.6%	3.6%	49,563
Clarksburg	2,550	1,269	49.8%	4.1%	3,819	12,543	328.4%	7.6%	16,362
Cloverly	1,255	93	7.4%	0.3%	1,348	(2)	-0.1%	0.0%	1,346
Damascus	2,372	(57)	-2.4%	-0.2%	2,315	161	7.0%	0.1%	2,476
Darnestown/Travilah	903	4	0.4%	0.0%	907	10	1.1%	0.0%	917
Derwood	16,942	1,088	6.4%	3.5%	18,030	3,332	18.5%	2.0%	21,362
Fairland/White Oak	25,082	4,100	16.3%	13.2%	29,182	9,497	32.5%	5.8%	38,679
Friendship Heights	8,100	518	6.4%	1.7%	8,618	2,221	25.8%	1.3%	10,839
Gaithersburg City	49,926	3,640	7.3%	11.7%	53,566	33,446	62.4%	20.3%	87,012
Germantown East	6,797	2,021	29.7%	6.5%	8,818	8,927	101.2%	5.4%	17,745
Germantown Town Center	3,343	656	19.6%	2.1%	3,999	3,285	82.1%	2.0%	7,284
Germantown West	9,049	1,564	17.3%	5.0%	10,613	9,997	94.2%	6.1%	20,610
Glenmont	570	64	11.2%	0.2%	634	84	13.2%	0.1%	718
Goshen	1,037	(5)	-0.5%	0.0%	1,032	6	0.6%	0.0%	1,038
Grosvenor	607	(19)	-3.1%	-0.1%	588	3	0.5%	0.0%	591
Kensington/Wheaton	14,223	(180)	-1.3%	-0.6%	14,043	117	0.8%	0.1%	14,160
Montgomery									
Village/Airpark	12,668	72	0.6%	0.2%	12,740	2,960	23.2%	1.8%	15,700
North Bethesda	52,250	(497)	-1.0%	-1.6%	51,753	12,230	23.6%	7.4%	63,983
North Potomac	1,441	4	0.3%	0.0%	1,445	105	7.3%	0.1%	1,550
Olney	5,393	296	5.5%	1.0%	5,689	331	5.8%	0.2%	6,020
Patuxent	2,605	15	0.6%	0.0%	2,620	510	19.5%	0.3%	3,130
Poolesville	1,744	31	1.8%	0.1%	1,775	3	0.2%	0.0%	1,778
Potomac	12,234	(151)	-1.2%	-0.5%	12,083	2,836	23.5%	1.7%	14,919
R & D Village	15,855	4,429	27.9%	14.2%	20,284	16,551	81.6%	10.1%	36,835
Rock Creek	1,898	(47)	-2.5%	-0.2%	1,851	25	1.4%	0.0%	1,876
Rockville City	72,102	5,492	7.6%	17.7%	77,594	23,083	29.7%	14.0%	100,677
Shady Grove	2,850	4	0.1%	0.0%	2,854	2,618	91.7%	1.6%	5,472
Silver Spring CBD	28,750	1,808	6.3%	5.8%	30,558	2,529	8.3%	1.5%	33,087
Silver Spring/Takoma Park	15,976	(420)	-2.6%	-1.4%	15,556	(643)	-4.1%	-0.4%	14,913
Twinbrook	9,142	1,121	12.3%	3.6%	10,263	804	7.8%	0.5%	11,067
Wheaton CBD	8,545	497	5.8%	1.6%	9,042	915	10.1%	0.6%	9,957
White Flint	6,113	(15)	-0.2%	0.0%	6,098	7,313	119.9%	4.4%	13,411
Montgomery County Total	474,300	31,100	6.6%	100.0%	505,400	164,600	32.6%	100.0%	670,000

Source: Montgomery County Planning Department, Research and Technology Center, April 2009

Households

The County's households grew by 34,500 between 2000 and 2009, an increase of 10.6 percent (Table 2). This is slower than the County's pace of household growth in the 1990s when households grew by 42,300 an increase of 15 percent. The County's annual household growth rate this decade is 1.1 percent per year, compared to an annual growth rate of 1.4 percent during the 1990s. Figure 3 shows the County's 2009 household density per acre by traffic zone. The colors and heights of the traffic zone shapes depict the density of the County's households in 2009, not the actual number of households in the traffic zones.

Between 2009 and 2030 the County's Round 7.2 forecast shows an increase of 80,900 households an increase of 22.5 percent. County's annual household growth rate during this period would be 1.0 percent per year slightly lower than the current annual growth rate.

In 2005, 6.5 percent of the County's households were in the City of Rockville (22,500). During the Round 7.2 forecast period, Rockville slightly increases its relative share of the County's households. In 2030, Rockville has 30,800 households, 7.0 percent of the County total.

In 2005, Gaithersburg had 21,700 households, 6.2 percent of the County total. By 2030, Gaithersburg expects to have 33,900 households, increasing its share of the County's households to 7.7 percent.

Between 2000 and 2009, five Policy Areas scattered around the County had over half of the County's household growth. Rockville City had the most growth 6,500 households, 19 percent of the County's household growth. Germantown West ranked second growing by 3,300 households (10 percent) followed by Clarksburg +3,200 households (9 percent), Gaithersburg City +2,700 households (8 percent), and Fairland/White Oak +2,200 households (6 percent). Between 2000 and 2009, Clarksburg had the highest rate of household growth, increasing by 417 percent. The Metro Station Policy Areas combined grew by 4,800 households, an increase of 23 percent, and they represent 14 percent of the County's projected household growth.

Between 2009 and 2030, of all the Policy Areas, Gaithersburg City and Clarksburg are projected to grow the most. Gaithersburg City is projected to grow by 9,900 households, 12 percent of the County's growth, and Clarksburg is projected to grow by 9,200 households, 11 percent of the County's growth. The Rockville City Policy Area is projected to have the third highest growth 6,400 households, 8 percent of the County's growth, followed by the Silver Spring CBD +6,200 households (8 percent), R&D Village +5,900 households (7 percent), Shady Grove +5,200 households (6 percent), and North Bethesda +5,100 jobs (6 percent). These seven Policy Areas are projected to have almost 60 percent of the County's household growth. The Metro Station Policy Areas are projected to grow by 26,600 households, an increase of 102 percent, and they

represent 33 percent of the County's projected household growth. Figure 4 shows the changes in household density from 2009 to 2030. The colors and heights of the traffic zone shapes depict the density of the County's household growth, not the actual change in the number of households between 2009 and 2030 in the traffic zones.

Table2
Montgomery County Household Growth by Policy Area
Round 7.2 Cooperative Household Forecast

Policy Area	2000 Households	2000 to 2009 Household Growth	% Change	% of County Growth	2009 Households	2009 to 2030 Household Growth	% Change	% of County Growth	2030 Households
Aspen Hill	23,742	1,122	4.7%	3.2%	24,864	130	0.5%	0.2%	24,994
Bethesda CBD	5,841	1,320	22.6%	3.8%	7,161	3,970	55.4%	4.9%	11,131
Bethesda/Chevy Chase	27,693	1,409	5.1%	4.1%	29,102	193	0.7%	0.2%	29,295
Clarksburg	757	3,155	416.8%	9.1%	3,912	9,206	235.3%	11.4%	13,118
Cloverly	5,207	273	5.2%	0.8%	5,480	72	1.3%	0.1%	5,552
Damascus	3,281	431	13.1%	1.2%	3,712	1,120	30.2%	1.4%	4,832
Darnestown/Travilah	3,306	508	15.4%	1.5%	3,814	210	5.5%	0.3%	4,024
Derwood	5,587	107	1.9%	0.3%	5,694	587	10.3%	0.7%	6,281
Fairland/White Oak	26,278	2,174	8.3%	6.3%	28,452	452	1.6%	0.6%	28,904
Friendship Heights	3,325	30	0.9%	0.1%	3,355	903	26.9%	1.1%	4,258
Gaithersburg City	20,520	2,730	13.3%	7.9%	23,250	9,933	42.7%	12.3%	33,183
Germantown East	7,196	820	11.4%	2.4%	8,016	1,795	22.4%	2.2%	9,811
Germantown Town Center	131	850	648.9%	2.5%	981	1,375	140.2%	1.7%	2,356
Germantown West	18,022	3,328	18.5%	9.6%	21,350	4,703	22.0%	5.8%	26,053
Glenmont	1,067	3	0.3%	0.0%	1,070	900	84.1%	1.1%	1,970
Goshen	4,891	421	8.6%	1.2%	5,312	256	4.8%	0.3%	5,568
Grosvenor	2,682	967	36.1%	2.8%	3,649	965	26.4%	1.2%	4,614
Kensington/Wheaton	32,101	447	1.4%	1.3%	32,548	1,238	3.8%	1.5%	33,786
Montgomery Village/Airpark	18,337	427	2.3%	1.2%	18,764	76	0.4%	0.1%	18,840
North Bethesda	13,792	762	5.5%	2.2%	14,554	5,069	34.8%	6.3%	19,623
North Potomac	8,534	472	5.5%	1.4%	9,006	1,355	15.0%	1.7%	10,361
Olney	10,725	646	6.0%	1.9%	11,371	1,697	14.9%	2.1%	13,068
Patuxent	2,969	661	22.3%	1.9%	3,630	294	8.1%	0.4%	3,924
Poolesville	2,925	164	5.6%	0.5%	3,089	442	14.3%	0.5%	3,531
Potomac	16,457	773	4.7%	2.2%	17,230	606	3.5%	0.7%	17,836
R & D Village	2,603	953	36.6%	2.8%	3,556	5,911	166.2%	7.3%	9,467
Rock Creek	1,844	414	22.5%	1.2%	2,258	422	18.7%	0.5%	2,680
Rockville City	17,193	6,479	37.7%	18.8%	23,672	6,430	27.2%	7.9%	30,102
Shady Grove	347	3	0.9%	0.0%	350	5,214	1489.7%	6.4%	5,564
Silver Spring CBD	5,187	1,092	21.1%	3.2%	6,279	6,170	98.3%	7.6%	12,449
Silver Spring/Takoma Park	29,073	172	0.6%	0.5%	29,245	698	2.4%	0.9%	29,943
Twinbrook	3	0	0.0%	0.0%	3	2,549	84966.7%	3.2%	2,552
Wheaton CBD	1,993	475	23.8%	1.4%	2,468	1,841	74.6%	2.3%	4,309
White Flint	956	947	99.1%	2.7%	1,903	4,118	216.4%	5.1%	6,021
Montgomery County	324,565	34,535	10.6%	100.0%	359,100	80,900	22.5%	100.0%	440,000

Source: Montgomery County Planning Department, Research and Technology Center, April 2009

Population in Households

The County's population living in households increased from 863,900 in 2000 to 945,200 in 2009, an increase of 81,300 about 9 percent (Table 3). The average annual growth rate was 1 percent per year, slower than the average annual growth rate of 1.4 percent that occurred during the 1990s.

The County's Round 7.2 forecast shows the household population reaching slightly over 1.1 million by 2030. Between 2009 and 2030, the County's household population is projected to grow by 177,100 an increase of almost 19 percent. County's annual growth rate during this period would be 0.8 percent per year slightly lower than the current annual growth rate of 1 percent per year.

Four of the County's Policy Areas grew by more than 10,000 people between 2000 and 2009. Rockville City's household population grew the most increasing by 13,000 16 percent of the County's growth. Germantown West grew by 11,500 14 percent of the County's growth, Bethesda/Chevy Chase grew by 11,100 almost 14 percent of the County's growth and Clarksburg grew by 10,100 12 percent of the County's growth.

Between 2000 and 2009 three Policy areas have growth rates over 100 percent: the Germantown Town Center's population increased by 1,500 an increase of 566 percent, Clarksburg's population increased by 10,100 an increase of 472 percent, and White Flint's population increased by 2,200 an increase of 136 percent.

Between 2000 and 2009 five Policy Areas showed population declines. Kensington/Wheaton's population dropped by almost 6,000 a decrease of 6.5 percent, Silver Spring/Takoma Park's population dropped by about 1,000 a decrease of 1.4 percent, North Potomac's and Montgomery Village/Airpark's populations dropped by about 900 decreases of 3.3 percent and 1.8 percent respectively, and Derwood's population dropped by about 140 a decrease of 0.8 percent. These five Policy Areas also had low household growth during this period, combined they had 4.7 percent of the County's household growth.

The Round 7.2 population in households forecast shows two Policy Areas growing the most between 2009 and 2030. Clarksburg's population is projected to grow by 25,000 an increase of 204 percent and Gaithersburg City's population is projected to grow by 24,500 an increase of 41 percent. Each of these Policy Areas will have about 14 percent of the County's household population growth. No other Policy Area has more than 8 percent of the County's population growth. Five Policy Areas are each projected to have between about 7 to 8 percent of the County's population growth. Rockville City's population will grow by 13,600 an increase of 23 percent and have 8 percent of the County's population growth. Each of the following Policy

Areas will have about 7 percent of the County's population growth: the R & D Village's population grows by 12,800 an increase of 177 percent, the Silver Spring CBD's population grows by 12,600 (+105 percent), North Bethesda's population grows by 12,000 (+32 percent), and Shady Grove's population grows by 11,900 (+1,445 percent). Along with Shady Grove, two other Policy Areas are emerging areas of population growth. White Flint's population grows by 9,900 and increase of 262 percent and Twinbrook's population grows from 8 in 2009 to about 5,300 in 2030 an increase of 66,163 percent.

Five Policy Areas show declines in population between 2009 and 2030: Fairland/White Oak's population declines by 2,100 a decrease of 3 percent, North Potomac's population declines by 1,000 a decrease of 4 percent, Darnestown/Travilah's population declines by 400 a decrease of 4 percent, Aspen Hill's population declines by 400 a decrease of less than 1 percent, and Cloverly's population declines by 200 a decrease of 1 percent.

Table3
Montgomery County Household Population Growth by Policy
Area
Round 7.2 Cooperative Household Population Forecast

Policy Areas	2000 Population Living In Households	2000 to 2009 Population Growth in Households	% Change	% of County Growth	2009 Population Living In Households	2009 to 2030 Population Growth in Households	% Change	% of County Growth	2030 Population Living In Households
Aspen Hill	59,352	1,347	2.3%	1.7%	60,699	(391)	-0.6%	-0.2%	60,308
Bethesda CBD	9,023	2,540	28.2%	3.1%	11,563	7,683	66.4%	4.3%	19,246
Bethesda/Chevy Chase	70,278	11,137	15.8%	13.7%	81,415	5,032	6.2%	2.8%	86,447
Clarksburg	2,144	10,112	471.6%	12.4%	12,256	25,042	204.3%	14.1%	37,298
Cloverly	15,333	878	5.7%	1.1%	16,211	(219)	-1.4%	-0.1%	15,992
Damascus	9,984	590	5.9%	0.7%	10,574	2,552	24.1%	1.4%	13,126
Darnestown/Travilah	10,564	1,461	13.8%	1.8%	12,025	(428)	-3.6%	-0.2%	11,597
Derwood	17,647	(145)	-0.8%	-0.2%	17,502	1,448	8.3%	0.8%	18,950
Fairland/White Oak	70,685	5,360	7.6%	6.6%	76,045	(2,121)	-2.8%	-1.2%	73,924
Friendship Heights	5,058	207	4.1%	0.3%	5,265	1,905	36.2%	1.1%	7,170
Gaithersburg City	53,154	6,882	12.9%	8.5%	60,036	24,493	40.8%	13.8%	84,529
Germantown East	20,567	2,606	12.7%	3.2%	23,173	1,559	6.7%	0.9%	24,732
Germantown Town Center	271	1,535	566.4%	1.9%	1,806	2,629	145.6%	1.5%	4,435
Germantown West	47,817	11,455	24.0%	14.1%	59,272	9,024	15.2%	5.1%	68,296
Glenmont	2,579	92	3.6%	0.1%	2,671	2,399	89.8%	1.4%	5,070
Goshen	14,949	1,118	7.5%	1.4%	16,067	156	1.0%	0.1%	16,223
Grosvenor	4,467	1,815	40.6%	2.2%	6,282	3,279	52.2%	1.9%	9,561
Kensington/Wheaton	91,341	(5,960)	-6.5%	-7.3%	85,381	4,526	5.3%	2.6%	89,907
Montgomery Village/Airpark	51,771	(910)	-1.8%	-1.1%	50,861	1,214	2.4%	0.7%	52,075
North Bethesda	32,415	4,584	14.1%	5.6%	36,999	11,953	32.3%	6.7%	48,952
North Potomac	28,294	(920)	-3.3%	-1.1%	27,374	(1,013)	-3.7%	-0.6%	26,361
Olney	32,022	980	3.1%	1.2%	33,002	2,542	7.7%	1.4%	35,544
Patuxent	8,943	1,555	17.4%	1.9%	10,498	439	4.2%	0.2%	10,937
Poolesville	8,565	351	4.1%	0.4%	8,916	1,398	15.7%	0.8%	10,314
Potomac	46,801	1,913	4.1%	2.4%	48,714	208	0.4%	0.1%	48,922
R & D Village	5,821	1,383	23.8%	1.7%	7,204	12,759	177.1%	7.2%	19,963
Rock Creek	5,967	1,572	26.3%	1.9%	7,539	382	5.1%	0.2%	7,921
Rockville City	45,746	13,020	28.5%	16.0%	58,766	13,563	23.1%	7.7%	72,329
Shady Grove	614	212	34.5%	0.3%	826	11,936	1445.0%	6.7%	12,762
Silver Spring CBD	8,878	3,174	35.8%	3.9%	12,052	12,607	104.6%	7.1%	24,659
Silver Spring/Takoma Park	76,219	(1,039)	-1.4%	-1.3%	75,180	676	0.9%	0.4%	75,856
Twinbrook	8	0	0.0%	0.0%	8	5,293	66162.5%	3.0%	5,301
Wheaton CBD	5,023	193	3.8%	0.2%	5,216	4,627	88.7%	2.6%	9,843
White Flint	1,610	2,192	136.1%	2.7%	3,802	9,948	261.7%	5.6%	13,750
Montgomery County Total	863,910	81,290	9.4%	100.0%	945,200	177,100	18.7%	100.0%	1,122,300

Source: Montgomery County Planning Department, Research and Technology Center, April 2009

2. DEVELOPMENT PIPELINE

The Planning Department maintains Montgomery County's commercial and residential development pipelines. The pipelines include commercial and residential projects that have been approved for development but not yet built. In the commercial pipeline, the gross floor area approved is converted into a job potential for the development.

Commercial Pipeline

There are 33 million square feet of commercial space remaining to be built in the March 2009 commercial pipeline (Table 4). This represents the equivalent of about 111,600 jobs. If the pipeline would be built to capacity, these jobs would represent about 68 percent of the Round 7.2 job growth forecast between 2009 and 2030, or the jobs remaining in the commercial pipeline would fill the County's job growth to between the years 2023 and 2024.

The Round 7.2 forecasts are not only based on the current remaining pipeline but include the potential growth in adopted and proposed master plans and sector plans. Much of the potential development in these plans has not yet entered the pipeline of approved development. Most of the development potential in the adopted Shady Grove and Twinbrook sector plans has not entered the pipeline. None of the proposed changes to development potential in plan amendments currently in process (Gaithersburg West, Germantown, and White Flint) has entered the pipeline, although some of the jobs and housing potential is in the pipeline. For instance, the July 2009 Planning Board Draft of the Gaithersburg West Master Plan recommends a staging plan for the newly proposed Life Sciences Center Policy Area (described in Appendix H) that encompasses the LSC Belward, LSC West, and LSC Central neighborhoods. This new policy area has approximately 5.5 million square feet of existing commercial space. An additional 2.7 million square feet of commercial space is in the pipeline. The master plan recommends that an additional 9.5 million square feet of commercial space could be constructed. The potential new development in all these plans is considered in the Round 7.2 forecasts. The current commercial pipeline is not built to capacity by 2030 in the Round 7.2 forecast.

Housing Pipeline

There are 29,000 housing units remaining to be built in the February 2009 pipeline, 9,600 single-family units and 19,400 multi-family units (Table 5). Based on the Round 7.2 2009 to 2030 household growth forecast, the pipeline units represent about 58 percent of the single-

family growth, 30 percent of the multi-family growth and 36 percent of the total household growth. The 29,000 housing units in the pipeline would fill the County's projected household growth from 2009 to between 2015 and 2016.

Table 4: Pipeline of Approved Commercial Development by Policy Area
Montgomery County, Maryland as of 3/27/09

Policy Area	Square Feet		Estimated Job Capacity			Estimated Job Capacity, Remaining Development			
	Approved	Remaining	Approved	Remaining	% of Remaining	Office	Retail	Industrial	Other
Aspen Hill	62,986	62,986	80	80	0.1%	75	0	5	0
Bethesda Central Business District	500,004	500,004	958	957	0.9%	351	411	0	195
Bethesda/Chevy Chase	299,023	299,023	1,006	1,006	0.9%	721	285	0	0
Clarksburg	3,979,220	3,442,359	12,738	10,590	9.5%	9,195	1,395	0	0
Cloverly	223,148	106,172	17	16	0.0%	6	0	0	11
Damascus	3,162	3,162	13	13	0.0%	13	0	0	0
Derwood	424,643	406,793	1,565	1,564	1.4%	1,389	31	144	0
Fairland/White Oak	3,484,613	2,824,247	9,672	7,591	6.8%	4,879	199	128	2,385
Friendship Heights	760,055	760,055	3,033	3,033	2.7%	2,670	197	0	166
Gaithersburg City	4,532,096	3,827,007	15,488	15,488	13.9%	12,030	2,973	226	259
Germantown East	3,105,288	1,945,543	10,679	9,019	8.1%	8,682	274	0	63
Germantown West	1,878,570	1,702,053	7,301	7,226	6.5%	6,926	285	0	15
Germantown Town Center	150,269	145,217	15	15	0.0%	8	7	0	0
Glenmont	8,585	8,585	17	17	0.0%	0	0	0	17
Grosvenor	0	0	0	0	0.0%	0	0	0	0
Kensington/Wheaton	38,904	33,974	77	22	0.0%	14	0	8	0
Montgomery Village/Montgomery Airpark	1,304,211	1,294,711	3,213	3,213	2.9%	1,638	0	1,575	0
North Bethesda	3,473,068	2,164,153	13,740	7,913	7.1%	6,344	947	73	549
North Potomac	40,000	40,000	160	160	0.1%	160	0	0	0
Olney	579,755	579,755	208	207	0.2%	10	20	0	177
Potomac	1,446,480	1,446,480	3,485	3,485	3.1%	1,664	1,514	0	307
Research & Development Village	4,237,629	2,531,815	12,457	7,584	6.8%	1,600	0	3,507	2,477
Rockville City	5,628,148	5,166,720	20,197	18,556	16.6%	16,320	694	272	1,271
Shady Grove	6,400	6,400	0	16	0.0%	0	16	0	0
Silver Spring Central Business District	1,644,784	804,826	5,450	5,218	4.7%	3,285	1,629	0	304
Silver Spring/Takoma Park	203,445	183,300	284	283	0.3%	261	21	1	0
Twinbrook	447,914	447,914	1,280	1,280	1.1%	0	0	0	1,280
Wheaton Central Business District	4,000	4,000	10	10	0.0%	0	10	0	0
White Flint	1,684,937	1,603,199	5,895	5,691	5.1%	4,592	1,098	0	1
Rural	657,568	617,924	1,313	1,312	1.2%	216	954	1	141
Montgomery County Total	40,808,905	32,958,377	130,349	111,565		83,049	12,960	5,940	9,618
County (not including Gaithersburg & Rockville)	30,648,661	23,964,650	94,663	77,521	69.5%	54,699	9,293	5,442	8,088

Source: Montgomery County Planning Department, Research and Technology Center, April 2009

Table 5
Pipeline of Approved Residential Development by Policy Area
 Montgomery County, Maryland

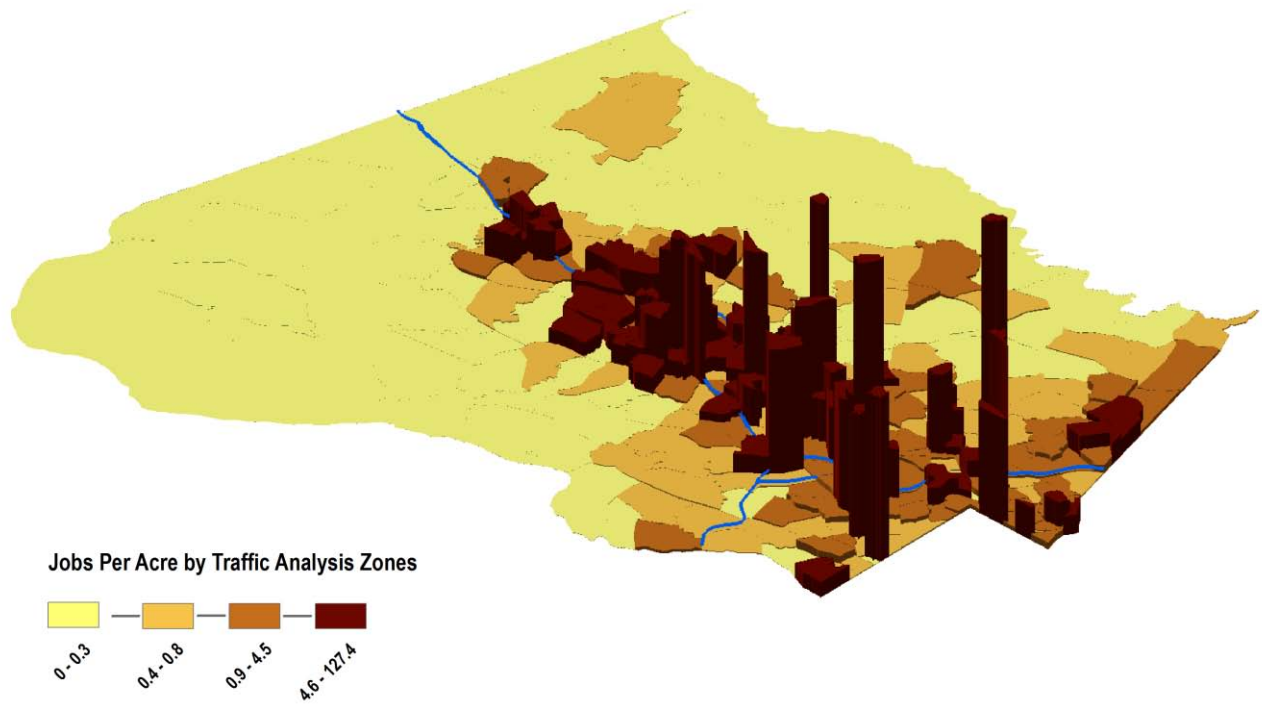
as of: February 28, 2009

Policy Areas	Approved Unit Type				Remaining to be Built Unit Type			
	Single-family Detached	Townhouse	Multi-Family	Total Units	Single-family Detached	Townhouse	Multi-Family	Total Units
Aspen Hill	92	54	46	192	62	48	46	156
Bethesda CBD	8	12	1,277	1,297	8	12	1,277	1,297
Bethesda/Chevy Chase	34	39	0	73	27	17	0	44
Clarksburg	2,945	2,627	2,621	8,193	1,722	1,379	1,701	4,802
Cloverly	70	0	0	70	58	0	0	58
Damascus	64	52	0	116	63	52	0	115
Derwood	206	256	196	658	206	256	196	658
Fairland/White Oak	98	386	0	484	75	258	0	333
Friendship Heights	0	200	733	933	0	200	733	933
Gaithersburg City	341	1,220	4,609	6,170	341	1,220	4,833	6,394
Germantown East	7	147	0	154	3	119	0	122
Germantown Town Center	0	0	604	604	0	0	162	162
Germantown West	438	225	300	963	215	170	179	564
Glenmont	0	0	0	0	0	0	0	0
Grosvenor	0	112	0	112	0	112	0	112
Kensington/Wheaton	517	446	45	1,008	513	440	27	980
Montgomery Village/Airpark	22	0	0	22	21	0	0	21
North Bethesda	10	0	1,250	1,260	10	0	860	870
North Potomac	66	85	0	151	53	61	0	114
Olney	179	103	241	523	141	103	141	385
Potomac	207	165	547	919	111	38	467	616
R & D Village	4	0	168	172	4	0	52	56
Rockville City	42	47	3,516	3,605	42	17	3,516	3,575
Shady Grove	6	36	0	42	6	36	0	42
Silver Spring CBD	0	0	2,918	2,918	0	0	2,918	2,918
Silver Spring/Takoma Park	23	121	169	313	22	90	169	281
Twinbrook	0	0	0	0	0	0	0	0
Wheaton CBD	0	0	180	180	0	0	180	180
White Flint	1	0	1,973	1,974	1	0	1,973	1,974
Rural	1,312	109	0	1,420	1,125	103	0	1,228
Montgomery County Total	6,692	6,442	21,393	34,526	4,829	4,731	19,430	28,990

Source: Montgomery County Planning Department, Research and Technology Center, April 2009

Figure 1

Jobs Per Acre in Montgomery County
January 1, 2009 Estimates by Traffic Analysis Zones

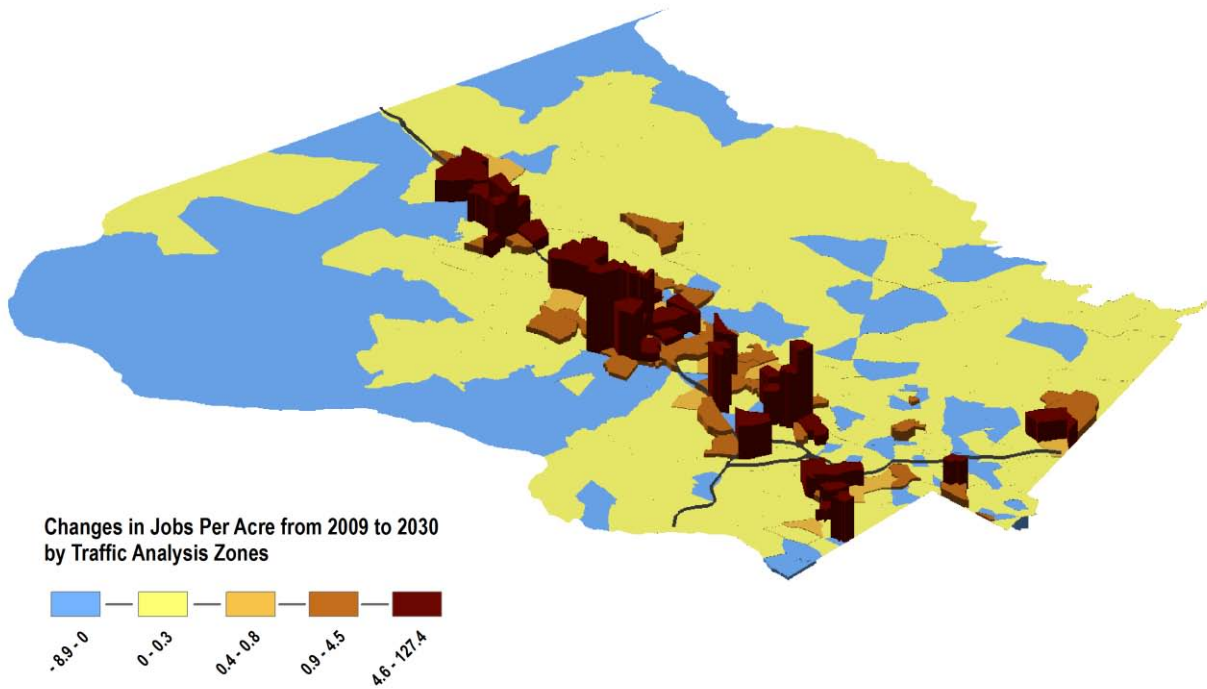


Source: Montgomery County Planning Department, Research & Technology Center

Prepared by Jay Mulheisen, March 2009
D:\jay\11Tasks\Colan\Growth Policy\Jobs Housing Ratio

Figure 2

Jobs Per Acre in Montgomery County
2009 - 2030 Growth Estimates by Traffic Analysis Zones

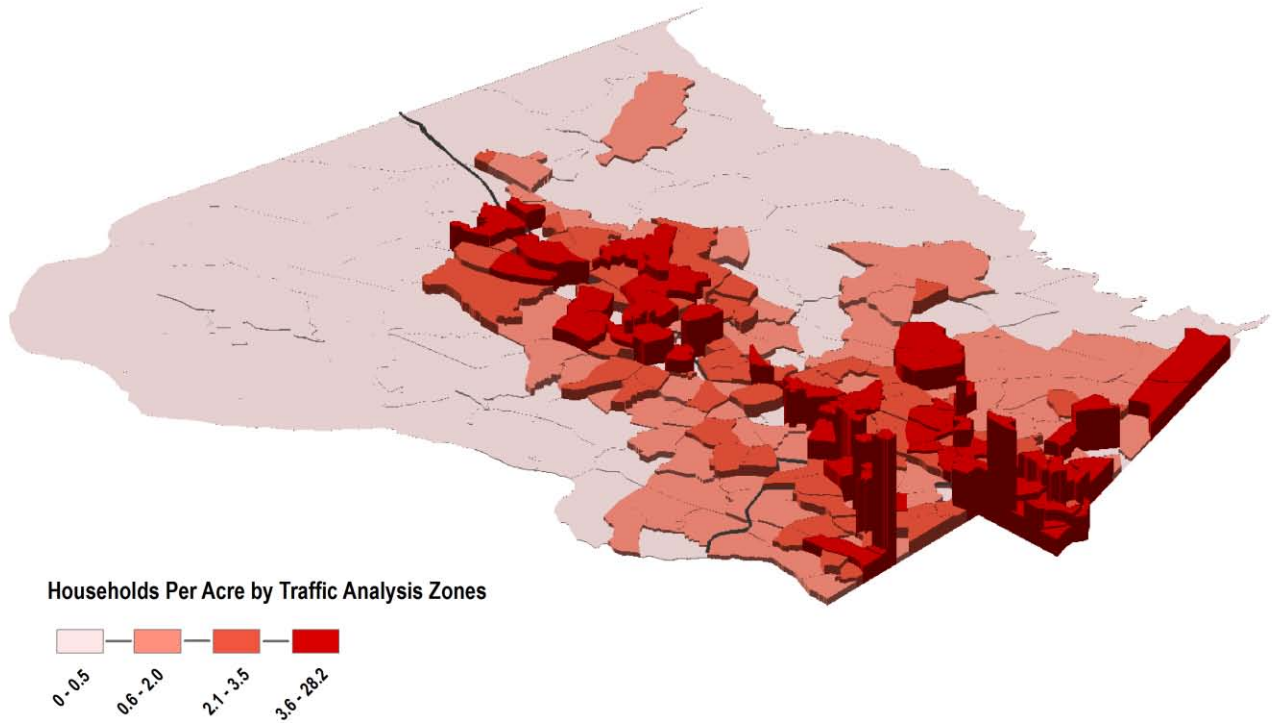


Source: Montgomery County Planning Department, Research & Technology Center

Prepared by Jay Malherge, March 2009
D (Jay) / Tasks/Down/Growth Policy/Job Housing Ratio

Figure 3

Households Per Acre in Montgomery County
January 1, 2009 Estimates by Traffic Analysis Zones

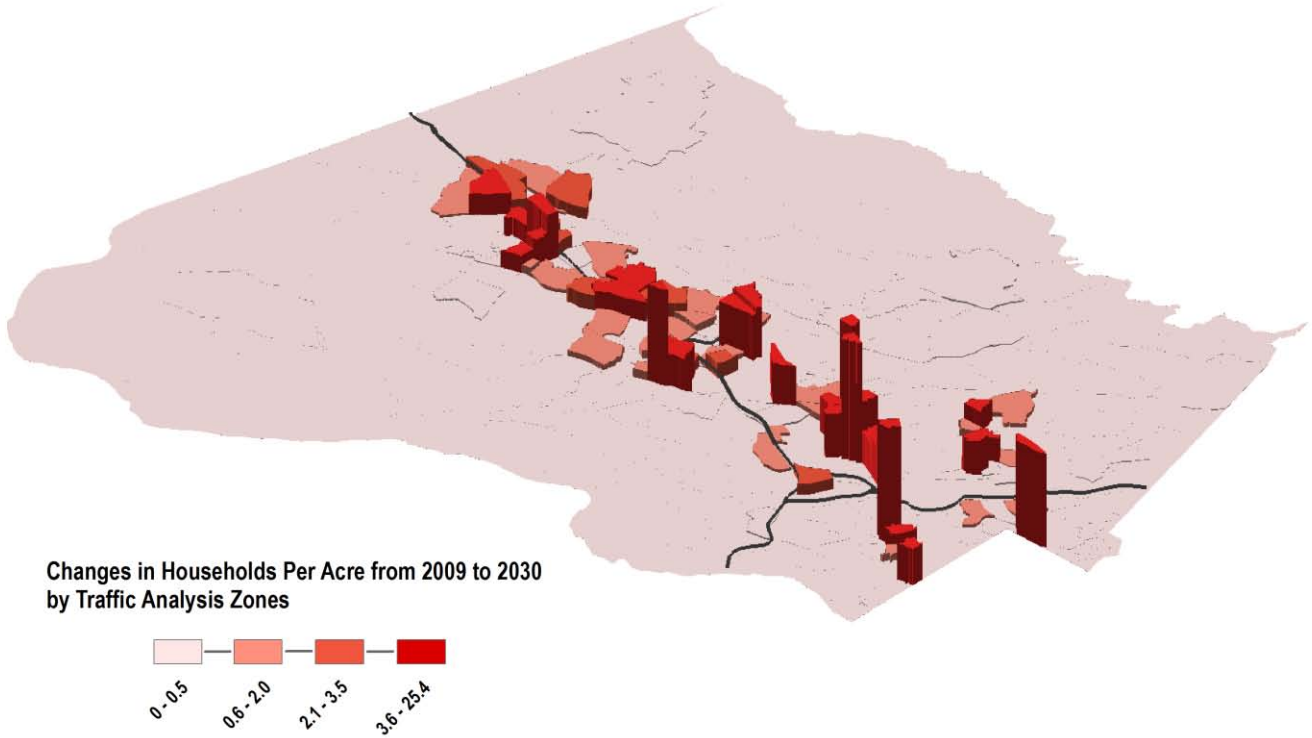


Source: Montgomery County Planning Department, Research & Technology Center

Prepared by Jay Mukherjee, March 2009
D (Jay) | Tasks | Goals | Growth Policy | Jobs Housing Ratio

Figure 4

Households Per Acre in Montgomery County
2009 - 2030 Growth Estimates by Traffic Analysis Zones



Source: Montgomery County Planning Department, Research & Technology Center

Prepared by Jay Malhotra, March 2009
D:\jay\Tasks\Colan\Growth Policy\Jobs Housing Ratio

Past and Projected Growth

The amount of new residents forecasted through the year 2030 is roughly equivalent to the number of new residents added since 1990. The comparison of growth since 1990 with that projected through the year 2030 demonstrates the way in which future growth will change to reflect an increasing scarcity of available land for greenfield development and changing demographics with fewer traditional nuclear family households living in subdivisions consisting of single-family detached houses.

Non-residential/Jobs

Between 1990 and 2008, 46.3 million square feet of non-residential space was built in Montgomery County (Table 5). Seventy five percent of this space, 34.8 million square feet, was built in the I-270 corridor and 11.5 million square feet was built in the remainder of the County. Twenty percent of the non-residential space was built in the Metro Station Policy Areas, 9.3 million square feet.

Between 2009 and 2030, we are forecasting 88 percent of the County's job growth in the I-270 corridor, about 144,700 jobs. During the same period, the Metro Station Policy Areas are expected to have about 12 percent of the County's job growth, about 19,200 jobs.

Housing Units/Households

About 71,500 housing units were built in the County between 1990 and 2008, 66 percent were single-family units and 44 percent were multi-family units (Table 6). The I-270 Corridor had about 61 percent of the new housing construction, 43,300 units, 56 percent of the new single-family units and about 70 percent of the new multi-family units. Metro Station Policy Areas accounted for about 10 percent of the new housing construction, 7,200 units.

Between 2009 and 2030, we are forecasting 80,900 more households. About 77 percent of this household growth, 62,400, is in the I-270 Corridor. Much of this growth will be in Clarksburg, the Cities of Gaithersburg and Rockville, and the two new growth areas for housing Shady Grove and the R & D Village. About 33 percent of the County's household growth is in Metro Station Policy Areas.

Table 5

Estimate of the Square Footage of Non-residential Gross Floor Area
Built 1990-2008 in Montgomery County by Policy Area

Policy Area	Total Sq. Ft.	% of Total Sq. Ft.
Aspen Hill	260,502	0.6%
Bethesda CBD	2,864,177	6.2%
Bethesda/Chevy Chase	421,732	0.9%
Clarksburg	1,502,485	3.2%
Cloverly	397,166	0.9%
Damascus	220,260	0.5%
Darnestown/Travilah	119,142	0.3%
Derwood	1,828,089	3.9%
Fairland/White Oak	1,855,625	4.0%
Friendship Heights	361,138	0.8%
Gaithersburg City	7,369,447	15.9%
Germantown East	2,274,192	4.9%
Germantown Town Center	737,364	1.6%
Germantown West	2,226,470	4.8%
Glenmont	63,402	0.1%
Goshen	175,736	0.4%
Grosvenor	191,652	0.4%
Kensington/Wheaton	369,240	0.8%
Montgomery Village/Airpark	1,204,179	2.6%
North Bethesda	3,357,504	7.2%
North Potomac	144,571	0.3%
Olney	596,383	1.3%
Patuxent	344,124	0.7%
Poolesville	203,172	0.4%
Potomac	571,960	1.2%
R & D Village	4,014,405	8.7%
Rock Creek	258,716	0.6%
Rockville City	6,252,312	13.5%
Shady Grove	390,075	0.8%
Silver Spring CBD	3,182,082	6.9%
Silver Spring/Takoma Park	336,269	0.7%
Twinbrook	695,394	1.5%
Wheaton CBD	577,957	1.2%
White Flint	983,474	2.1%
Total Sq. Ft.	46,350,396	100.0%

Table 6

Housing Units Built Between 1990 and 2008 in Montgomery County by Policy Area

Policy Area	Single-Family	Multi-Family	Total Units	% of Single-Family	% of Multi-Family	% of Total Units
Aspen Hill	987	2,413	3,400	2.1%	10.0%	4.8%
Bethesda CBD	73	1,706	1,779	0.2%	7.1%	2.5%
Bethesda/Chevy Chase	2,263	172	2,435	4.8%	0.7%	3.4%
Clarksburg	3,306	107	3,413	7.0%	0.4%	4.8%
Cloverly	717	0	717	1.5%	0.0%	1.0%
Damascus	649	108	757	1.4%	0.4%	1.1%
Darnestown/Travilah	1,422	0	1,422	3.0%	0.0%	2.0%
Derwood	334	0	334	0.7%	0.0%	0.5%
Fairland/White Oak	2,245	1,900	4,145	4.7%	7.9%	5.8%
Friendship Heights	0	379	379	0.0%	1.6%	0.5%
Gaithersburg City	4,161	2,569	6,730	8.8%	10.6%	9.4%
Germantown East	2,956	1,111	4,067	6.2%	4.6%	5.7%
Germantown Town Center	286	904	1,190	0.6%	3.7%	1.7%
Germantown West	6,651	1,588	8,239	14.0%	6.6%	11.5%
Glenmont	3	0	3	0.0%	0.0%	0.0%
Goshen	1,382	0	1,382	2.9%	0.0%	1.9%
Grosvenor	0	473	473	0.0%	2.0%	0.7%
Kensington/Wheaton	910	24	934	1.9%	0.1%	1.3%
Montgomery Village/Airpark	2,251	931	3,182	4.8%	3.9%	4.5%
North Bethesda	676	781	1,457	1.4%	3.2%	2.0%
North Potomac	2,672	25	2,697	5.6%	0.1%	3.8%
Olney	3,051	100	3,151	6.4%	0.4%	4.4%
Patuxent	1,154	133	1,287	2.4%	0.6%	1.8%
Poolesville	760	0	760	1.6%	0.0%	1.1%
Potomac	2,363	228	2,591	5.0%	0.9%	3.6%
R & D Village	831	1,723	2,554	1.8%	7.1%	3.6%
Rock Creek	1,254	0	1,254	2.6%	0.0%	1.8%
Rockville City	2,991	2,581	5,572	6.3%	10.7%	7.8%
Shady Grove	3	0	3	0.0%	0.0%	0.0%
Silver Spring CBD	57	2,178	2,235	0.1%	9.0%	3.1%
Silver Spring/Takoma Park	521	114	635	1.1%	0.5%	0.9%
Twinbrook	0	0	0	0.0%	0.0%	0.0%
Wheaton CBD	413	46	459	0.9%	0.2%	0.6%
White Flint	0	1,863	1,863	0.0%	7.7%	2.6%
County Total	47,342	24,157	71,499	100.0%	100.0%	100.0%

Urban and Non-Urban Growth

The following tables show 2009 estimates of existing employment and households, forecasted 2009 to 2030 employment and household growth, and the 2030 Round 7.2 employment and household forecasts for the County's urban areas and the remaining non-urban area of the County. The urban designation is based on the County's Road Code urban classification. The only area listed as urban that does not meet the Road Code's urban classification is the Life Sciences Center which is envisioned in the Draft Gaithersburg West Master Plan as becoming urban in character.

- In 2009, 30 percent of the County's jobs and 9 percent of the County's households are in urban areas.
- 2030 forecasts show that urban areas still have 30 percent of the County's jobs, but have 17 percent of the County's households.
- Between 2009 and 2030, urban areas are forecasted to have 49 percent of the County's household growth and 28 percent of the County's job growth.
- Our master plans and sector plans are focused on increasing housing in areas that have traditionally been job centers, creating a better job to housing balance. Reducing the need for long distance commuting will result in fewer and shorter vehicle trips. More information on the effect of jobs/housing balance on travel demand is included in Appendix L.
 - In 2009, the jobs to household ratios are 4.64 in urban areas and 1.11 in the remainder of the County.
 - In 2030, our forecasts based on master plans and sector plans show jobs to household ratios decreasing to 2.74 in urban areas and increasing to 1.31 in the remainder of the County.

**At-Place Employment and Household Estimates, January 1, 2009
Montgomery County, MD**

Urban Area	Employment					Households			Jobs/ Household Ratio
	Office	Retail	Industrial	Other	Total Jobs	Single- Family	Multi- Family	Total	
Bethesda CBD	30,704	3,773	29	1,343	35,849	683	6,478	7,161	5.01
Clarksburg Town Center	12	22	0	48	82	1,013	88	1,101	0.07
Damascus Town Center	349	1,221	32	713	2,315	67	319	386	6.00
Flower Ave/Piney Branch Rd	4	488	0	0	492	0	0	0	
Friendship Heights	7,020	1,315	0	283	8,618	2	3,353	3,355	2.57
Germantown Town Center	1,799	1,439	224	160	3,622	198	348	546	6.63
Glenmont	10	584	0	40	634	618	452	1,070	0.59
Grosvenor	395	0	0	193	588	423	3,226	3,649	0.16
Life Sciences Center	6,226	365	772	2,367	9,730	9	0	9	1,081.11
Montgomery Hills	276	315	5	16	612	0	0	0	
North Bethesda Mixed Use Center	14,508	8,326	2,372	791	25,997	122	3,536	3,658	7.11
Olney Town Center	1,877	826	0	0	2,703	9	61	70	38.61
Shady Grove	197	1,092	679	886	2,854	145	1,276	1,421	2.01
Silver Spring CBD	24,231	4,769	491	1,067	30,558	146	6,133	6,279	4.87
Twinbrook	11,991	4,113	1,052	526	17,682	3	1,199	1,202	14.71
Westbard	697	516	351	59	1,623	0	587	587	2.76
Wheaton CBD	2,751	5,809	274	208	9,042	1,192	1,276	2,468	3.66
Urban Area Total	103,047	34,973	6,281	8,700	153,001	4,630	28,332	32,962	4.64
Non-Urban Areas	158,884	54,811	41,929	106,505	362,129	239,551	86,596	326,147	1.11
Montgomery County	255,705	89,419	47,438	112,838	505,400	244,172	114,928	359,100	1.41
Percent Urban	40.3%	39.1%	13.2%	7.7%	30.3%	1.9%	24.7%	9.2%	
Percent Non-Urban	62.1%	61.3%	88.4%	94.4%	71.7%	98.1%	75.3%	90.8%	

2009 to 2030 Employment and Household Growth in Urban and Non-Urban Areas

Montgomery County - Round 7.2 Cooperative Forecast

Urban Area	Employment					Total Jobs	Households			Jobs/ Household Ratio
	Office	Retail	Industrial	Other	Single-Family		Multi-Family	Total		
Bethesda CBD	2,352	292	0	116	2,760	17	3,953	3,970	0.70	
Clarksburg Town Center	1,045	296	0	26	1,367	790	350	1,140	1.20	
Damascus Town Center	51	100	0	0	151	0	730	730	0.21	
Flower Ave/Piney Branch Rd	28	6	0	0	34	0	0	0		
Friendship Heights	2,013	104	0	104	2,221	100	803	903	2.46	
Germantown Town Center	2,735	129	-3	424	3,285	30	1,345	1,375	2.39	
Glenmont	18	61	0	5	84	200	700	900	0.09	
Grosvenor	2	0	0	1	3	112	853	965	0.00	
Life Sciences Center	5,833	148	4,007	2,759	12,747	0	3,880	3,880	3.29	
Montgomery Hills	13	5	0	0	18	0	0	0		
North Bethesda Mixed Use Center	10,082	2,494	726	373	13,675	12	8,282	8,294	1.65	
Olney Town Center	214	265	0	54	533	7	610	617	0.86	
Shady Grove	2,082	-7	615	-72	2,618	344	4,870	5,214	0.50	
Silver Spring CBD	2,039	196	8	286	2,529	9	6,161	6,170	0.41	
Twinbrook	1,565	852	214	505	3,136	0	3,731	3,731	0.84	
Westbard	160	15	0	0	175	0	0	0		
Wheaton CBD	847	58	8	2	915	46	1,795	1,841	0.50	
Urban Area Total	31,079	5,014	5,575	4,583	46,251	1,667	38,063	39,730	1.16	
Non-Urban Areas	76,274	12,446	10,193	19,435	118,349	14,776	26,394	41,170	2.87	
Countywide Growth	107,353	17,460	15,768	24,018	164,600	16,443	64,457	80,900	2.03	
Percent of Growth Urban	29.0%	28.7%	35.4%	19.1%	28.1%	10.1%	59.1%	49.1%		
Percent of Growth Non-Urban	71.0%	71.3%	64.6%	80.9%	71.9%	89.9%	40.9%	50.9%		

**2030 At-Place Employment and Households in Urban and Non-Urban Areas
Montgomery County - Round 7.2 Cooperative Forecast**

Urban Area	Employment					Households			Jobs/ Household Ratio
	Office	Retail	Industrial	Other	Total Jobs	Single- Family	Multi- Family	Total	
Bethesda CBD	33,056	4,065	29	1,459	38,609	700	10,431	11,131	3.47
Clarksburg Town Center	1,057	318	0	74	1,449	1,803	438	2,241	0.65
Damascus Town Center	400	1,321	32	713	2,466	67	1,049	1,116	2.21
Flower Ave/Piney Branch Rd	32	494	0	0	526	0	0	0	
Friendship Heights	9,033	1,419	0	387	10,839	102	4,156	4,258	2.55
Germantown Town Center	4,534	1,568	221	584	6,907	228	1,693	1,921	3.60
Glenmont	28	645	0	45	718	818	1,152	1,970	0.36
Grosvenor	397	0	0	194	591	535	4,079	4,614	0.13
Life Sciences Center	12,059	513	4,779	5,126	22,477	9	3,880	3,889	5.78
Montgomery Hills	289	320	5	16	630	0	0	0	
North Bethesda Mixed Use Center	24,590	10,820	3,098	1,164	39,672	134	11,818	11,952	3.32
Olney Town Center	2,091	1,091	0	54	3,236	16	671	687	4.71
Shady Grove	2,279	1,085	1,294	814	5,472	489	6,146	6,635	0.82
Silver Spring CBD	26,270	4,965	499	1,353	33,087	155	12,294	12,449	2.66
Twinbrook	13,556	4,965	1,266	1,031	20,818	3	4,930	4,933	4.22
Westbard	857	531	351	59	1,798	0	587	587	3.06
Wheaton CBD	3,598	5,867	282	210	9,957	1,238	3,071	4,309	2.31
Urban Area Total	134,126	39,987	11,856	13,283	199,252	6,297	66,395	72,692	2.74
Non-Urban Areas	235,158	67,257	52,122	125,940	480,478	254,327	112,990	367,317	1.31
Montgomery County	363,058	106,879	63,206	136,856	670,000	260,615	179,385	440,000	1.52
Percent Urban	36.9%	37.4%	18.8%	9.7%	29.7%	2.4%	37.0%	16.5%	
Percent Non-Urban	64.8%	62.9%	82.5%	92.0%	71.7%	97.6%	63.0%	83.5%	

3. GROWTH IN BETHESDA AND SILVER SPRING

The Bethesda and Silver Spring Central Business Districts have matured over the past two decades and are now recognized as the County's two most urban downtown areas and successful examples of smart growth. The development of these business districts has required substantial planning and management by both the Planning Department and several Executive branch agencies. In particular, the County investment of public funds in Silver Spring during the 1990s was an instrumental to realizing success.

The Bethesda and Silver Spring CBDs provide examples that the County can use to consider the management of the next generation of economic growth into more efficient communities. Staff have compared Bethesda and Silver Spring to planned growth patterns for the White Flint Sector Plan, since the size, location, and types of development contemplated in White Flint are similar to those that have occurred in Bethesda and Silver Spring. Comparisons to growth in communities like Germantown, the Gaithersburg West Life Sciences Center, Wheaton, and Takoma Park are more subtle due to the wide range in location, demographics, and economic opportunities in different areas of the County. But the general trends remain apt – our urbanizing areas will generally contain younger residents that help maintain the County's economic growth.

DEMOGRAPHICS

General Population & Age

- The population in the two CBDs has gotten younger.
 1. The average age of the Bethesda CBD's population went from 43.4 years in 1987 to 38.1 years in 2005
 2. The average age of the Silver Spring CBD's population went from 45.8 years in 1987 to 35.5 years in 2005
- During the same period, the County's population has gotten older. Its average age went from 35.3 years in 1987 to 36.9 years in 2005.

Population – Children

School age children (5-17) as a percentage of population has increased in both CBDs

- Bethesda CBD: 3.2% of household population in 1987 to 5.1% in 2005
- Silver Spring CBD: 3.8% of household population in 1987 to 6.5% in 2005

Children 17 and under as a percentage of population has increased in both CBDs

- Bethesda CBD: 6.8% of household population in 1987 to 10.9% in 2005
- Silver Spring CBD: 6.0% of household population in 1987 to 10.8% in 2005

These changes are reflected in increased household sizes.

Race

Racial population's shifts in both CBD's mirrored the county shifts in racial population.

- Bethesda CBD the white population decreased from 95.1% to 75.2% in 1987 to 2005
- Silver Spring CBD, the white population decreased from 58.2% to 43.1%
- County white population decreased from 84.2% to 64.0% in 1987-2005
- Bethesda CBD: Asian population was 2.0 % in 1987 and grew to 12.2% in 2005; Black population was 3.0% in 1987 and increased to 5.8% in 2005
- Silver Spring CBD: Asian population was 5.1 % in 1987 and increased to 9.4% in 2005; Black population was 35.0% in 1987 and increased to 43.2% in 2005
- County Asian population was 6.3% in 1987 and increased to 13.4% in 2005; Black population was 9.3% in 1987 and increased to 16.6 % in 2005

Ethnicity

Hispanic population did not grow as quickly in the two CBDs, as it did countywide.

- Bethesda CBD: Persons of Hispanic origin were 8.0% of the population in 1987 and 14.1% in 2005
- Silver Spring CBD: Persons of Hispanic origins were 6.6% of the population in 1987 and 11.3% in 2005
- County: Persons of Hispanic origins were 5.4% of the population in 1987 and 13.9% in 2005

Income Incomes in the two CBDs went up and their percentage increases are higher than the increase in incomes countywide.

- Bethesda CBD: Median household incomes increased from \$43,090 in 1993 to \$70, 230 in 2004. Adjusted for inflation that is an increase of 25% from 1993 to 2004.
- Silver Spring CBD: Median household incomes increased from \$31,011 in 1993 to \$48,715 in 2004. Adjusted for inflation that is an increase of 20% from 1993 to 2004.

- Countywide: Median household incomes increased from \$59,083 in 1993 to \$83,880 in 2004, Adjusted for inflation, incomes increased 8% from 1993 to 2004

Changing Demographics in the Bethesda and Silver Spring CBD Policy Areas

	BETHESDA			SILVER SPRING			COUNTY		
	1987	2005	% Change 87-05	1987	2005	% Change 87-05	1987	2005	%change 87-05
Household Population	5,335	11,890	122.9%	5,894	10,475	77.7%	674,000	931,000	38.1%
Age Distribution:									
% 0-4 Years Old	3.6%	5.8%		2.2%	4.3%		6.8%	6.8%	
% 5-17 Years Old	3.2%	5.1%		3.8%	6.5%		17.0%	19.1%	
% 18-29 Years Old	20.9%	24.4%		21.6%	37.5%		17.2%	12.3%	
% 30-44 Years Old	33.5%	31.1%		28.2%	29.0%		27.1%	23.1%	
% 45-64 Years Old	22.4%	24.8%		17.1%	11.1%		21.4%	27.5%	
% 65-74 Years Old	7.7%	4.4%		11.8%	3.2%		6.9%	5.8%	
% Over 74 Years Old	8.7%	4.3%		15.3%	8.4%		3.6%	5.4%	
Average Age (years)	43.4	38.1		45.8	35.5		35.3	38.9	
Households	3,524	7,390	109.7%	3,954	6,210	57.1%	257,560	350,000	35.9%
Average Household Size	1.52	1.61		1.49	1.69		2.62	2.66	
Tenure:									
% Rental	87.5%	72.6%		99.2%	96.1%		29.9%	25.7%	

	BETHESDA		SILVER SPRING		COUNTY	
	1987	2005	1987	2005	1987	2005
Race						
% White	95.1%	75.2%	58.2%	43.1%	84.2%	64.0%
% Black	3.0%	5.8%	35.0%	43.2%	9.3%	16.6%
% Asian or Pacific Islander	2.0%	12.2%	5.1%	9.4%	6.3%	13.4%
% Other		6.7%	1.7%	4.4%	0.2%	6.0%
Ethnicity						
% Hispanic Origin	8.0%	14.1%	6.6%	11.3%	5.4%	13.9%
Not Hispanic White		65.8%		37.2%		55.7%

	BETHESDA		SILVER SPRING		COUNTY			
	1993	2004	1993	2004	1993	2004		
Household Income Distribution								
% Under \$15,000		9.1%	5.3%		19.7%	9.5%	5.4%	4.2%
% \$15,000 to \$29,999		18.0%	5.4%		27.5%	14.1%	12.7%	7.3%
% \$30,000 to \$49,999		32.1%	21.9%		34.2%	28.4%	21.9%	14.5%
%%\$50,000 to \$69,999		18.5%	17.3%		12.9%	20.0%	19.8%	15.0%
%%\$70,000 to \$99,999		10.0%	19.6%		4.5%	20.7%	19.0%	18.6%
%%100,000+		12.3%			1.2%		21.2%	
%%\$100,000 to \$149,999			17.6%			6.0%		20.9%
%%\$150,000 to \$199,999			6.8%			1.0%		8.8%
%%\$200,000+			6.1%			0.2%		10.7%
Median Household Income		\$43,090	\$70,230		\$31,011	\$48,715	\$59,083	\$83,880

Source: Census Updates Survey, Montgomery County Planning Dept, Explore Division

- Land values were higher in the CBD's than the rest of the county from 1988 to 2008
- From 1988 to 2008, assessment growth per acre in Bethesda CBD was \$9.7 million, in Silver Spring CBD \$4.1 million and remaining County \$417 thousand

Bethesda and Silver Spring CBD Assessment Growth Per Acre 1988 to 2008

Place	Assessment Growth	Acres	20- Year Assessment Growth Per Acre
Bethesda	\$1,521,040,254	156	\$9,750,258
Silver Spring	\$1,572,957,949	377	\$4,172,302
County Remainder	\$131,959,241,118	315,736	\$417,942

Source: Explore Division, July 2009

HIGHER HOUSING SALES PRICES

In 1990 and 2008, the percentage change for median housing sale prices in Bethesda CBD rose faster than Countywide:

- Single Family Detached New & Used: Bethesda CBD 90.4% compared to County 62.1%
- Single Family Attached New & Used: Bethesda CBD 270.9% compared to County 70.4%
- Condos New & Used: Bethesda CBD 144.1% compared to County 85.7%

Housing Sales 1990 & 2008

Bethesda CBD Category	1990 *		2008		90 & 08	90 & 08	90 & 08	90 & 08
	Mean	Median	Mean	Median	\$ change Mean	\$ change Median	% change Mean	% change Median
New & Used Single Family Detached	\$385,097	\$407,002	\$811,667	\$775,000	\$426,570	\$367,998	110.8%	90.4%
New & Used Single Family Attached	283,589	\$238,589	947,500	\$885,000	\$663,911	\$646,411	234.1%	270.9%
New & Used Single Family Detached & Attached	\$359,720	\$371,366	\$866,000	\$775,000	\$506,280	\$403,634	140.7%	108.7%
New & Used Condominium	\$234,817	\$199,562	\$588,118	\$487,222	\$353,301	\$287,660	150.5%	144.1%

Silver Spring CBD** Category	2008	
	Mean	Medium
New & Used Single Family Detached	0	0
New & Used Single Family Attached	\$565,000	\$565,000
New & Used Single Family Detached & Attached	\$565,000	\$565,000
New & Used Condominium	\$317,103	\$313,260

County 1990* Category	1990*		2008		90 & 08	90 & 08	90 & 08	90 & 08
	Mean	Median	Mean	Median	\$ change Mean	\$ change Median	% change Mean	%change Median
New & Used Single Family Detached	\$396,175	\$326,352	\$643,090	\$529,000	\$246,915	\$202,648	62.3%	62.1%
New & Used Single Family Attached	\$222,323	\$196,562	\$373,608	\$334,900	\$151,285	\$138,338	68.0%	70.4%
New & Used Single Family Detached & Attached	\$328,735	\$262,582	\$555,380	\$449,975	\$226,645	\$187,393	68.9%	71.4%
New & Used Condominium	\$183,491	\$150,797	\$359,749	\$280,000	\$176,258	\$129,203	96.1%	85.7%

Note:

* Adjusted to 2008 dollars

**No home sales in Silver Spring CBD 1990

Source: Chart from Explore Division entitled 1990 & 2008 housing sales Bethesda & Silver Spring CBD Policy Areas

HIGHER TRANSIT RIDERSHIP

- Bethesda CBD: 3% annual increase between 1988 and 2007 in boardings
- Silver Spring’s ridership did not increase between 1988 and 2007 because after the openings of the Wheaton station in 1990 and the Glenmont station in 1998 the Silver Spring station was no longer the end of the Red Line.
- Since 2000, weekday boardings have increased at an average annual rate of 3% at the Bethesda station and 4% at the Silver Spring Station.
- Weekday boardings in 2007: Silver Spring 14,777; at Bethesda 10,738

Bethesda & Silver Spring Station Historical Metro Ridership Levels

Average Weekly Boardings		
Year	Bethesda	Silver Spring
1988	6,837	14,476
1989	7,305	15,729
1990	7,572	14,857
1991	7,401	13,385
1992	7,779	12,741
1993	7,193	11,778
1994	7,625	12,317
1995	7,501	11,311
1996	7,406	10,565
1997	7,596	10,354
1998	7,889	10,579
1999	7,885	10,610
2000	8,469	11,492
2001	8,591	12,040
2002	8,717	12,034
2003	9,205	12,374
2004	9,430	12,464
2005	9,946	13,078
2006	10,530	14,032
2007	10,738	14,777
Years	20	20
Avg Annual Growth Rate	3%	0%
% Change Since 2000	27%	29%
Years	8	8
Avg Annual Growth Rate	3%	4%

Source: Montgomery County Department of Transportation, 2008

TRAFFIC GROWTH

The Bethesda and Silver Spring CBDs have a robust roadway network that distributes traffic within the business district effectively. Traffic congestion is greatest for trips leaving the CBD during PM peak periods, where the robust network channels trips onto a limited number of major highways. Both CBDs have matured to the point where they are job centers rather than places to pass through. Roughly two-thirds of the traffic leaving Bethesda and Silver Spring during the afternoon peak hour is locally generated; one-third is through traffic.

As Bethesda, Silver Spring, and the region have grown, so have the traffic volumes on most of the state highways that connect the CBDs to the Capital Beltway. The aggregate growth in traffic from 1988 to 2008 is 12%, substantially lower than the 50% growth in VMT on state highways Countywide during the same time period.

Average Daily Traffic Volume on State Highways South of the Capital Beltway

Roadway	1988 ADT	2008 ADT
Old Georgetown Road (MD 187)	42,000	41,000
Rockville Pike (MD 355)	57,000	67,000
Connecticut Avenue (MD 185)	53,000	68,000
Georgia Avenue (MD 97)	55,000	63,000
Colesville Road (US 29)	50,000	55,000
TOTAL	257,000	294,000

**Gross Floor Area (sq. ft.) of Non-residential Buildings
Bethesda & Silver Spring CBD Policy Areas
1988 & 2009**

1988		
Building Type	Bethesda CBD	Silver Spring CBD
hotel	533,834	439,922
industrial	97,102	962,790
office	6,139,573	5,222,069
other	1,156,025	393,946
retail	1,201,083	1,120,076
Total sq. ft.	9,127,617	8,138,803

2009		
Building Type	Bethesda CBD	Silver Spring CBD
hotel	798,642	664,297
industrial	66,254	439,246
office	9,224,171	6,357,653
other	638,512	581,894
retail	1,415,824	1,403,219
Total sq. ft.	12,143,403	9,446,309

Change 1988 to 2009		
Building Type	Bethesda CBD	Silver Spring CBD
hotel	264,808	224,375
industrial	(30,848)	(523,544)
office	3,084,598	1,135,584
other	(517,513)	187,948
retail	214,741	283,143
Total sq. ft.	3,015,786	1,307,506

Source: State Department of Assessments and Taxation records

Growth Policy Study: Appendix C – Factors Affecting Demand for Public Facilities in Established Communities (Resolution 16-376 F11)

Lead Staff: Khalid Afzal

Summary:

A list of factors affecting the demand for public facilities has been identified. The Growth Policy staff from the Planning Department has been meeting with the County staff to discuss these and other growth policy topics. Additional factors would be added to the proposed list if deemed appropriate. Staff will continue to monitor these factors in coordination with County agencies and highlight those that need further study in the future growth policy deliberations.

The purpose of this analysis is to identify factors that influence the needs for public facilities and services in established communities stemming from demographic and other changes. The goal is to identify demand for infrastructure improvements, which could be recommended in future CIPs if the demand reaches a point where it cannot be accommodated through programmatic changes in existing facilities. This analysis does not include age of the infrastructure as a factor since the age of the infrastructure is not related to changes in the socio-economic or physical composition of the community it serves. Older pipes or bridges may need to be replaced regardless of the population changes or other factors. Most of these changes occur over a longer period of time giving the County enough time to assess the changing needs and accommodate them in the County’s infrastructure improvements through CIP and other funding mechanisms. The staff from the Planning Department has been meeting with the County staff to discuss these and other growth policy topics. Additional factors would be added to the following chart if deemed appropriate. Staff will continue to monitor these factors in coordination with County agencies and highlight those that need further study in the future growth policy deliberations. The accompanying chart describes the types of factors examined, including whether the effects currently being discussed are considered to be cyclical or sustained.

Infrastructure demand in established communities

In addition to new growth, the need for infrastructure improvements in older communities can be generated by various factors. Typically, demographic changes are the greatest driver for generating infrastructure needs in established communities. Neighborhoods go through a cycle of change overtime as older residents move out and younger families move in creating new demand for schools, playgrounds and other amenities. The County experienced this phenomenon in the late 70s and early 80s when many of the elementary schools were closed due to drop in enrollment. Starting in the early 90s and 2000s, the county had to look for additional schools sometimes reclaiming and refurbishing the closed schools.

Demographic changes could also generate need for other facilities such as parks and playgrounds, libraries, water and sewer, etc. Starting in the early 90s, the popularity of soccer generated demand for soccer fields. The County was able to address that need through building soccer fields as demand rose, including the Germantown soccer complex.

Some factors may be cyclical in nature and therefore do not generate demand for new facilities in established neighborhoods. For example, recent downturn in the economy has increased demand for library services. But this is considered cyclical and the demand for increased services can be accommodated within the existing facilities. If, however, this becomes a more sustained trend due to additional factors—population growth, new families in a neighborhood—it may lead to need for a new facility or expansion of an existing facility. Typically, these changes occur over a longer period of time giving the County enough time to assess the changing needs and address them through CIP and other funding mechanisms.

The following is a brief summary of how the service and capital facility needs are addressed for police, fire and rescue, water and sewer, and school enrollment changes.

Police:

Staffing changes are evaluated on two sources of change for the police: population growth; and change in calls for service. The County-wide staffing formula is based on calls for service. The

typical standard is 1.2 officers for every 1,000 people. In general, if there are any County-wide policy changes, the police respond with staffing changes. Due to increased community-based policing, for example, planning for additional police stations has become less and less important over the years. Police facilities are somewhat flexible because the officers are mobile. Each cruiser is essentially a mobile police station. Officers can effectively work in each community from their cruisers with “in-car computer workstations”. The current (1997) Police Facilities Master Plan is approved up to the year 2016 (20-year horizon) which shows adequate facilities for the foreseeable future.

Fire and Rescue:

Montgomery County Fire and Rescue Service (MCFRS) makes staffing and facility changes in response to changes in population growth, demographics (aging, more diverse), and new County-wide policies (i.e. the post 9/11 emergency preparedness policies). MCFRS evaluates the need for additional personnel/facilities using response time goals (5 minutes or less) and deployment criteria (more than 2,500 incidents to respond to per unit per year). As compared to police facilities, fire stations are less flexible as they need to be physically located to ensure they can reach any location in their service area within the response time goal.

All new projected growth and existing communities’ needs are coordinated through the Planning Department’s master plan updates and the MCFRS own master plan. The 2005 Fire, Rescue, Emergency Medical Services, and Community Risk Reduction Master Plan covers the period from 2005 to 2015 (10-year horizon), and does not project any service areas to be inadequate in the foreseeable future.

Water and sewer

According to the WSSC Planning Group, trunk line capacities will be evaluated based on a new modeling policy/procedure as new large development proposals are submitted through the WSSC’s Development Services Program. Trunk and local sewer lines may have to be improved in redevelopment areas depending on what is being proposed on different properties and can incur significant expense if additional capacity is required.

Of the areas planned for growth, the Sligo Creek watershed which has parts of Wheaton, Silver Spring and TLC is already approaching capacity and trunk sewer improvements will have to be

addressed in the next few years. The water and sewer model runs for the proposed redevelopment of White Flint, for example, indicated no issues from a capacity standpoint. However, more detailed analyses at the time of redevelopment may raise some local capacity issues in the future in all of these areas, particularly if any additional conveyance capacity is required for the redevelopment(s) proposed.

Energy efficiency techniques such as low-flow water metering devices can affect system demand and are considered in capacity analysis. These trends are generally oriented toward reduced per capita demand and therefore do not indicate a need to increase capital programming for water or sewer independent of growth.

Schools

School enrollment changes may be one of the most difficult to predict primarily due to the interaction of three factors; births, aging of the school-age population, and migration. According to the MCPS staff, countywide, approximately 20% of the demand for school infrastructure needs comes from new growth and the remaining 80% from changes in existing communities (tracked primarily through the housing sales records in the County). The most dramatic impact of new housing occurs in growth areas of the county, where large communities are being built such as Clarksburg. In more established areas of the county, where a majority of the housing supply already exists, the impact of infill subdivisions is modest. Depending on the size of an infill subdivision, turnover of existing housing is likely to have more of an impact, than new housing construction.

Births and the aging of children constitute what may be seen as “natural increase” in enrollment (comparable to natural increase in the total population.) Economic forces tied to job and housing opportunities drive migration, the more variable element of change. The recent school test for FY2010 placed three school clusters (Bethesda-Chevy Chase, Seneca Valley, and Clarksburg) into moratorium for residential division approvals. In the case of B-CC, the significant spike in enrollment stems from an unanticipated increase in kindergarten enrollment across the entire cluster. In addition, the number of families choosing public education over private has increased significantly in the past two years, although this choice is expected to be a cyclical response to national economic conditions rather than a sustained trend.

The staffs from the MCPS and the Planning Department work closely to monitor school enrolments and demographic changes in existing and new communities to determine future school capacity needs. According to MCPS, estimating the impact of resale of existing homes, and rentals of existing apartments, is less predictable since there is no way of knowing when an individual homeowner or renter will choose to move, broader indicators of turnover must be assessed. MCPS monitors enrollment change each year at every school to spot trends in the school's service area. In addition, all school principals in the county are asked to identify any trends they have observed in the communities they serve. Finally, activity in the housing market is examined to spot changes in supply and demand.

MCPS staff has become aware of the trend to multiple families occupying a single housing unit. This trend has most affected schools in areas of the county with affordable housing and large inventories of rental units. As with turnover of homes, this factor is best perceived, and projected, by studying enrollment trends at schools and discussing community change with principals and community members. There are no county records kept of multiple occupancies of housing units.

Traffic and Transit

The past three years have demonstrated the extent to which travel demands can fluctuate due to external factors beyond growth, notably the health of the economy and the cost of fuel. The 2009 Highway Mobility Report, summarized in Appendix F and available in full on the Planning Board website, provides additional information on state and local travel trends. In general, vehicular travel has dropped and transit ridership has grown over the past two years, independent of the amount of housing units or commercial square footage. During the past three years, the external variables of economic activity and energy costs have had noticeable, although fairly minor, effects on travel demand. If the County, region, and nation continue on a "business as usual" course, the travel changes in the past three years will likely be a temporary blip similar to those experienced in the early 1970s and 1980s. The degree to which the reduction in highway travel and the increase in transit travel represent a paradigm shift will depend on the degree to which land use and travel policies are changed to reflect global energy and environmental concerns.

Vehicle travel nationwide dropped by 109 billion miles, or about 4% between 2007 and 2008, with total 2008 travel similar to that in 2003.

- 2,890 billion miles driven in 2003
- 2,964 billion miles driven in 2004
- 2,989 billion miles driven in 2005
- 3,021 billion miles driven in 2006
- 3,030 billion miles driven in 2007
- 2,921 billion miles driven in 2008

This information is conveyed graphically in the figure below from the FHWA Travel Trends publication for May 2009 showing the moving 12-month total travel. The reduction in travel during the recession is the largest drop in vehicle miles travelled since records were kept in the 1960s, eclipsing similar effects during the 1973 energy crisis and the economic slowdown in the early 1980s. Vehicle travel nationwide has returned about to the levels it was in 2003, as per-capita travel was reduced but the national population increased by 5 percent from 290 million to 304 million.

The degree to which the reduction in vehicular travel is due to the economic slowdown, increased fuel prices, or discretionary behavioral changes is difficult to determine, but certain clues suggest all three forces are in play. Between December 2007 and December 2008, the Bureau of Labor Statistics estimates that the number of seasonally adjusted employees nationwide fell about 3%, from 138 million to 135 million.

For comparison purposes, Montgomery County lost about 4,800 jobs between the end of 2006 and the end of 2008, only a 1% reduction. In Montgomery County, the estimated vehicular miles of travel has also remained constant since 2005, with annual fluctuations of less than 1%.

Between 2007 and 2008, as travel on the nation's highways dropped by 4%, there was a 4% increase in transit travel. While passenger-mile estimates for 2008 are not available, we might estimate that the 53 billion miles of transit travel in 2007 also increased by 4%, representing about 2 billion miles of increased transit travel. In Montgomery County, total Metrorail boardings have increased about 5% from February 2006 to February 2009. Ride-On system use has also been on the rise, with 27.6 million trips in 2006 increasing by 6% to 29.2 million passengers in 2007. The increased transit travel indicates that some of the reduction in

highway travel was due to a modal shift as opposed to either the economic slowdown or discretionary travel changes.

The 2009-2011 Growth Policy recognizes that we are at a crossroads in terms of considering the global impact of energy costs and climate change. The solutions to these problems will likely require a combination of increased technological efficiencies and behavioral changes.

The EPA estimates that average on-road fuel economy for passenger cars and light-duty trucks (such as vans and SUVs) increased from 13 MPG in 1975 to 22 MPG in 1987, due to a combination of technological improvements and customer behavior. Between 1987 and 2008, technology improvements increased, but the average on-road fuel economy decreased to 21 MPG, due to the increasing proportion of SUVs in the vehicle fleet. Fuel efficiency and emissions are also linked to the efficiency of the transportation system; travel at higher speeds is more efficient than travel in stop-and-go traffic, so improved operations such as more efficient signal timing and the use of value pricing or dynamic lane control systems can reduce carbon emissions per mile traveled. Part of the solution will involve improved efficiency in fuels, emissions, and the transportation system.

Part of the solution lies in land use changes, an area where planning, zoning, and growth policy play a significant role. Montgomery County has an average household density of about 700 households per square mile, with densities ranging from 30 households per square mile in the Poolesville and Vicinity Planning Area to 3,700 households per square mile in the Silver Spring Planning Area. Using preliminary data from the 2008 National Household Transportation Survey, the Federal Highway Administration estimates that

- very low density communities (< 250 households per square miles) generate about 11 metric tons of CO₂ per year for travel.
- very high density communities (> 5,000 per square mile) generate about 6 metric tons of CO₂ per year for travel.

And finally, part of the solution lies in behavioral changes. The Climate Protection Plan recommends development of better information to link carbon footprint impacts to vehicle miles of travel, an initiative that the County is pursuing in conjunction with EPA. Montgomery County is undertaking two significant studies during FY 2010; one on the development of a Bus Rapid Transit network to improve person-throughput on congested roadways and another on the use of parking management techniques (both parking supply and pricing) to influence modal choices. Implementing the findings of these studies will help the County manage per-capita travel demand and greenhouse gas contributions.

An “x” means that a particular factor may change demand for that facility; the change could cause increase or decrease in demand for public services.

Factors	Cyclical	Sustained	Demand for public facilities/services											
			Schools	Roads	Transit	Police	Fire	Water	Sewer	Health	Parks	Rec Centers	Solid Waste	Libraries
Demographics														
Population change		x	x	x	x	x	x	x	x	x	x	x	x	x
Aging population		x			x					x		x		
Ethnic mix of population		x	x		x					x	x			
Household size		x	x	x	x			x	x		x	x	x	x
Economic conditions														
Unemployment	x											x		x
Higher gas prices	x	x			x									
Autos per dwelling unit		x		x										
Technological improvements														
Energy star appliances		x						x	x					
High-speed internet		x		x	x									
Changes in standards/regulations		x												
Changes in class size		x	x											
Universal Pre-K		x	x											

Cyclical: up to 10 years

Sustained: more than 10 years

