


MEMORANDUM

December 4, 2006

TO: Councilmembers

FROM: Marilyn J. Praisner   
Council Vice President

SUBJECT: Resolution and Subdivision Regulation

Attached you will find two documents, a resolution and a Subdivision Regulation (SRA) that I intend to introduce tomorrow, December 5<sup>th</sup>. I had planned to email them to you Sunday, but my home computer is not working properly.

The Council will vote December 12<sup>th</sup> on the resolution, which tasks MNCPPC with an expedited schedule for developing Annual Growth Policy recommendations. It is consistent with comments Royce Hanson made to us during our retreat and does not propose any specific action.

The SRA requires a public hearing, which is tentatively scheduled for January 16<sup>th</sup>. It modifies the process for approving preliminary plans in this interim period before a new Annual Growth Policy can be adopted.

If you have any questions about what is being proposed, please let me know. Anyone who would like to cosponsor either or both of these documents is welcome to do so and may indicate such prior to or during the introduction.

attachment  
MP:jlh

Ordinance No. \_\_\_\_\_  
Subdivision Regulation Amend. No. 06-03  
Concerning: Preliminary Subdivision  
Plans - Approvals - Applicability of  
Growth Policy Amendments  
Revised: 12-4-06 Draft No. 3  
Introduced: December 5, 2006  
Public Hearing: January 16, 2007  
Adopted: \_\_\_\_\_  
Effective: \_\_\_\_\_

**COUNTY COUNCIL  
FOR MONTGOMERY COUNTY, MARYLAND  
SITTING AS THE DISTRICT COUNCIL FOR THAT PORTION  
OF THE MARYLAND-WASHINGTON REGIONAL DISTRICT  
WITHIN MONTGOMERY COUNTY, MARYLAND**

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By: Council Vice-President Praisner

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**AN AMENDMENT** to the Subdivision Regulations to:

- (1) suspend for a certain period of time the approval of certain preliminary plans of subdivision;
- (2) provide for the applicability of certain growth policy or adequate public facilities requirements to certain subdivisions; and
- (3) generally amend the process for approving and accepting applications for preliminary plans of subdivision and similar Planning Board actions.

By adding the following sections of County Code Chapter 50:

Section 50-35B, Suspension of certain preliminary subdivision plan approvals.

<b>Boldface</b>	<i>Heading or defined term.</i>
<u>Underlining</u>	<i>Added to existing law by original bill.</i>
[Single boldface brackets]	<i>Deleted from existing law by original bill.</i>
<u>Double underlining</u>	<i>Added by amendment.</i>
[[Double boldface brackets]]	<i>Deleted from existing law or the bill by amendment.</i>
* * *	<i>Existing law unaffected by bill.</i>

OPINION

ORDINANCE

*The County Council for Montgomery County, Maryland, sitting as the District Council for that portion of the Maryland-Washington Regional District in Montgomery County, Maryland, approves the following Ordinance:*

1           **Sec. 1. Section 50-35B is added as follows:**

2    **50-35B.    Suspension of certain preliminary subdivision plan approvals.**

3           (a)   Except as provided in subsections (b) and (c), the Planning Board  
4               must not approve or amend any preliminary plan of subdivision while  
5               this Section is in effect.

6           (b)   The Board may approve a plan for a subdivision that:

7               (1)   is located entirely in a Metro Station Policy Area, as defined in  
8               the County growth policy, or an enterprise zone; or

9               (2)   would add 5 or fewer peak hour trips, as defined under the  
10              County growth policy, and is not located in the Poolesville or  
11              Goshen Policy Areas.

12          (c)   The Board may amend a preliminary subdivision plan that the Board  
13              approved before this Section took effect if:

14              (1)   the amendment would not add more than 5 peak hour trips to  
15              the number previously approved for that subdivision; and

16              (2)   the subdivision is not located in the Poolesville or Goshen  
17              Policy Areas.

18          (d)   Any subdivision for which an application for a preliminary  
19              subdivision plan was filed on or after December 5, 2006, must be  
20              subject to any growth policy or other adequate public facilities  
21              requirement adopted before the Planning Board approves that plan.

22          **Sec. 2. Effective date.** This ordinance takes effect on the date of Council  
23          adoption.

24          **Sec. 3. Expiration.** Section 50-35B, added by Section 1 of this ordinance,  
25          expires on August 15, 2007.

26 *Approved:*

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Isiah Leggett, County Executive

Date

29 *This is a correct copy of Council action.*

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Linda M. Lauer, Clerk of the Council

Date

SUPPLEMENT

Resolution No:  
Introduced: December 5, 2006  
Adopted:

COUNTY COUNCIL FOR MONTGOMERY COUNTY, MARYLAND  
SITTING AS A DISTRICT COUNCIL FOR THAT PORTION  
OF THE MARYLAND-WASHINGTON REGIONAL DISTRICT  
WITHIN MONTGOMERY COUNTY, MARYLAND

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By: District Council

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Subject: Notice of Public Hearing on Subdivision Regulation Amendment 06-03

Background

1. Section 50-6A of the Montgomery County Code requires that, within thirty days of introduction of any subdivision regulation amendment, the Council act by resolution to set a date and time for public hearing on the proposed subdivision regulation amendment.
2. Subdivision Regulation Amendment 06-03 which would amend the Subdivision Regulations to: suspend for a certain period of time the approval of certain preliminary plans of subdivision; provide for the applicability of certain growth policy or adequate public facilities requirements to certain subdivisions; and generally amend the process for approving and accepting applications for preliminary plans of subdivision and similar Planning Board actions, was introduced on December 5, 2006.

Action

The County Council for Montgomery County, Maryland, sitting as the District Council for that portion of the Maryland-Washington Regional District in Montgomery County, Maryland approves the following resolution:

Legal notice will be given of the public hearing to be held on January 16, 2007 at 7:30 p.m., in the Council Hearing Room, Stella Werner Council Office Building, Rockville, Maryland, for the purpose of giving the public an opportunity to comment on the proposed amendment.

This is a correct copy of Council action.

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Linda M. Lauer, Clerk of the Council

## Pending Preliminary Plans

1/5/07

<u>Plan</u>	<u>Submission</u>	<u>Residential</u>	<u>Commercial</u>	<u>5 or fewer</u>	<u># of</u>
<u>Number</u>	<u>Project Name</u>	<u>Complete</u>	<u>DUs</u>	<u>SF</u>	<u>Trips</u>
					<u>MPDUs</u>
<b>Aspen Hill Policy Area</b>					
<b>New Applications</b>					
120040350	GIANT FOOD EXPANSION	10/29/03	0	29,738	No 0
120070430	HOMECREST, LOTS 71-76	12/4/06	6	0	No 0
120070490	LAYHILL OVERLOOK	12/18/06	39	10,800	No 6
<i>3 pending preliminary plans in the Aspen Hill Policy Area</i>			<b>45</b>	<b>40,538</b>	<b>6</b>
<b>Bethesda/Chevy Chase Policy Area</b>					
<b>New Applications</b>					
120070220	HELMSDALE ROAD	10/9/06	1	0	No 0
<i>1 pending preliminary plans in the Bethesda/Chevy Chase Policy Area</i>			<b>1</b>	<b>0</b>	<b>0</b>
<b>Clarksburg Policy Area</b>					
<b>New Applications</b>					
120050950	TAPESTRY	5/4/05	82	0	No 12
120070470	AVALON SCHOOL	12/13/06	0	108,724	No 0
<b>Amendments</b>					
12001030C	CLARKSBURG VILLAGE	10/30/06	2654	20,000	No 398
<i>3 pending preliminary plans in the Clarksburg Policy Area</i>			<b>2,736</b>	<b>128,724</b>	<b>410</b>
<b>Cloverly Policy Area</b>					
<b>New Applications</b>					
120030080	OLD SALEM VILLAGE	8/6/02	16	0	No 0
120030200	KOREAN ANTIOCH CHURCH	10/2/02	0	32,802	No 0
<b>Amendments</b>					
12004092A	PATTON PROPERTY PHASE II	11/8/06	5	0	No 0
<i>3 pending preliminary plans in the Cloverly Policy Area</i>			<b>21</b>	<b>32,802</b>	<b>0</b>
<b>Damascus Policy Area</b>					
<b>New Applications</b>					
120061180	STERN PROPERTY	5/16/06	12	0	No 0
120070340	DAMASCUS SMART-MINER	11/1/06	15	0	No 0
<b>Amendments</b>					
11997058A	FIRST BAPTIST CHURCH OF DAMASC		0	34,367	No 0
<i>3 pending preliminary plans in the Damascus Policy Area</i>			<b>27</b>	<b>34,367</b>	<b>0</b>
<b>Derwood Policy Area</b>					
<b>New Applications</b>					
120070300	SOUTHLAWN	10/26/06	0	4,524	No 0
120070320	SHADY GROVE (PARCELS 6 & 7)	10/27/06	470	329,300	No 71
<i>2 pending preliminary plans in the Derwood Policy Area</i>			<b>470</b>	<b>333,824</b>	<b>71</b>
<b>Darnestown/Travilah Policy Area</b>					
<b>New Applications</b>					
120060710	SUTTON PROPERTY	1/10/06	10	0	No 0
120061000	PETRUCCELLI'S CORNER	3/29/06	0	14,100	No 0
120061230	BUTZ PROPERTY	6/13/06	45	0	No 0
<i>3 pending preliminary plans in the Darnestown/Travilah Policy Area</i>			<b>55</b>	<b>14,100</b>	<b>0</b>

<u>Plan</u>	<u>Submission</u>	<u>Residential</u>	<u>Commercial</u>	<u>5 or fewer</u>	<u># of</u>	
<u>Number</u>	<u>Project Name</u>	<u>Complete</u>	<u>DUs</u>	<u>SF</u>	<u>Trips</u>	<u>MPDUs</u>
<b>Fairland/White Oak Policy Area</b>						
<b>New Applications</b>						
120050640	TOPAZ TRACE	1/12/05	73	0	No	11
120060170	THE UNITED CHRISTIAN CHURCH	8/10/05	0	17,714	No	0
120060300	ROLLING ACRES, BLOCK 2	8/30/05	10	0	No	0
120060410	HELLER REALTY EAST	10/6/05	8	0	No	0
120060600	SEIBEL'S SUBDIVISION LOT 2	12/5/05	12	0	No	0
120061090	KUSHNER PROPERTY	4/26/06	36	0	No	5
120061140	FAIRLAND ROAD	5/8/06	5	0	No	0
120070140	RANDOLPH PLAZA	8/12/06	0	22,709	No	0
120070260	BURN BRAE PROPERTY	10/18/06	64	0	No	10
120070450	MARTINS PROPERTY	12/5/06	15	0	No	0
<i>10 pending preliminary plans in the Fairland/White Oak Policy Area</i>			223	40,423		26
<b>Germantown East Policy Area</b>						
<b>New Applications</b>						
120070310	NEELSVILLE ESTATES	10/27/06	9	0	No	0
<i>1 pending preliminary plans in the Germantown East Policy Area</i>			9	0		0
<b>Goshen Policy Area</b>						
<b>New Applications</b>						
120040640	GANASSA PROPERTY	2/24/04	8	0	No	0
120060740	CLEMENT EAST PROPERTY	1/17/06	18	0	No	0
120060750	CLEMENT WEST PROPERTY	1/18/06	9	0	No	0
120061130	NEHOUSE PROPERTY	5/4/06	8	0	No	0
120070030	DAMASCUS RIDGE	7/25/06	3	0	Yes	0
<b>Amendments</b>						
12002032A	JONES PROPERTY	4/26/05	10	0	No	0
12006027A	BURTON WOODS PHASE TWO	8/4/06	7	0	No	0
<i>7 pending preliminary plans in the Goshen Policy Area</i>			63	0		0
<b>Germantown West Policy Area</b>						
<b>New Applications</b>						
120060970	GERMANTOWN ESTATES	3/24/06	0	15,600	No	0
<i>1 pending preliminary plans in the Germantown West Policy Area</i>			0	15,600		0
<b>Kensington/Wheaton Policy Area</b>						
<b>New Applications</b>						
120050870	STRATHMORE AT BEL PRE, LOT 44	4/13/05	0	7,045	No	0
120060120	BRAND PROPERTY	8/3/05	5	0	No	0
<i>2 pending preliminary plans in the Kensington/Wheaton Policy Area</i>			5	7,045		0
<b>Montgomery Village/Airpark Policy Area</b>						
<b>New Applications</b>						
120060280	MEADOWVALE	8/29/05	15	0	No	0
120061220	STRAWBERRY KNOLL	5/26/06	13	0	No	0
<b>Amendments</b>						
11987040A	MOTHER OF GOD COMMUNITY	7/13/04	0	23,068	No	0
<i>3 pending preliminary plans in the Montgomery Village/Airpark Policy Ar</i>			28	23,068		0
<b>North Bethesda Policy Area</b>						
<b>New Applications</b>						
120061250	MONTROSE	6/19/06	0	1,206	No	0
120070180	HOLLYOAK	10/3/06	5	0	No	0
<i>2 pending preliminary plans in the North Bethesda Policy Area</i>			5	1,206		0



<u>Plan</u> <u>Number</u>	<u>Project Name</u>	<u>Submission</u> <u>Complete</u>	<u>Residential</u> <u>DUs</u>	<u>Commercial</u> <u>SF</u>	<u>5 or fewer</u> <u>Trips</u>	<u># of</u> <u>MPDUs</u>
<b>North Potomac Policy Area</b>						
<b>New Applications</b>						
120051000	SMOKEY GLEN FARM	5/18/05	0	55,000	No	0
120070270	QUINCE TRACE	10/19/06	45	0	No	0
120070350	HALLMAN GROVE	11/6/06	28	0	No	4
<i>3 pending preliminary plans in the North Potomac Policy Area</i>			73	55,000		4
<b>Olney Policy Area</b>						
<b>New Applications</b>						
120040570	JOHNSON FAMILY ENT.,LTD. PART.	2/4/04	0	139,310	No	0
120060330	MARIAN FATHERS	9/12/05	47	148,103	No	7
120060610	NORBECK CROSSING	12/6/05	322	0	No	43
120060850	BATCHELLORS FOREST	2/21/06	37	0	No	5
120061100	STANMORE (FORMERLY-HYDE PROP)	4/28/06	30	0	No	3
120061240	PARKER MEMORIAL BAPTIST CHURCH	6/13/06	0	21,700	No	0
120070080	KIRK FARM	8/11/06	0	8,175	No	0
<i>7 pending preliminary plans in the Olney Policy Area</i>			436	317,288		58
<b>Patuxent Policy Area</b>						
<b>New Applications</b>						
120050060	ASHTON MEETING PLACE	7/9/04	0	78,800	No	0
120060360	DERWOOD BIBLE CHURCH	9/19/05	0	90,740	No	0
120060390	ASHTON ESTATES	9/27/05	5	0	No	0
120060830	BENNETT KNOLLS	2/15/06	29	27,502	No	0
120060940	KRUHM PROPERTY	3/21/06	16	0	No	0
120061010	SPENCERVILLE KNOLLS	3/30/06	1	4,800	No	0
120061160	ATHEY PROPERTY	5/16/06	12	0	No	0
120070120	BENTLEY RIDGE	8/29/06	2	10,400	No	0
120070330	DERRICKS ADDITION TO ASHTON	10/30/06	0	12,137	No	0
<i>9 pending preliminary plans in the Patuxent Policy Area</i>			65	224,379		0
<b>Potomac Policy Area</b>						
<b>Amendments</b>						
12003029A	PARK POTOMAC (FORTUNE PARC)	10/19/06	600	850,000	No	75
<i>1 pending preliminary plans in the Potomac Policy Area</i>			600	850,000		75
<b>Poolsville Policy Area</b>						
<b>New Applications</b>						
120050670	DZYAK PROPERTY	1/24/05	1	7,842	No	0
120050740	HILLTOP FARMS	2/23/05	8	0	No	0
120060700	HANCOCK/ANDERSON PROPERTY	1/6/06	3	0	Yes	0
120060810	DUCKS END	2/7/06	4	0	Yes	0
120070040	CALCO FENCE	8/3/06	1	1,800	No	0
120070110	HEITMULLER PROPERTY	8/28/06	3	0	Yes	0
<i>6 pending preliminary plans in the Poolsville Policy Area</i>			20	9,642		0
<b>Rock Creek Policy Area</b>						
<b>New Applications</b>						
120060320	BOWIE MILL ESTATES	9/7/05	186	0	No	28
<i>1 pending preliminary plans in the Rock Creek Policy Area</i>			186	0		28
<b>Silver Spring/Takoma Park Policy Area</b>						
<b>New Applications</b>						
120050860	LYTTONSVILLE	4/12/05	19	0	No	0
120070230	WOODSIDE	10/11/06	6	0	No	0
<i>2 pending preliminary plans in the Silver Spring/Takoma Park Policy Area</i>			25	0		0

Table 1

**Growth in Households and Jobs, Montgomery County, MD  
1970-2006**

	HOUSEHOLDS			JOBS		
	Households	Change	Rate	Jobs	Change	Rate
1970	156,674	4,426	2.8%	160,490	9,170	5.7%
1971	161,100	7,000	4.3%	169,660	11,040	6.5%
1972	168,100	7,900	4.7%	180,700	17,050	9.4%
1973	176,000	9,000	5.1%	197,750	16,510	8.3%
1974	185,000	6,400	3.5%	214,260	6,000	2.8%
1975	191,400	2,200	1.1%	220,260	8,990	4.1%
1976	193,600	2,000	1.0%	229,250	11,920	5.2%
1977	195,600	3,200	1.6%	241,170	14,530	6.0%
1978	198,800	3,200	1.6%	255,700	17,320	6.8%
1979	202,000	5,195	2.6%	273,020	7,880	2.9%
1980	207,195	4,605	2.2%	280,900	12,760	4.5%
1981	211,800	5,000	2.4%	293,660	-5,050	-1.7%
1982	216,800	4,000	1.8%	288,610	10,500	3.6%
1983	220,800	6,700	3.0%	299,110	23,670	7.9%
1984	227,500	8,500	3.7%	322,780	26,510	8.2%
1985	236,000	10,100	4.3%	349,290	17,670	5.1%
1986	246,100	10,700	4.3%	366,960	19,610	5.3%
1987	256,800	10,100	3.9%	386,570	14,060	3.6%
1988	266,900	8,700	3.3%	400,630	15,570	3.9%
1989	275,600	6,628	2.4%	416,200	-1,800	-0.4%
1990	282,228	3,672	1.3%	414,400	-16,100	-3.9%
1991	285,900	5,300	1.9%	398,300	-1,620	-0.4%
1992	291,200	3,700	1.3%	396,680	2,380	0.6%
1993	294,900	3,600	1.2%	399,060	8,150	2.0%
1994	298,500	3,300	1.1%	407,210	6,910	1.7%
1995	301,800	3,500	1.2%	414,120	-1,420	-0.3%
1996	305,300	3,500	1.1%	412,700	14,380	3.5%
1997	308,800	6,200	2.0%	427,080	13,020	3.0%
1998	315,000	3,600	1.1%	440,100	16,270	3.7%
1999	318,600	4,800	1.5%	456,370	19,530	4.3%
2000	323,400	4,200	1.3%	475,900	11,700	2.5%
2001	327,600	4,200	1.3%	487,600	1,900	0.4%
2002	331,800	5,500	1.7%	489,500	-140	0.0%
2003	337,300	4,700	1.4%	489,360	2,450	0.5%
2004	342,000	5,000	1.5%	491,810	8,190	1.7%
2005	347,000	3,500	1.0%	500,000	9,000	1.8%
2006	350,500			509,000		

*Household data sources: For years ending in zero (1970, 1980, etc) the source is the Census Bureau and the figure is for April 1 of that year. For other years, the estimates are for January 1 of the year, and are estimated by the Research & Technology Center, M-NCPPC.*

*Job data sources: All estimates by the Research & Technology Center, M-NCPPC based on data provided by the Maryland Department of Labor, Licensing and Regulation.*

Table 2

## New Housing Units Authorized for Construction, 1990 to 2005

by Jurisdiction

JURISDICTION	2005	2004	2003	2002	2001	2000	1999	1998	1997	1996	1995	1994	1993	1992	1991	1990
Anne Arundel	2,495	2,364	3,001	2,359	2,492	3,078	3,633	3,638	2,606	3,083	3,288	3,257	3,730	3,615	2,464	3,911
Frederick	1,872	1,773	1,837	1,578	1,983	2,747	2,667	1,903	1,798	1,669	1,525	1,891	2,552	2,208	1,763	2,127
Howard	1,778	1,837	1,479	1,547	1,327	2,182	2,295	2,205	2,156	1,726	1,799	1,966	1,861	2,603	1,772	1,303
Montgomery	3,591	3,821	4,428	5,013	5,249	4,950	4,253	5,315	3,682	3,062	3,682	3,590	3,141	3,485	3,276	5,077
Prince George's	3,425	1,948	2,938	2,563	3,049	3,456	2,615	4,376	3,360	3,162	3,584	4,242	5,339	4,638	3,237	4,752
<b>Total</b>	<b>13,161</b>	<b>11,743</b>	<b>13,683</b>	<b>13,060</b>	<b>14,100</b>	<b>16,413</b>	<b>15,463</b>	<b>17,437</b>	<b>13,602</b>	<b>12,702</b>	<b>13,878</b>	<b>14,946</b>	<b>16,623</b>	<b>16,549</b>	<b>12,512</b>	<b>17,170</b>

\*Includes incorporated places and unincorporated areas of each county. The shaded number highlights the jurisdiction with the largest number of housing units authorized that year.  
 Prepared by Montgomery County Planning MD Department of Planning, Research & Technology Center  
 SOURCE: Maryland Department of Planning, Planning Data Services

### Residential Building Permits

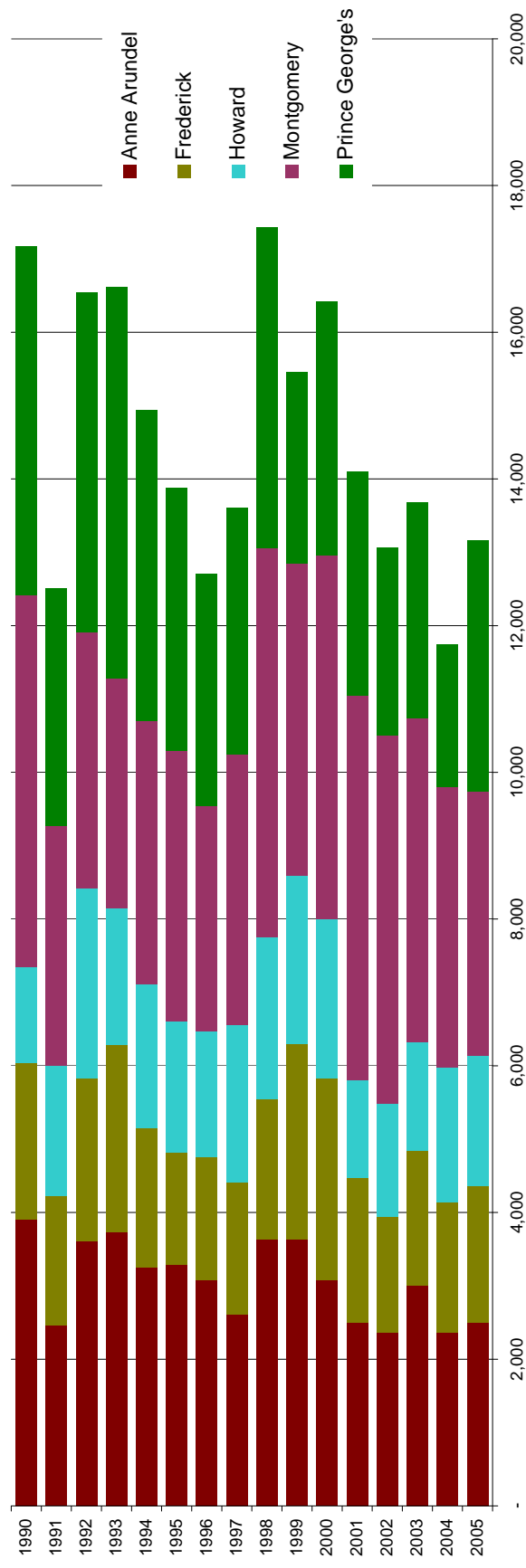


Table 3

**Residential Development: Past Construction, the Pipeline of Approved Development, Future Growth**  
 1990-2004, present, 2005-2020

Pace of Past Construction			Policy Area	Pipeline of Approved Development (Units)	Pace of Future Growth		
1990-94 (Units)	1995-1999 (Units)	2000-2004 (Units)			2005-2010 (Hhlds)	2010-2015 (Hhlds)	2015-2020 (Hhlds)
1,331	756	869	Aspen Hill	168	370	230	65
369	344	966	Bethesda CBD	850	990	1,958	1,265
506	771	891	Bethesda/Chevy Chase	284	164	225	335
76	112	1,089	Clarksburg	7,226	3,820	4,260	3,510
142	249	264	Cloverly	195	120	105	60
46	232	398	Damascus	97	120	260	240
236	55	101	Derwood	191	115	445	105
1,246	527	1,852	Fairland/White Oak	1,279	665	660	235
0	0	0	Friendship Heights	933	433	500	0
2,184	1,805	2,273	Gaithersburg City	2,677	972	1,555	1,400
866	2,268	464	Germantown East	199	419	150	0
1,753	2,935	3,304	Germantown Town Center	812	610	0	0
56	36	407	Germantown West	374	592	395	240
0	0	3	Glenmont	0	0	320	610
0	16	537	Grosvenor	473	1,419	0	187
245	207	347	Kensington/Wheaton	1,008	280	615	290
1,566	508	49	Montgomery Village/Airpark	149	390	30	25
243	412	485	North Bethesda	1,102	705	619	400
856	957	400	North Potomac	65	250	235	80
1,265	1,182	588	Olney	332	410	510	720
535	909	390	Potomac	789	810	240	325
744	757	807	R & D Village	56	680	860	830
408	393	4,356	Rockville City	4,486	2,499	987	250
5	621	0	Shady Grove	0	365	1,289	2,240
749	39	499	Silver Spring CBD	2,441	2,417	600	1,600
215	94	74	Silver Spring/Takoma Park	326	469	265	520
0	0	0	Twinbrook	0	372	371	371
138	6	195	Wheaton CBD	198	315	70	880
207	807	209	White Flint	2,025	834	1,281	587
1,229	1,748	1,812	Rural Area	665	1,395	965	530
17,216	18,565	23,581	Montgomery County	29,400	23,000	20,000	17,900

Source: Research & Technology Center, M-NCPPC

Past construction is based on completed units added to the property tax rolls.

The pipeline of approved development consists of projects approved by the Planning Board through the end of 2006. The number of units in each project has been reduced by the number of units completed through the 3rd quarter of 2006.

Pace of future growth is based on Round 7.0 Cooperative (household) forecasts prepared by the Research & Technology Center.

Table 4

**Non-Residential Development: Past Construction, the Pipeline of Approved Development, Future Growth**  
 1990-2004, present, 2005-2020

Pace of Past Construction			Policy Area	Pipeline of Approved Development (Jobs)	Pace of Future Growth		
1990-94 (Jobs)	1995-1999 (Jobs)	2000-2004 (Jobs)			2005-2010 (Jobs)	2010-2015 (Jobs)	2015-2020 (Jobs)
85	435	15	Aspen Hill	92	76	61	58
2,728	1,932	6,152	Bethesda CBD	280	1,640	1,342	1,115
57	24	339	Bethesda/Chevy Chase	1,190	2,005	1,910	1,856
188	8	2,018	Clarksburg	9,840	1,125	4,686	4,559
0	513	179	Cloverly	5	12	9	11
550	50	46	Damascus	13	12	11	17
712	888	2,021	Derwood	1,097	569	1,607	1,321
1,240	1,685	1,180	Fairland/White Oak	6,494	6,481	1,121	2,108
265	0	1,096	Friendship Heights	6,946	1,076	614	529
5,080	6,807	3,630	Gaithersburg City	12,594	3,628	3,132	4,037
128	2,790	3,169	Germantown East	8,003	2,233	2,812	2,555
551	189	1,068	Germantown Town Center	6,923	546	310	331
1,593	1,462	2,450	Germantown West	797	1,468	1,710	1,900
68	0	150	Glenmont	17	10	2	2
141	0	30	Grosvenor	0	4	3	2
64	105	277	Kensington/Wheaton	263	312	259	247
943	342	837	Montgomery Village/Airpark	3,743	763	556	872
5,301	2,145	1,364	North Bethesda	5,942	2,921	2,092	1,726
166	89	44	North Potomac	165	70	56	52
339	452	357	Olney	266	78	87	91
567	307	203	Potomac	4,605	1,389	998	663
1,592	3,044	7,822	R & D Village	6,375	1,739	944	867
1,861	4,586	9,459	Rockville City	26,262	12,334	6,104	6,155
202	94	380	Shady Grove	80	43	1,456	892
4,692	525	4,262	Silver Spring CBD	1,618	1,314	879	762
242	0	20	Silver Spring/Takoma Park	305	283	219	203
40	57	1,927	Twinbrook	1,280	209	239	211
288	144	299	Wheaton CBD	10	231	370	171
1,867	40	733	White Flint	6,339	2,132	1,119	1,397
949	492	506	Rural Area	788	297	292	290
32,499	29,205	52,033	Montgomery County	112,232	45,000	35,000	35,000

Source: Research & Technology Center, M-NCPPC

Past construction is based on completed projects added to the property tax rolls.

The pipeline of approved development consists of projects approved by the Planning Board through the end of 2006. The amount of development, expressed in jobs, in each project has been reduced by the amount of development completed through the 3rd quarter of 2006.

Pace of future growth is based on Round 7.0 Cooperative (job) forecasts prepared by the Research & Technology Center.



February 14, 2003

## Memorandum

**To:** Montgomery County Planning Board

**From:** Karl Moritz, Research Manager, 301-495-1312

**Re:** Annual Growth Policy: Factors Affecting School Enrollment Change

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Please find attached a short report on the factors affecting school enrollment change in Montgomery County that MCPS staff has prepared for the AGP study. Among the issues involved in evaluating the current AGP school test is the extent to which enrollment change is due to new development, and the extent to which it is due to other factors. As the MCPS report notes, all of the factors affecting school enrollment are interrelated and these interrelationships are variable and complex. For example, new development can have major or modest impacts on school enrollment, depending on the background enrollment trends in the area.

Park and planning staff appreciates MCPS's contribution to the AGP study, which has involved providing analytical material such as this report and participating in policy discussions, the AGP focus groups, and informal meetings.

# Factors Affecting Montgomery County Public Schools

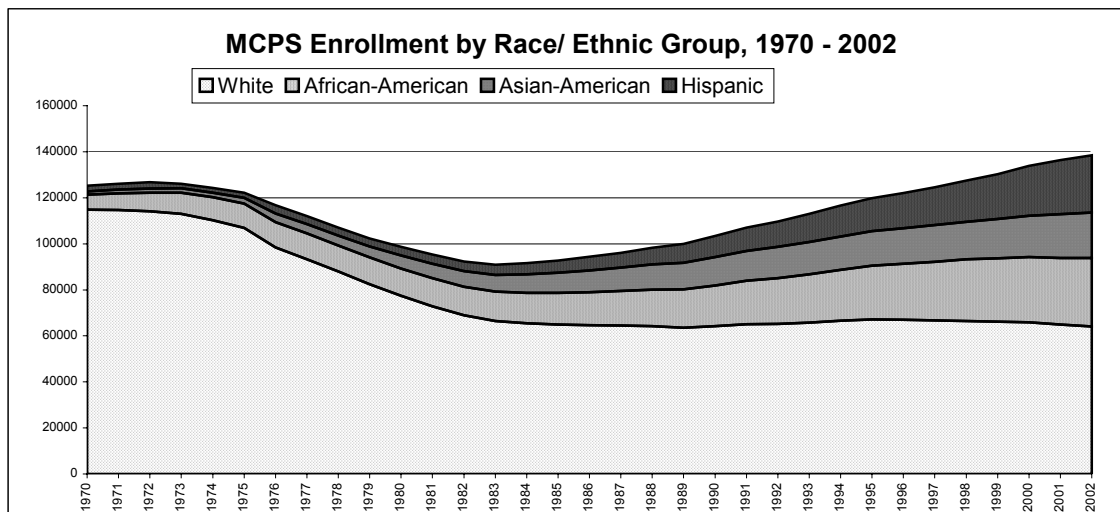
## Enrollment Change

February 11, 2003

### **Background**

Since 1986, when the Annual Growth Policy (AGP) was first applied, Montgomery County Public Schools (MCPS) enrollment has grown from 94,460 to 138,891 students. This increase of 44,431 students represents nearly a 50 percent increase in the size of the system since the AGP schools test began. From 1986 to the current 2002-03 school year 23 elementary schools, 15 middle schools, and 4 high schools have opened. Numerous additions to schools have also been built over this period. At the same time as space has been added to the system, there has been the need to modernize older schools. From 1986 to the current 2002-03 school year 42 elementary schools, 8 middle schools, and 8 high schools have been modernized. The need for both new schools and modernized schools compounds funding requirements for the MCPS Capital improvements Program (CIP.)

One of the most important characteristics of the enrollment change seen since 1986 has to do with the race and ethnic composition of enrollment. The entire enrollment increase since 1986 can be attributed to growth in African-American, (+15,413), Asian-American (+10,294), Hispanic (+19,070), and American Indian (+286), enrollment. White (non-Hispanic) enrollment has decreased by 632 since 1986.



As changes in race and ethnic diversity have contributed to enrollment growth, so has a more socio-economically diverse student population. In the mid-1980's, participation rates in the Free and Reduced-Price Meals (FARMS) program were at about 12 percent of total enrollment. Today the rate has nearly doubled to approximately 22 percent. Enrollment in the MCPS English for Speakers of Other Languages (ESOL) program has

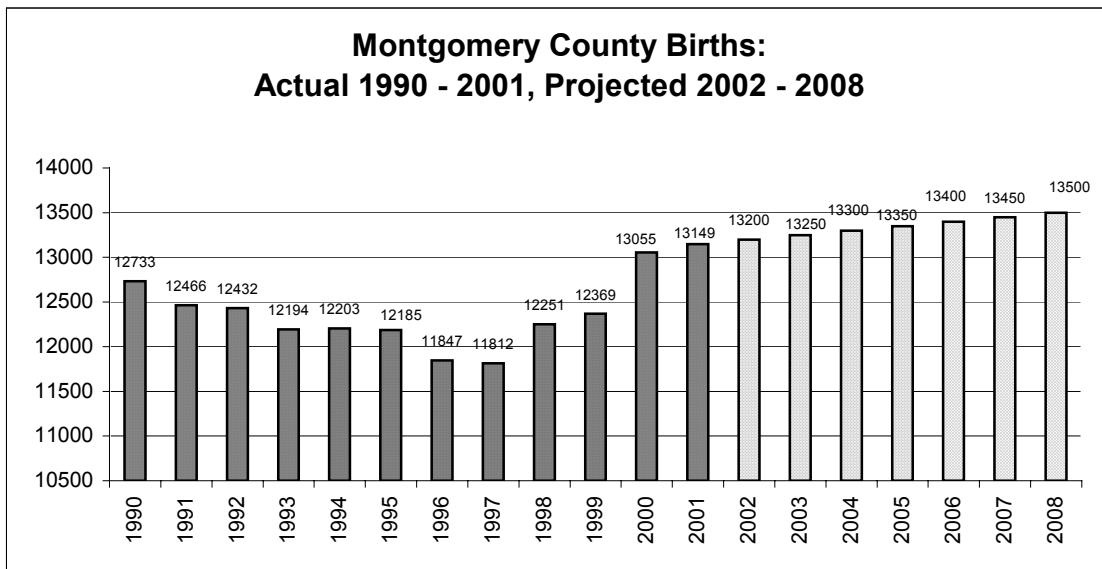
seen similar increases. In the mid-1980's about 4.5 percent of MCPS enrollment was enrolled in the ESOL program. Today 8.5 percent of enrollment is in the program.

### Factors Affecting Enrollment Change

Enrollment change is the result of the interaction of three factors; births, aging of the school-age population, and migration. 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.

### Births

Montgomery County resident births increased from 10,351 in 1986 to 13,149 in 2001. Between 1990 and 1997 county births trended downward. There was some thought that this presaged a long term trend for births, and hence for school enrollment. Such a peaking and cycling downward in births and school enrollment would have followed the model of the baby boom – baby bust eras. Under this model schools that are currently at high enrollment levels could look forward to declines in the future as smaller birth cohorts began aging through the system. However, birth counts from 1998 through 2001 showed increases each year. In 2000 a particularly dramatic increase to 13,055 births was recorded. Then, in 2001, an even higher birth count, of 13,149 was reported. Birth forecasts from the Montgomery County Department of Park and Planning were raised over this period, to the point where now the forecast is for continuing gradual increases in annual births for the foreseeable future. This forecast is in agreement with national forecasts for births that show comparable increases.



The upward trend in births is a by-product of a more diverse population with differences in fertility rates, household size, and median age. The 2000 U.S. Census shows that, with 26.7 percent of county population foreign born, trends in the county's diverse population are having a major impact on overall county demographics. In 2000 the White, non-Hispanic population had the lowest average household size, at 2.44, and the highest



median age, at 40.8. In contrast other race and ethnic groups had larger household sizes (Hispanic 3.87, Asian American 3.17, and African-American 2.68) and lower median ages (Hispanic 28.5, African-American 32.2, and Asian-American 35.2.) As these trends have taken hold in the county, births to White, non-Hispanic women have become a decreasing share of total births. In 2001, White, non-Hispanic, births dropped below 50 percent of total county births for the first time.

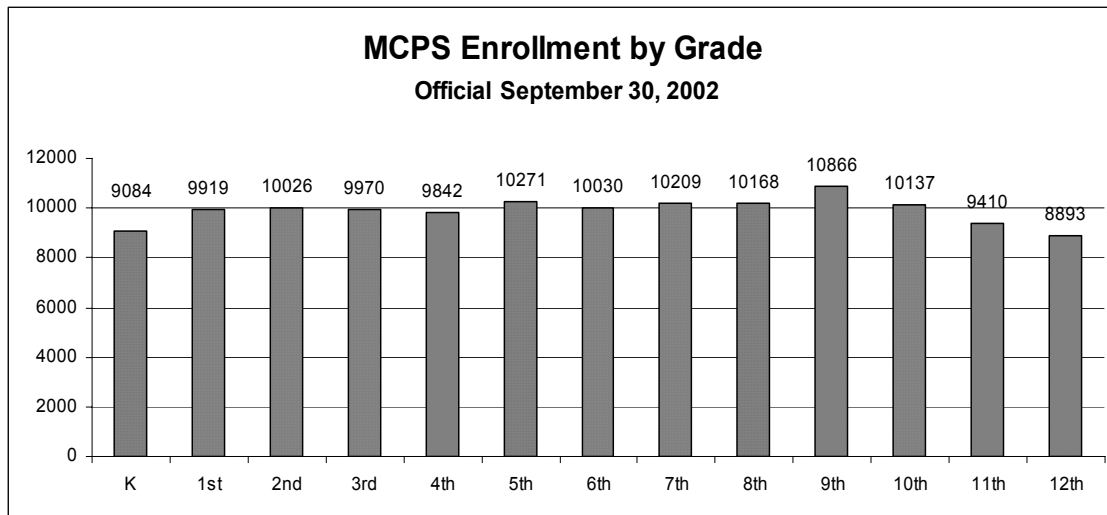
Trends in county births compared to Kindergarten enrollment are assessed every year by MCPS. Kindergarten enrollment in any given year represents about 75 percent of resident births five years earlier. This relationship makes it possible to fairly accurately project future Kindergarten enrollment based on the latest trends in births and the forecast for future births. With the dramatic increase in births recorded in 2000 and 2001 it became evident that the school system could not look forward to the kind of long-term facility relief that the county had seen in the previous 1960's and 1970's enrollment cycle.

### Aging

Once students are enrolled in Kindergarten, forecasting enrollment by the "aging" of students from Kindergarten through Grade 12 is the simplest and most reliable component of the enrollment forecast. Past records of the rate of change between grades show that at most grade levels a large share of total enrollment can be accurately forecast by simply moving forward the grade cohort one grade for each year of the forecast. There are, however, points in system where this does not apply. Between Kindergarten and Grade 1 a sizeable increase (from 700 to 900) occurs. This is attributed to students entering public school for Grade 1 after attending full-day Kindergarten programs in nonpublic schools. A similar increase occurs between Grade 8 and Grade 9 (from 800 to 1,000) as students enter public high schools from nonpublic schools. After Grade 9 there is some reduction from Grades 10 to 12 as students exit the system prior to graduation.

The consistency of grade cohort movements is dependent on the economic climate. During a period of rapid job growth and housing construction migration to the system will increase and the grade cohort change from one level to the next will increase. During more stable periods, or during recession, fewer students will migrate into the system from outside of MCPS. During these periods the simple aging of the resident student population will contribute most to enrollment change. These factors will be further discussed in the section on migration.

The size of each grade level at any given time in the school system is a good predictor of trends for the next several years. During the current era of enrollment growth elementary school increases came first, followed by middle school, and then high school increases. In 1987 Grade 1 enrollment was the highest of any grade in the system. Today, in the 2002-03 school year, Grade 9 enrollment is the greatest. This shows that the so-called "demographic bulge" has moved up through the system over a 15 year period. The aging of large grade cohorts is now driving facility needs at the high school level. As children from the higher birth years of 2000 and 2001 enter the public schools, beginning in 2005, another "demographic bulge" will start its' path through the system.



### Migration

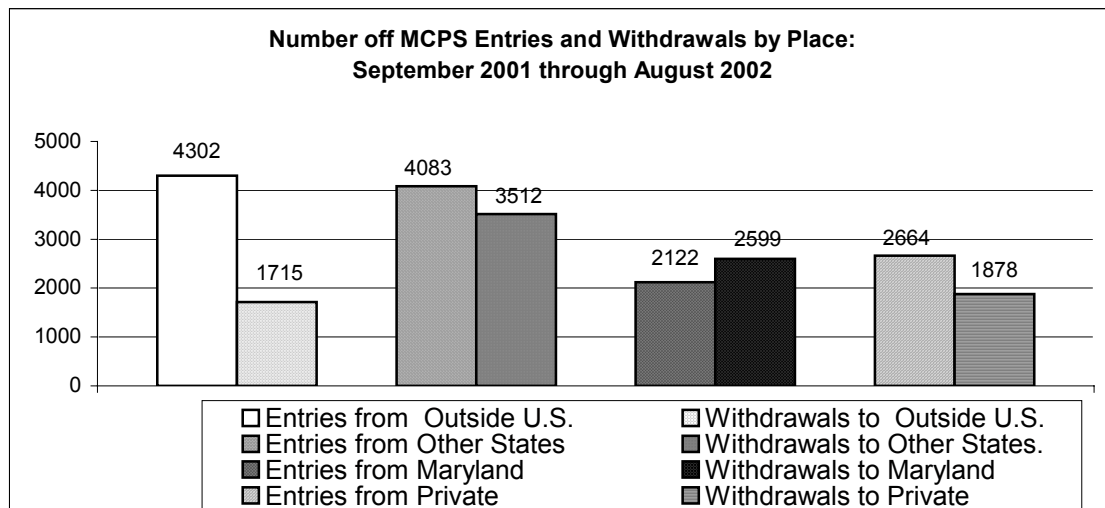
The aging of the student population accounts for a large share of enrollment change in any given year. The vast majority of the students enrolled in the school system next year will be students enrolled in the school system this year. Migration, defined as the movement of students into and out of the school system, is a smaller component of annual enrollment change, but one with long-lasting impact. Over time migration has fundamentally altered the race/ethnic and socio-economic profile of the school system.

Another important impact of migration has to do with its' role in rejuvenating MCPS enrollment. A fact about school enrollment that is obvious, but often overlooked, is the need for the supply of students to be constantly refreshed to maintain enrollment. If the service area of a school was shut down and no new families could move in and none could leave, eventually the school would empty of enrollment. This extreme example highlights the necessity of migration to sustain enrollment. The process of community turnover and student aging makes it difficult to attribute a school's enrollment level to individual factors. Enrollment change is inseparably tied to the combined affects of births, aging, and migration.

Viewed as a whole, MCPS enrollment appears to change in a fairly smooth and gradual manner. However, below the surface of total enrollment is a student population that has substantial numbers moving into and out of the system on a daily basis. From the fall of 2001 through the summer of 2002, for example, over 14,000 students entered MCPS and over 12,000 withdrew from MCPS. (These figures do not include students entering MCPS in Kindergarten, making the normal grade progression annually, or graduating from MCPS at the end of Grade 12.) This level of student mobility constantly refreshes the student population profile in ways that may not be apparent by just looking at total enrollment at any given point in time.

MCPS records of student entries and withdrawals allow trends in the origins of entering students and the destinations of departing students to be known. By far the greatest net

amount of migration into the school system is from outside the country. In the 2001-02 period 4,302 students entered MCPS from outside the country, while only 1,715 withdrew from MCPS to leave the country. Other categories of migration are more balanced, with entries closer to the number of withdrawals. This greater than two-to-one ratio of net in-migration from outside the country has been the pattern for many years. This pattern has driven the diversification of the student population, just as comparable immigration figures for Montgomery County have diversified total population. As the affects of immigration continue to accrue, further shifts in the demographic profile of MCPS can be expected.



Migration to the county and the school system is driven by job opportunities and, in turn, the ability of the housing market to meet the needs of households interested in living in the county. Consequently, the clearest indicator of migration is activity in the housing market. Following is a discussion of the relationship between enrollment change and housing.

### Housing

In 1986, when the AGP was first applied, there were an estimated 259,200 housing units in Montgomery County. By 2000, the U.S. Census reported 334,632 housing units in the county, an increase of over 75,000 housing units. (The number of households in the county in both years was somewhat lower due to about a 3 percent vacancy rate.) Between 2000 and 2020 the Montgomery County Department of Park and Planning projects an additional 80,000 housing units will be built.

The turnover of existing homes and apartments, and new home sales and apartment rentals, facilitate migration of households to the county. Because there is always a larger pool of existing homes up for resale or rental than there are new housing units, the impact on enrollment of migration to existing residences is greater than the impact of new home sales and new apartment rental. In the housing resale market increases in enrollment are due to the net enrollment increase created by more students entering a school service area than students aging out of school-age or moving. Past records show that resales of existing housing constituted about 85 percent of sales for all types of housing units (existing and new) throughout the 1990's. As this turnover process goes on enrollment

growth has occurred throughout the county, even in areas with little or no new home construction.

This is not to say that new home sales and new apartment rentals do not have a significant impact on enrollment. This type of added housing supply is most abundant in the county’s growth areas where new communities have been built. In these areas new housing has been the major source of enrollment increases and has driven the need for many more school facilities.

Activity in both housing markets is subject to a great deal of variation year to year. Job opportunities in the county and region, coupled with low mortgage interest rates and a limited supply of new housing, have driven a strong market in recent years. Projects that were originally expected to proceed over a multi-year period have been built on accelerated schedules. Housing market pressures also have strengthened the resale market and driven up housing costs.

Activity in the housing market is factored into enrollment forecasts. In the case of new housing, MCPS tracks subdivision applications and incorporates them into school enrollment forecasts once they have received preliminary plan approval. Developers and builders are contacted regularly to determine their build schedules and estimated completion dates. Information on the market demand for projects also is obtained. School enrollment forecasts are adjusted to account for new home construction scheduled in school service areas. Factors are applied to the different housing types to estimate the number of school age children, by school level, that will be generated by a development. One source of “yield” factors is the Montgomery County Department of Park and Planning Census Update Survey. Shown below are the countywide rates from the most recent Census Update Survey.

<b>COUNTYWIDE: NEW HOUSING STUDENT YIELD FACTORS</b>				
Housing Type	Factors (number of students generated per unit)			
	Elementary	Middle	High	Total K-12
Single Family	0.33	0.11	0.12	0.56
Townhouse	0.25	0.10	0.12	0.47
Multi-Family	0.15	0.08	0.06	0.29
High Rise	0.07	0.02	0.02	0.11

Housing yield factors also are available for regions of the county. Factors tend to be somewhat higher in upcounty growth areas, and lower in downcounty, more built-out areas. In addition to these factors MCPS regularly samples housing projects to fine-tune estimated student generation. In recent years this sampling has shown that two popular types of housing developments have lower student generation than the countywide rates would indicate. In the area of neo-traditional design communities, housing developments like Kentlands, Lakelands, and King Farm have lower student generation rates for single

family detached, townhouse, and multi-family units than the county average. The other area where lower student generation rates have been seen are in high density, upscale rental communities. Many of these are underway in the county, especially at locations close to METRO stations and highway access. These high amenity, high rent communities often have structured parking. Student generation rates for this type of product have been well below the countywide rates for multi-family units. While this is the current experience from this new type of product, there is some concern that student generation rates may go up as these apartment communities age.

Estimating the impact of resales of existing homes, and rentals of existing apartments, is not as straight forward as it is for new housing. 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. MCPS enrollment constitutes an annual census of the school age population, and shifting trends in school service areas can be detected by analyzing this yearly data. In addition, all school principals in the county are surveyed each year. Principals 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 that may be occurring.

One area of increasing concern in the housing market is 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.

Movement of households into existing and new housing is a complex variable in the forecasting of school enrollment. Variation in this factor is the source of most forecast error, especially for individual school forecasts. Over the course of a six-year enrollment forecast the economic conditions that drive the housing market can change substantially. Lately that change has been to a stronger than expected market and accelerated housing construction schedules. In addition, recent research has shown that the region is behind in the number of housing units available relative to the supply of jobs. This gap is expected to increase greatly over the next decade. This suggests that, barring a major economic disturbance, a strong housing market should characterize the county for many years to come.

### Assessing the Impact of Housing Change

The interrelated nature of the factors affecting enrollment change makes it difficult to disaggregate the impact of any single factor. Of interest to the Annual Growth Policy is the impact of new housing. The most dramatic impact of new housing occurs in growth areas of the county, where large communities are being built. In more established areas of the county, where a majority of the housing supply already exists, the impact of infill subdivisions is more modest. Depending on the size of an infill subdivision, turnover of existing housing is likely to have as much, if not a more of an impact, than new housing construction.

Unfortunately there is no reliable way to separate out the impact of housing construction and turnover on school enrollment. In all areas of the county enrollment at a school fluctuates on an almost daily basis as students come and go. School enrollment levels are not static. Enrollment will change in a school even if no migration into the attendance area occurs. This happens simply through the student aging process. For example, in an elementary school where Grade 5 enrollment is the largest of any grade, total school enrollment is likely to decline the following year as that grade cohort moves on to middle school and is replaced by a smaller Grade 5. In instances like this, new home construction and housing turnover may not increase total enrollment. Following are two examples from recent experience that highlight the large degree of variation in the impact of new home construction and enrollment change at schools.

The phenomenon of a large amount of housing construction and little to no change in a school's enrollment has recently been illustrated by construction at the King Farm in Rockville. The southern portion of this development is assigned to College Gardens Elementary School. Over the past several years a mix of approximately 1,300 housing units have been occupied in this area. Records show about 100 elementary students reside in this portion of King Farm. However, enrollment at College Gardens Elementary School has remained at the same level as before development began. This illustrates how new development can sometimes maintain a school's enrollment level, if enrollment from other portions of a school attendance area is declining.

On the other end of the spectrum, from the experience at College Gardens Elementary School, is the example of Matsunaga Elementary School in Germantown. This is a school dominated by recently completed homes and faster than expected build-out of large subdivisions. In this case there is no older community where the student population is declining, as was the case in College Gardens Elementary School. During the planning stages for Matsunaga Elementary School developers and builders had estimated a ten year building period for homes surrounding the school. Almost as soon as construction got underway the housing market became much stronger than expected. Consequently, forecasts for Matsunaga Elementary School were too low, and the school has exceeded forecasts since it opened for the 2001-02 school year. Last year it was determined that another elementary school will be needed in Germantown to address space deficits at Matsunaga and Germantown elementary schools.

The dual impacts of new housing construction and housing turnover are reflected in facility requests in the current MCPS FY 2004 Capital Budget and Amendments to the FY 2003 to FY 2008 Capital Improvements Program (CIP.) Requests for new facilities in upcounty areas of new housing construction are mirrored almost one to one by requests for comparable school facilities in downcounty areas. For example, the CIP includes a new high school in Clarksburg and the reopening of Northwood High School. The CIP includes a new middle school for the Quince Orchard Cluster, and the reopening of Belt Middle School in the Wheaton Cluster. The CIP includes one new elementary school each in Clarksburg and Germantown, and the reopening of two elementary schools in the downcounty (Arcola in the Kennedy Cluster, and Connecticut Park in the Wheaton

Cluster.) In addition, the new CIP includes the construction on an elementary school on the former Brookview Elementary School site in the Northeast Consortium.

### Summary

This description of factors that affect MCPS enrollment change shows them to be highly interrelated. Long and fairly predictable arcs of enrollment growth are foreseen, given birth trends and the process of aging in the student population. The impact of migration on future enrollment is more difficult to project since this factor is tied to more changeable economic conditions and housing availability.

MCPS enrollment forecasts, by taking account of the factors described in this paper, have a high degree of accuracy. The total county level forecast is typically within one percent of actual enrollment. This year total enrollment is just 159 over forecast. Examination of six year forecast accuracy shows that in most forecast years enrollment is within one to two percent of what was forecast six years prior. More challenging are forecasts for individual school service areas. A forecasting maxim holds that accuracy is greatest the larger the area being projected. At the small level of individual schools, more pronounced variations in enrollment trends result in a larger margin of forecast error. Forecasting schools within five percent of actual enrollment on an annual basis is the desired goal at this geographic level. In most years 75 to 85 percent of schools have fallen within this desired range.

In conclusion, more than any factor the dramatic upturn in births seen in 2000 and 2001 substantially shifted the thinking of MCPS planners in terms of long term enrollment and facility needs. Before this upturn there was some hope that there would be a peaking in enrollment, followed by a period of gradual decline. In this scenario, relief from facility deficits would occur naturally as enrollment passed its' peak for schools. National as well as local demographic forecasts have altered this view.

At the same time as the outlook for sustained enrollment growth has become more clear, the school system remains behind in providing adequate capacity at its' schools. This year 635 relocatable classrooms are in use at 117 of the school system's 191 schools (61 percent of schools.) This is the case despite the substantial investments the county makes each year to address school facility needs. This situation has not only made it difficult to provide needed school capacity, but also has jeopardized the modernization program for older schools. With births now projected to continue going up indefinitely, and with an additional 80,000 housing units forecast by 2020, the school system must brace for ever greater facility needs. These conditions make deliberations on the county's Annual Growth Policy timely.

M-NCPPC



**MONTGOMERY COUNTY DEPARTMENT OF PARK AND PLANNING**

THE MARYLAND-NATIONAL CAPITAL  
PARK AND PLANNING COMMISSION

8787 Georgia Avenue  
Silver Spring, Maryland 20910-3760  
301-495-4500, [www.mncppc.org](http://www.mncppc.org)

July 6, 2006

George Leventhal  
President  
Montgomery County Council  
100 Maryland Avenue  
Rockville, MD 20850

Dear Mr.  Leventhal:

Montgomery County's Growth Policy, last adopted in October 2003, contains guidelines for the administration of a test for school adequacy. Since the adoption of the most recent growth policy, the Montgomery County Planning Board annually applies the school test methodology approved by the County Council.

On June 22, 2006, the Montgomery County Planning Board reviewed the results of the growth policy "school test" using the approved methodology and the school facilities fully-funded for completion in the first five years of the newly adopted CIP. These findings were prepared by the staff of Montgomery County Public Schools and reviewed and accepted by Park and Planning staff. The results of this analysis are attached and have been accepted by the Planning Board.

Therefore, the Montgomery County Planning Board finds that, for the purposes of reviewing subdivisions in FY 2007, capacity in each cluster and at every level meets the growth policy's definition of "adequate."

If you or any Councilmember have questions about the Planning Board's implementation of the growth policy school test, please feel free to contact Karl Moritz in the Research & Technology Center at 301-495-1312.

Sincerely,

A handwritten signature in black ink, appearing to read "Derick P. Berlage".

Derick P. Berlage  
Chairman

DPB:KWM



# Growth Policy: Elementary and Middle School Test for FY 2007

Reflects County Council Adopted FY 2007-2012 Capital Improvements Program (CIP) and MCPS Enrollment Forecast

## Elementary School Enrollment and MCPS Capacity

Cluster Area	Projected Sept. 2011 Enrollment	100% MCPS* Capacity With Council Adopted FY07-12 CIP	Capacity Remaining @ 100% MCPS capacity
B- CC	3,036	2,752	-284
Blair	3,785	3,510	-275
Blake	2,299	1,941	-358
Churchill	2,486	2,646	160
Clarksburg	3,316	2,965	-351
Damascus	1,955	2,101	146
Einstein	2,380	2,010	-370
Gaithersburg	3,700	3,968	268
Walter Johnson	3,073	2,946	-127
Kennedy	2,291	1,775	-516
Magruder	2,599	2,509	-90
R. Montgomery	2,299	1,975	-324
Northwest	3,767	3,514	-253
Northwood	2,498	2,375	-123
Paint Branch	2,246	1,965	-281
Poolesville	635	754	119
Quince Orchard	2,828	2,596	-232
Rockville	2,467	2,199	-268
Seneca Valley	2,291	2,185	-106
Sherwood	2,346	2,484	138
Springbrook	2,796	2,861	65
Watkins Mill	2,488	2,509	21
Wheaton	2,422	2,213	-209
Whitman	2,034	2,052	18
Wootton	2,993	3,052	59

## Growth Policy Test with Growth Policy (GP) Capacity

105% GP** Capacity With Council Adopted FY07-12 CIP	Growth Policy Test: Students Above or Below 105 % GP Cap.	Growth Policy Test Result - Capacity is:
3,258	222	Adequate
4,638	853	Adequate
2,539	240	Adequate
3,123	637	Adequate
3,677	361	Adequate
2,886	931	Adequate
2,838	458	Adequate
4,998	1,298	Adequate
3,507	434	Adequate
2,477	186	Adequate
3,416	817	Adequate
2,562	263	Adequate
4,249	482	Adequate
3,068	570	Adequate
2,778	532	Adequate
851	216	Adequate
3,159	331	Adequate
3,169	702	Adequate
2,752	461	Adequate
2,936	590	Adequate
3,757	961	Adequate
3,334	846	Adequate
2,956	534	Adequate
2,365	331	Adequate
3,425	432	Adequate

## Middle School Enrollment and MCPS Capacity

Cluster Area	Projected Sept. 2011 Enrollment	100% MCPS* Capacity With Council Adopted FY07-12 CIP	Capacity Remaining @ 100% MCPS capacity
B- CC	1,018	1,098	80
Blair	1,976	2,402	426
Blake	1,163	1,425	262
Churchill	1,298	1,415	117
Clarksburg	1,422	1,264	-158
Damascus	987	992	5
Einstein	976	1,510	534
Gaithersburg	1,517	1,866	349
Walter Johnson	1,566	1,866	300
Kennedy	1,191	1,371	180
Magruder	1,197	1,719	522
R. Montgomery	926	1,044	118
Northwest	1,840	2,082	242
Northwood	1,128	1,398	270
Paint Branch	1,165	1,385	220
Poolesville	312	500	188
Quince Orchard	1,232	1,730	498
Rockville	958	1,030	72
Seneca Valley	1,256	1,483	227
Sherwood	1,284	1,561	277
Springbrook	1,109	1,227	118
Watkins Mill	1,100	1,216	116
Wheaton	1,531	1,837	306
Whitman	1,222	1,341	119
Wootton	1,450	1,576	126

## Growth Policy Test with Growth Policy (GP) Capacity

105% GP** Capacity With Council Adopted FY07-12 CIP	Growth Policy Test: Students Above or Below 105 % GP Cap.	Growth Policy Test Result - Capacity is:
1,181	163	Adequate
2,622	646	Adequate
1,536	373	Adequate
1,630	332	Adequate
1,465	43	Adequate
1,134	147	Adequate
1,796	820	Adequate
2,292	775	Adequate
2,244	678	Adequate
1,607	416	Adequate
1,890	693	Adequate
1,229	303	Adequate
2,339	499	Adequate
1,725	597	Adequate
1,536	371	Adequate
543	231	Adequate
1,914	682	Adequate
1,205	247	Adequate
1,701	445	Adequate
1,701	417	Adequate
1,488	379	Adequate
1,370	270	Adequate
2,032	501	Adequate
1,465	243	Adequate
1,748	298	Adequate

In cases where elementary or middle schools articulate to more than one high school, enrollments and capacities are allocated proportionately to clusters.

## Growth Policy - High School Test for FY 2007

Reflects County Council Adopted FY 2007-2012 Capital Improvements Program (CIP) and MCPS Enrollment Forecast

### High School Enrollment and MCPS Capacity

Cluster Area	Projected Sept. 2011 Enrollment	100% MCPS* Capacity With Council Adopted FY07-12 CIP	Capacity Remaining @ 100% MCPS capacity
B- CC	1,649	1,665	16
Blair	2,662	2,830	168
Blake	1,808	1,716	-92
Churchill	1,909	2,008	99
Clarksburg	1,354	1,600	246
Damascus	1,480	1,643	163
Einstein	1,607	1,592	-15
Gaithersburg	2,152	2,126	-26
Walter Johnson	2,095	2,131	36
Kennedy	1,441	1,727	286
Magruder	1,900	2,020	120
R. Montgomery	1,863	1,966	103
Northwest	2,279	2,228	-51
Northwood	1,382	1,621	239
Paint Branch	1,710	1,998	288
Poolesville	708	868	160
Quince Orchard	1,840	1,796	-44
Rockville	1,159	1,607	448
Seneca Valley	1,431	1,527	96
Sherwood	2,099	2,063	-36
Springbrook	2,053	2,148	95
Watkins Mill	1,631	1,876	245
Wheaton	1,411	1,490	79
Whitman	1,907	1,922	15
Wootton	2,291	2,023	-268

### Growth Policy Test with Growth Policy (GP) Capacity

100% GP** Capacity With Council Adopted FY07-12 CIP	Growth Policy Test: Students Above or Below 100 % GP Cap.	Growth Policy Test Result - Capacity is:	Growth Policy Test Result - Capacity is:
1,710	61		Adequate
2,993	331		Adequate
1,778	-30	Paint Branch 383	Adequate
2,115	206		Adequate
1,643	289		Adequate
1,688	208		Adequate
1,800	193		Adequate
2,340	188		Adequate
2,363	268		Adequate
1,935	494		Adequate
2,115	215		Adequate
2,093	230		Adequate
2,295	16		Adequate
1,710	328		Adequate
2,093	383		Adequate
900	192		Adequate
1,980	140		Adequate
1,778	619		Adequate
1,665	234		Adequate
2,183	84		Adequate
2,273	220		Adequate
2,025	394		Adequate
1,643	232		Adequate
2,025	118	R. Montgomery 230	Adequate
2,183	-108		Adequate

The Growth Policy schools test compares projected enrollment in 2011-12 to total capacity in 2011-12, including programmed additional capacity available by that year.

The Growth Policy schools test uses 105% Growth Policy (GP) Capacity for elementary and middle schools, and 100% GP Capacity for high schools.

The Growth Policy schools test is within cluster for elementary and middle schools, and at high school level capacity may be "borrowed" from adjacent clusters,

\* MCPS program capacity based on a variety of classroom capacities determined by programs in the school, including variations for class-size reduction schools, and Pre-K/ Head Start, ESOL, and Special education programs (as published in November in the CIP and in June in the Master Plan.)

\*\* Growth Policy elementary cluster capacity for schools based on rating all K rooms at 22, and all other elementary rooms for Grades 1- 5 at 25:1.

\*\*Growth Policy secondary school capacity for Grades 6-12 based on rating all rooms at 22.5:1.

Enrollment projections by Montgomery County Public Schools, October 2005.



THE MARYLAND-NATIONAL CAPITAL PARK & PLANNING COMMISSION

February 14, 2003

## Memorandum

**To:** Montgomery County Planning Board  
**From:** Transportation Planning Staff  
**Re:** Impact of the AGP on Montgomery County Traffic Congestion

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The Annual Growth Policy (AGP) was developed to work in partnership with the Capital Improvement Program (CIP). Both the AGP and CIP are tools for implementation of the land use and facilities recommended in master plans. Specifically, the AGP was developed with two primary purposes:

- To constrain subdivision approvals to those that can be accommodated by the transportation network consisting of existing plus programmed facilities, and
- To identify the transportation system deficiencies that must be addressed by adding new transportation facilities to the CIP.

We have balanced three competing factors in seeking and achieving this policy of “transportation concurrency.” The three factors are:

- Level of service
- Transportation system capacity, and
- Development.

Transportation tests are traditionally the most critical element of the AGP, so an assessment of the impact of the AGP on transportation level-of-service (LOS) is necessary to understand the effectiveness of the AGP. This task is undertaken with the knowledge that the AGP does not control all aspects of travel demand and supply. The AGP does not control growth outside of the county, and it does not control demographic changes within the community, such as household size, that can increase travel demand even when no new development occurs.

A number of questions are being asked about the effectiveness of the AGP:

- Is transportation capacity being delivered in a timely manner, i.e. keeping pace with development?
- Is traffic congestion getting worse?

- Has Montgomery County traffic congestion increased more or less than neighboring jurisdictions?
- How has the AGP affected travel patterns & roadway conditions?

This report is one of a series of studies conducted to determine the effectiveness of the adequate public facilities ordinance as part of the FY04 Policy Element. It should be noted that the analysis is primarily limited to roadway level-of-service, although there is a review of transit mode shares. To address the questions posed above, there are five sections: summary of findings, data sources, historical growth trends, regional comparison of mobility and a comparison of Montgomery and Fairfax counties.

## **I. Summary of Findings**

The following is a summary of major findings from the study:

- 1) The pace of development in Montgomery County has been greater than the provision of roadway lane miles over the time period when the AGP has been in place (As shown below, the term daily vehicle miles of travel (VMT) refers to the sum of all the auto travel that takes place on the roadway network during a typical weekday):
  - From 1985 to 2000, Montgomery County's jobs have increased by 43%, population has increased by 39%, and daily VMT has increased by 45%.
  - During the same time period from 1985 to 2000, lane miles of collector, minor arterial, principal arterial, and freeway have increased by only 23% in Montgomery County. Lane miles per 1,000 persons have decreased from 3.1 to 2.7 and lane miles per 1,000 jobs have decreased from 5.1 to 4.4.
- 1) Travel data for the urbanized portion of the Washington region indicates that Montgomery County freeways are as congested as the rest of the region, but principal arterials are doing better than the rest of the region:
  - VMT per lane mile of freeway in Montgomery County have remained consistent with VMT per lane mile in the D.C. region and in Fairfax County, at 18,400 daily VMT.
  - VMT per lane mile of principal arterial in Montgomery County (7,300) are lower than in the D.C. region (8,300) and Fairfax County (9,900).
  - Texas Transportation Institute (TTI)'s Congestion Index (average volume-to-capacity ratio based on LOS-C capacity) in Montgomery County (1.32) is lower than the Congestion Index in the D.C. Region (1.35) and Fairfax County (1.41).
  - Annual Delay per Capita (derived from the TTI Congestion Index) in Montgomery County (43) is lower than the Annual Delay per Capita in the D.C. region (45) and Fairfax County (52).

- 2) A review of development patterns in Montgomery County and Fairfax County found that growth patterns are closer to Metrorail and transit use is more widespread in Montgomery County:
- Transit mode share is 43% higher in Montgomery County than Fairfax County (13.4% versus 7.6% of work trips).
  - Montgomery County continues to approve development closer to Metro than Fairfax County.
  - Fairfax County has had double the development (land conversion) of Montgomery County from 1973 to 1996.

These findings lead us to the following conclusions:

- Montgomery County's AGP process has limited the impact of development during a period when jobs and population (and the resulting VMT) have increased at twice the rate as lane miles of new roads.
- Our emphasis on traffic mitigation and development near Metrorail has resulted in mode share (13.4%) almost double that of Fairfax County.
- VMT per lane mile on freeways has increased over the past decade, and these facilities are highly impacted by development occurring outside of Montgomery County.
- VMT per lane mile on principal arterials have decreased, and these facilities are highly affected by development occurring within Montgomery County. However, minor arterials and collectors show an increase in VMT per lane mile (see Table 1).
- Montgomery County is doing better than the D.C. region and Fairfax County on a number of congestion measures that are derived from VMT per lane mile on principal arterials and freeways, but all parts of the region are experiencing greater congestion than in 1985.

This analysis has shown the historical trend for a number of critical performance measures for transportation use in Montgomery County. But the meaning and causal factors are open to debate and have raised more questions:

1. *Does the lower VMT per lane on principal arterials really mean that Montgomery County has less congestion than the rest of the region?*

The method used in this study makes a number of assumptions about roadway capacity that ultimately depend on the number of lane miles. A major factor that shapes perceptions of traffic congestion is delay at intersections. This analysis did not look at intersection delay because the data were not available. It is possible that intersection delay has increased faster than VMT per lane mile, leading to a perception that congestion has gotten worse.

2. *Should the AGP be held responsible for roadway traffic conditions?*

The AGP is responsible for the timing of development, not the end-state conditions when the county is built out. Rather it is the General Plan and master plans that set the direction of the county, establish goals and the criteria used to evaluate attainment of county goals. Analysis of Master Plan conditions show that there will be an increase in congestion levels from existing conditions.

The AGP should not be held responsible for any real/perceived failures to build roads and other transportation facilities, which is the responsibility of the CIP. However, if the AGP is not helping to inform where transportation improvements are needed, then the process is not working properly.

3. *What was the impact of widening I-270 in the late 1980's?* Many of the charts in this report show a change in congestion trends occurring after 1990. It appears that congestion levels improved in the early 1990's, and that there was a shift in traffic from principal arterials to freeways. The widening of I-270 would definitely have had an impact on roadways in the corridor. Outside of the I-270 corridor, the recession in the early 1990's may have played a larger role.
4. *What about differences in congestion levels at the policy area level?*

Montgomery County places a very high priority on economic development, fiscal stability and delivery of public services. These broad goals must be linked to the goals of our transportation and land use policies. In Montgomery County, we have, as a matter of public policy, decided to accept higher levels of traffic congestion in our urban areas in exchange for denser development. As our urban areas grow, they get denser, and density translates into traffic congestion. We have provided a higher level of transit service in these areas and have not sought to increase roadway system or "network" capacity. We have chosen to encourage "smart" development in our urban areas and not increase system capacity. The result has been a more congested level of service in these areas which, by policy, we have also accepted. The AGP has been the engine that has steered, guided and controlled this high priority public policy.

5. *How much development capacity has been added in the past fifteen years given the programmed transportation facilities?*

Appendix A presents the development capacity that was added in each year of the AGP and the associated transportation improvements. Appendix B charts the total of gross staging ceilings for the county over time.

## **II. Data Sources and Methodology**

The approach selected to compare Montgomery County with the Washington region was to use the Texas Transportation Institute's (TTI) Mobility Study methodology. TTI conducts a national study of mobility and traffic congestion on freeways and major streets for urbanized portion of 75 regions. This study is the source of the often-quoted "2<sup>nd</sup> worst traffic congestion in the nation" ranking of the Washington region. The TTI method estimates a number of mobility measures based on VMT per lane mile on freeways and arterials.

TTI ranks metropolitan areas nationally by congestion, delay, cost of time lost stuck in traffic, etc. In order to do that comparison, TTI developed a methodology that uses data that are easily available for all metro areas. The primary inputs include:

- Population Totals
- Highway Performance Monitoring System (HPMS) database of roadways (specifically Freeways and Principal Arterials)
  - Lane Miles
  - Vehicle-Miles Traveled

The TTI methodology is applied to only the urbanized portion of each region. The urbanized portion of Montgomery County is fairly consistent with the policy areas in which the AGP transportation test is applied, i.e. the non-rural section of the county.

Fairfax County was specifically identified for comparison purposes with Montgomery County to see the real-world effects of our growth management policies. Fairfax is of a comparable size to Montgomery County, and was actually slightly less populated in 1985. Fairfax is in the same region and experiences the same economic pressures and influences as Montgomery. Most importantly, the regulatory contexts are significantly different, with Fairfax having very loose controls on the location and pace of development, and Montgomery having much tighter controls.

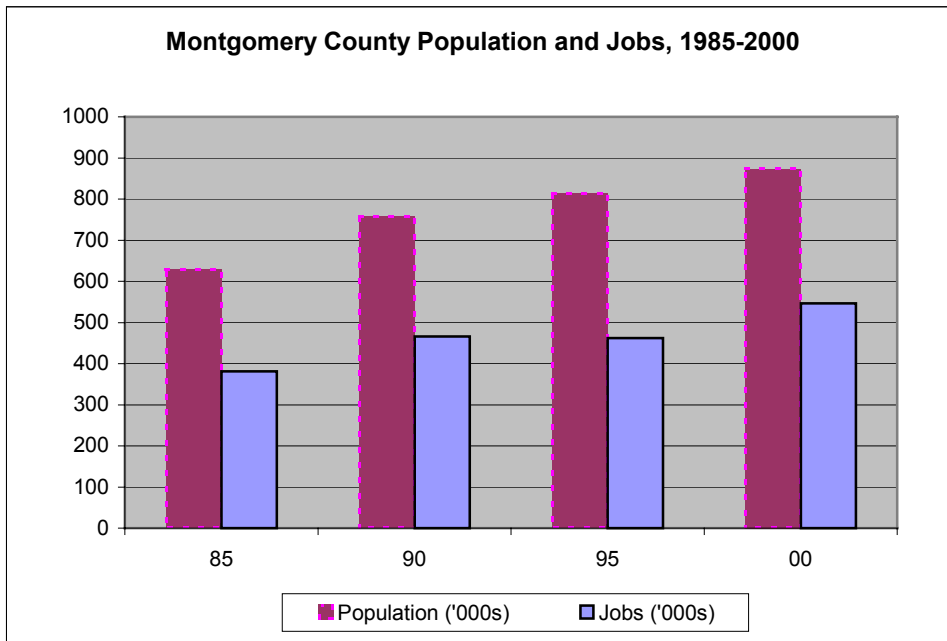
All roadway data in this report is presented for the years 1985 through 2000. This fifteen-year time period coincides with the time period since the AGP was adopted in its current form. Only Year 2000 data is available for Fairfax County for lane miles and VMT.

The comparison of Montgomery and Fairfax counties also includes data from the 1990 and 2000 Census. Note that transit mode shares were adjusted to remove the effect of workers that stayed at home to work.

### **III. Historical Growth Trends Compared with Transportation Improvements**

One measure of how well the AGP/CIP partnership is working is to review the pace of delivery of transportation infrastructure and compare it to the pace of development. The AGP was created to achieve balance between transportation supply, i.e. the lane miles of roadways, and transportation demand, generated by approved development. The policy response to an area being out of balance is to either slow growth through the use of building moratoriums or increase transportation capacity by programming roadway improvements in the Capital Improvement Program.

Figure 1 shows that Montgomery County experienced significant growth in both jobs and households over the period from 1985 to 2000. Total population grew from 628,000 to 873,000, a 39% increase. Total jobs grew from 381,000 to 546,000, a 43% increase. Growth was significantly higher in the late 1980's compared with the 1990's. Between 1985 and 1990, the county experienced a 20% increase in both jobs and households. Between 1990 and 1995, population increased by 7.5%, but the number of jobs declined. Between 1995 and 2000, population growth continued at the same pace, but the job market significantly rebounded, increasing by 18%.



**Figure 1**

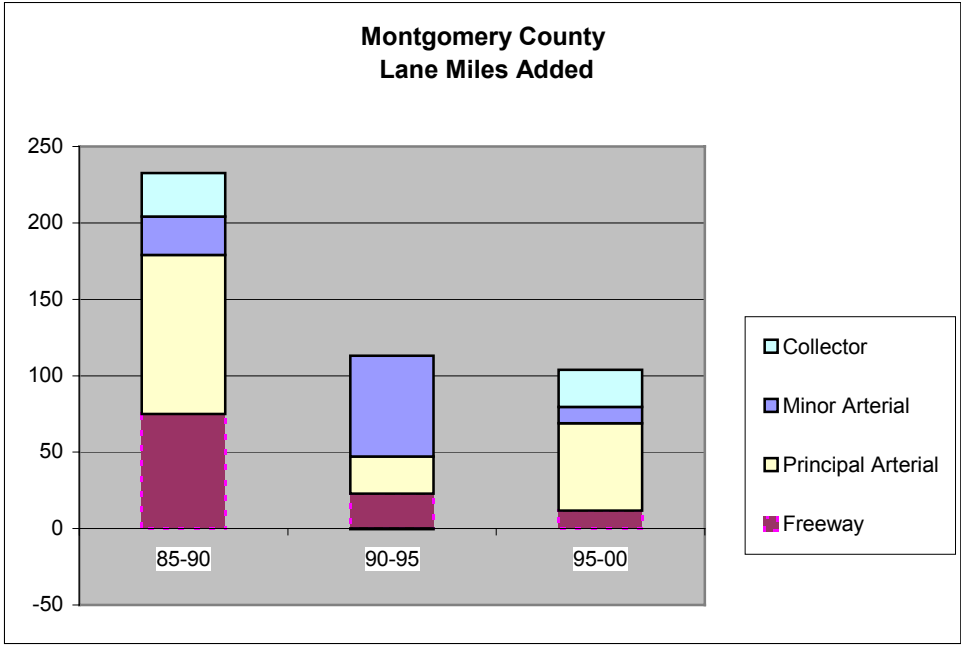


Data from the Highway Performance Monitoring System database have been summarized to show the amount of roadway mileage constructed over the period from 1985 to 2000, i.e since the AGP was initiated in 1986. It should be noted that the AGP looks ahead five years into the future when analyzing the impacts of future development. Only highway projects funded for construction in the five-year Capital Improvement Program are considered during the process of setting development staging ceilings. As a result of the five-year horizon of the AGP, results shown for one five year period are really the result of policy decisions made in the previous five-year period.

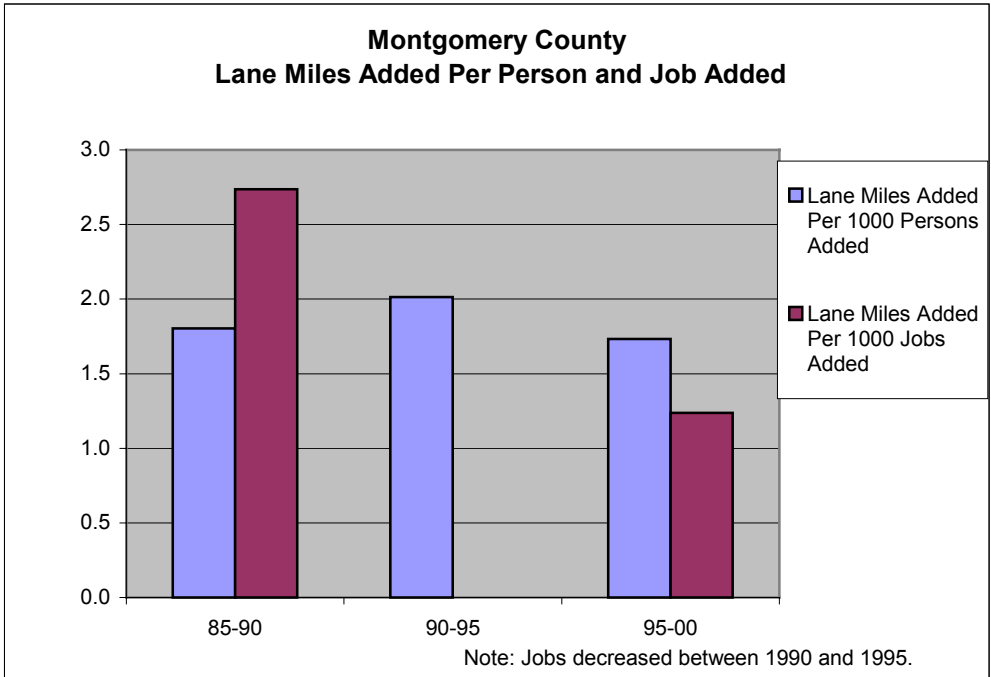
Figure 2 presents the number of lane miles added for three five-year periods: 1985-1990, 1990-1995, and 1995-2000. Lane miles are summarized by type of roadway based on HPMS functional classifications: freeway, principal arterial, minor arterial, and collector. Local streets have not been included in this summary because they are primarily for access purposes and are not considered in the Policy Area Transportation Review. Although local streets account for the majority of roadway miles built each year, the vehicle capacity of these streets is low compared with arterials and freeways.

More lane miles of roadway were added during the late 1980's than during all of the 1990's. From 1985 to 1990, 233 lane miles were added to the county road system, a 12% increase over the 1985 network total of 1,940 lane miles. The biggest roadway categories were principal arterial, such as the completion of Great Seneca Highway and road widenings in Germantown, and freeways, especially the widening of and construction of collector-distributor lanes on I-270. From 1990 to 1995, 113 lane miles were added (5% increase). From 1995 to 2000, 104 lane miles were added (4.5% increase).

Figure 3 shows the lane miles added per person and job added. Lane miles added between 1990 to 1995, compared with population added in the same period, were slightly higher than other periods because of slower growth. Total jobs added were about the same in the 1985-1990 period as the 1995-2000 period, but more lane miles were added from 1985 to 1990. This suggests that the county's roadway system was not expanded during the late 1990's to address rapid job growth at the same rate as in the late 1980's.



**Figure 2**



**Figure 3**

Figure 4 shows that the total county lane miles compared with total county population and jobs are on a downward trend. Many of the major roads planned in the county have already been built, so as the county's population grows, the same road system must serve more and more people. Specifically, total network lane miles did not increase at the same rate as population growth, so there has been a decline in the number of lane miles per capita from 3.1 in 1985 to 2.7 in 2000. The decline in the number of jobs from 1990 to 1995 caused the average lane miles per job to increase during that period, but the overall trend is also downward from 5.1 in 1985 to 4.4 in 2000.

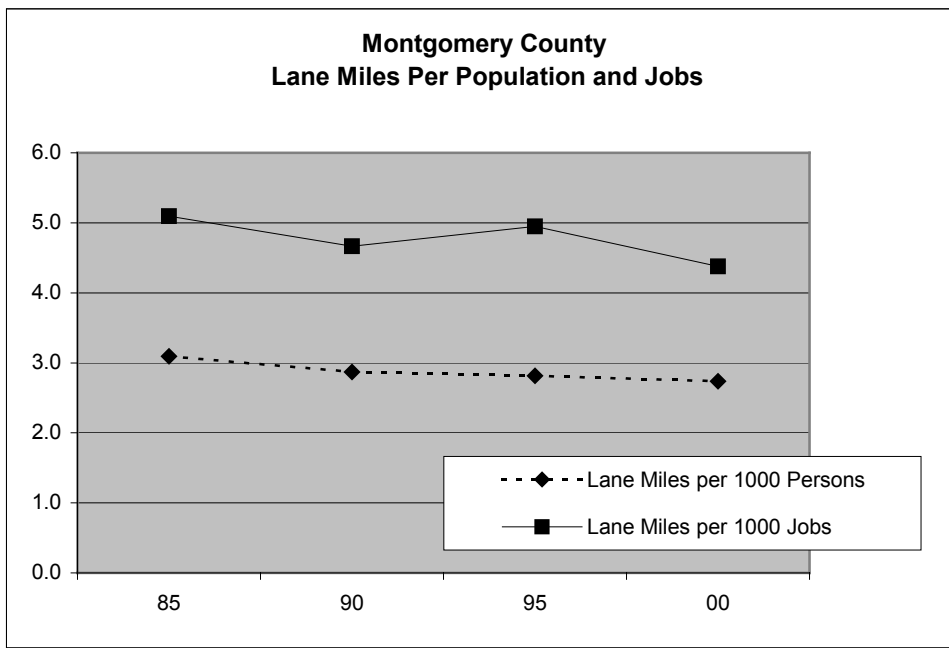


Figure 4

Vehicle Miles Traveled (VMT) is a standard measure used to describe the demand for roadway vehicular capacity. VMT for Montgomery County includes traffic that is made by residents and workers as they travel on county roadways, as well as external trips that pass through the county to travel between neighboring jurisdictions. Land use controls within Montgomery County affect county VMT only to the extent that they can reduce the amount of locally-generated traffic. Other factors that can affect VMT include the share of trips taking transit, the distance required to activities such as work and shopping, the number of passengers in each car, and the number of trips made by each household.

Figure 5 shows that daily VMT increased by 45% between 1985 and 2000. Over the same period there was a 43% increase in jobs and a 39% increase in population. The biggest increase in VMT occurred between 1985 and 1990, from 11.8 million to 14.1 million VMT daily (19% increase). VMT increased 15% between 1990 and 1995, a greater increase than land use, and 6% between 1995 and 2000, a smaller increase than land use growth over the same period.

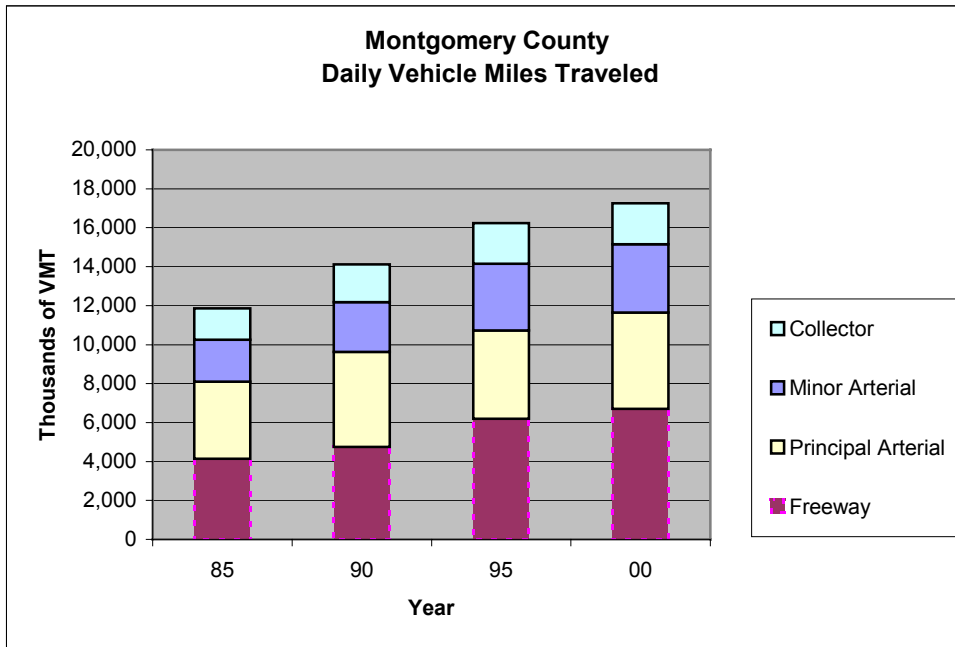


Figure 5

Figure 6 displays the average volume-to-capacity (V/C) ratio for county roadways between 1985 and 2000. The average daily V/C ratio is calculated using daily VMT from the HPMS dataset and assumed daily capacities. The countywide AGP standards are shown for reference. Freeway V/C declined in 1990 with the widening of I-270, but the overall trend has been an increase from 0.73 in 1985 to 0.86 in 2000. Non-freeway (highways and arterials) V/C increased in the late 80's, but has decreased in the '90s from 0.65 in 1990 to 0.56 in 2000.

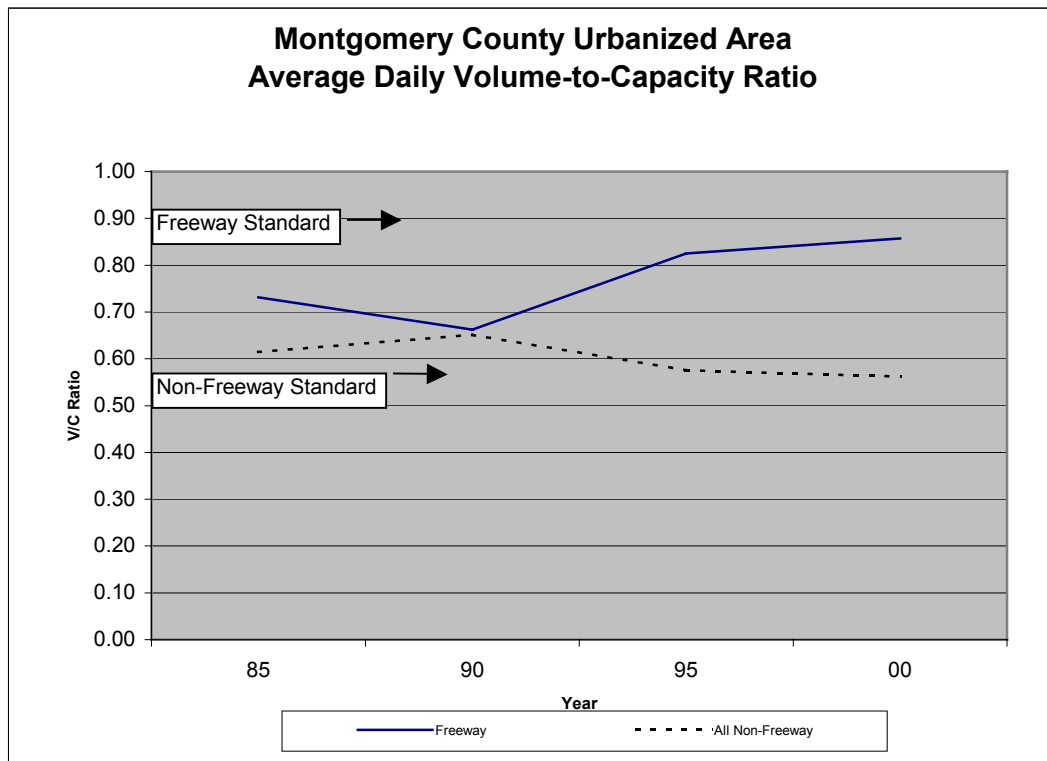
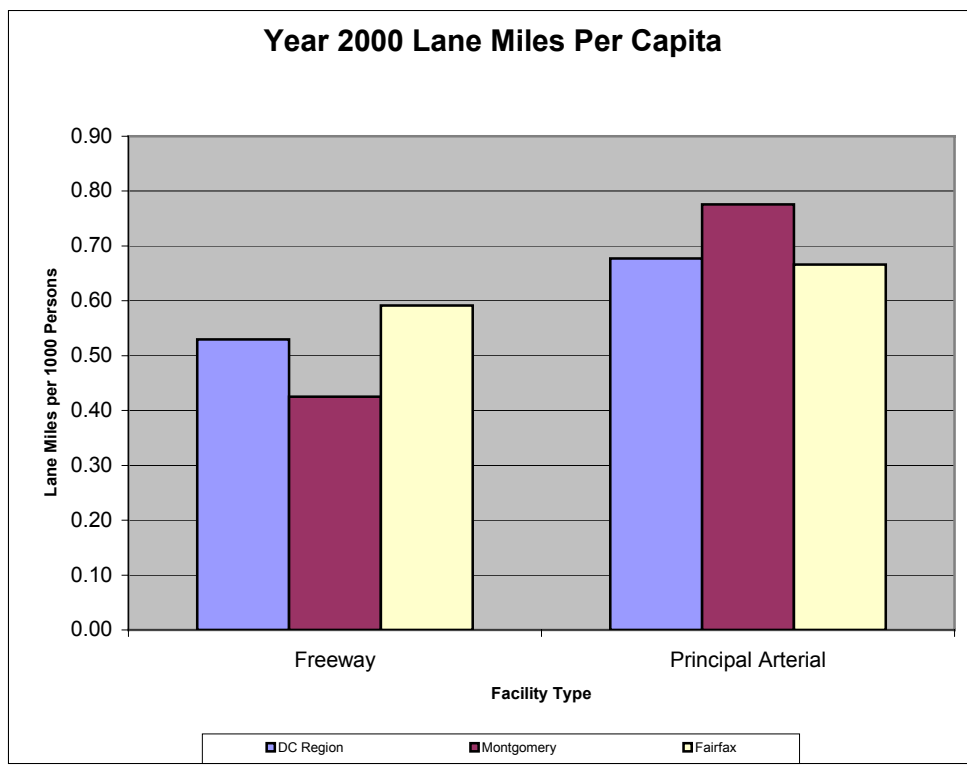


Figure 6

#### **IV. Comparison of Regional Mobility**

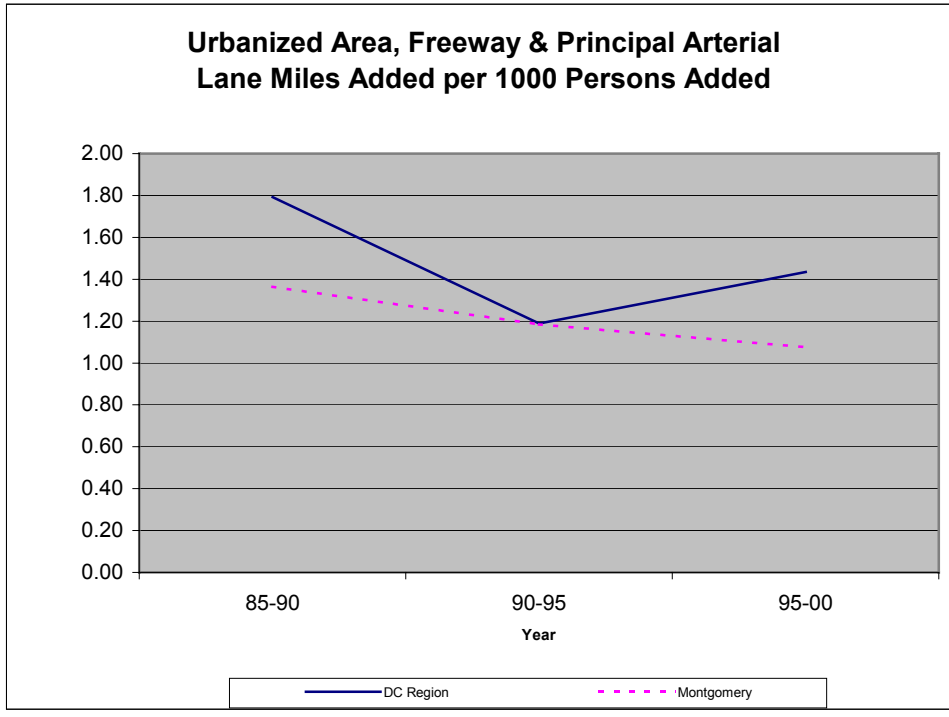
How does Montgomery County compare with the rest of the region? Many of the economic factors are the same for the entire Washington region, so differences in VMT and congestion for individual jurisdictions should be partly the result of local policies.

Figure 7 displays the lane miles per capita for the two classes of roadways used in the TTI study: freeways and principal arterials. Montgomery County has less Freeway lane miles per capita than Fairfax or the Washington region as a whole, but more Principal Arterial lane miles.



**Figure 7**

Figure 8 charts the lane miles added per person added between 1985 and 2000 in the urbanized portion of Montgomery County and the rest of the region. Over the past 15 years, Montgomery County has added less new freeway and principal arterial lane miles per new resident than the rest of the region.



**Figure 8**

Figures 9 and 10 compare the VMT per lane mile for Montgomery County with the rest of the region. Note that Fairfax data is only available for year 2000.

In 1985, the freeway system in Montgomery County was carrying more VMT per lane mile than the rest of the region. A sharp drop is seen in 1990 with the widening of I-270. In 1995 and 2000, VMT per lane mile has increased so that it now matches the regional average of 18,400 daily VMT per lane mile.

In 1985, the principal arterials in Montgomery County were carrying more VMT per lane mile than the rest of the region. Between 1990 and 1995, VMT per lane mile decreased due to road widenings and traffic being diverted to the freeway system. In 2000, VMT per lane mile of 7,300 in Montgomery County is lower than the regional average, and much lower than Fairfax County's average of 9,900.

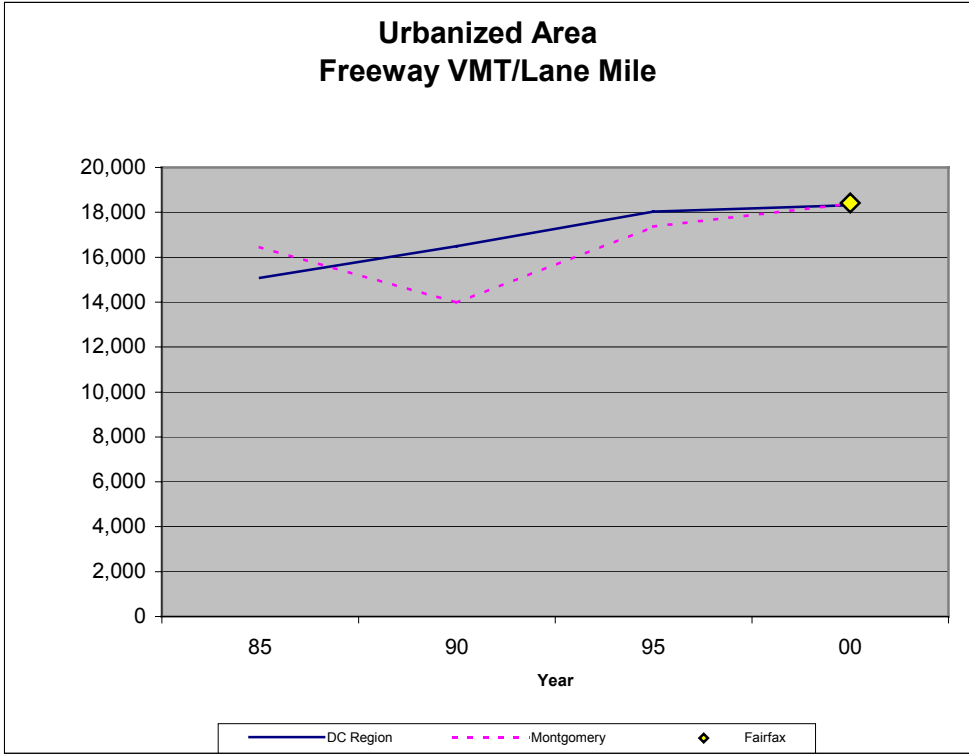


Figure 9

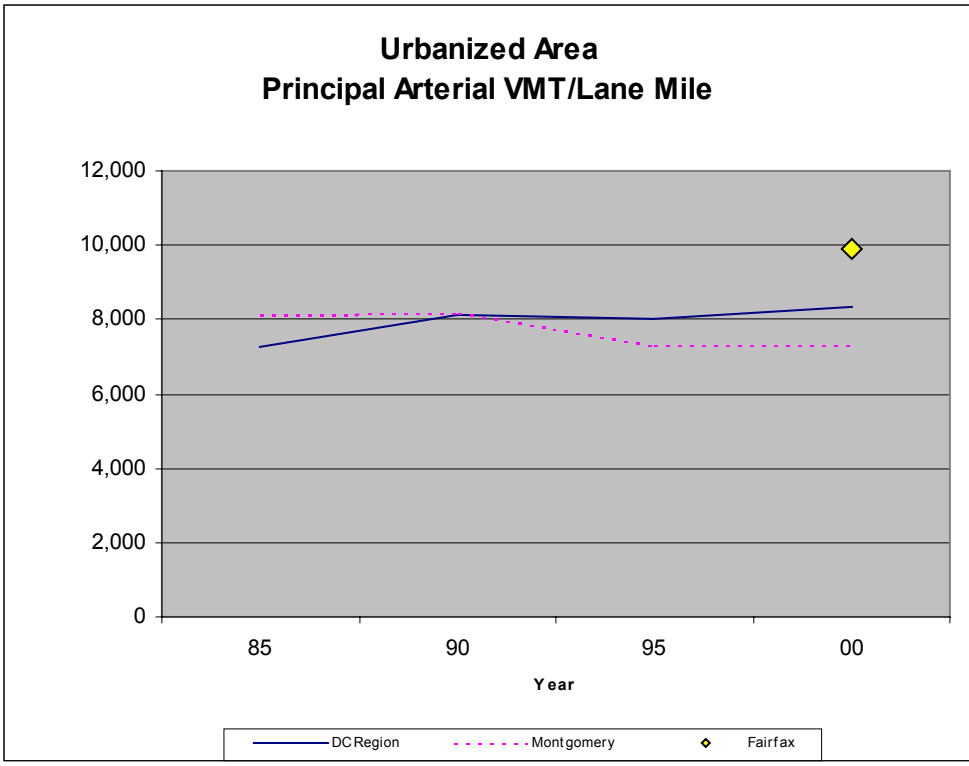
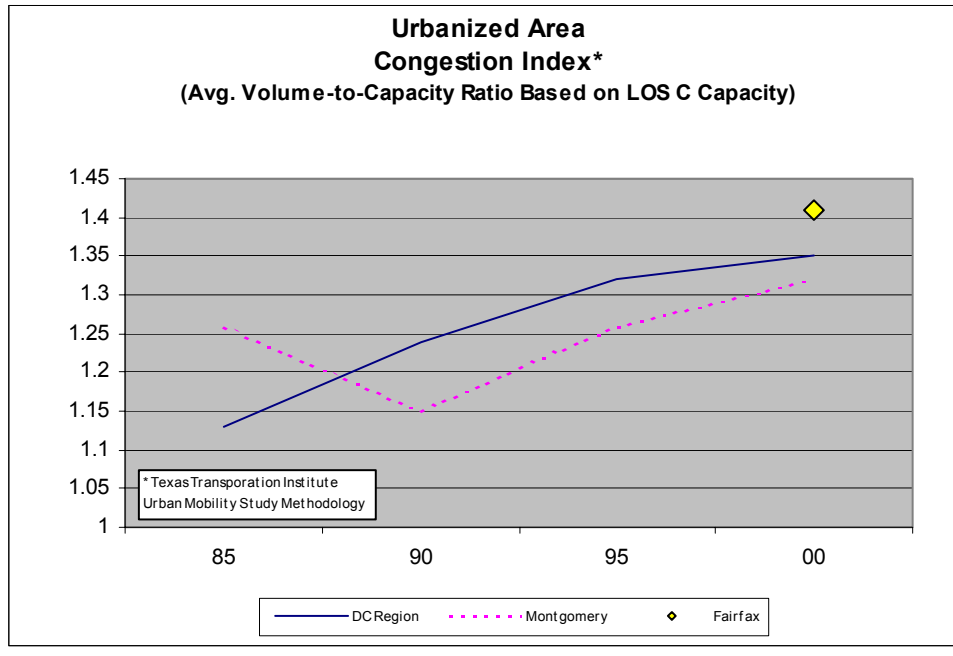


Figure 10

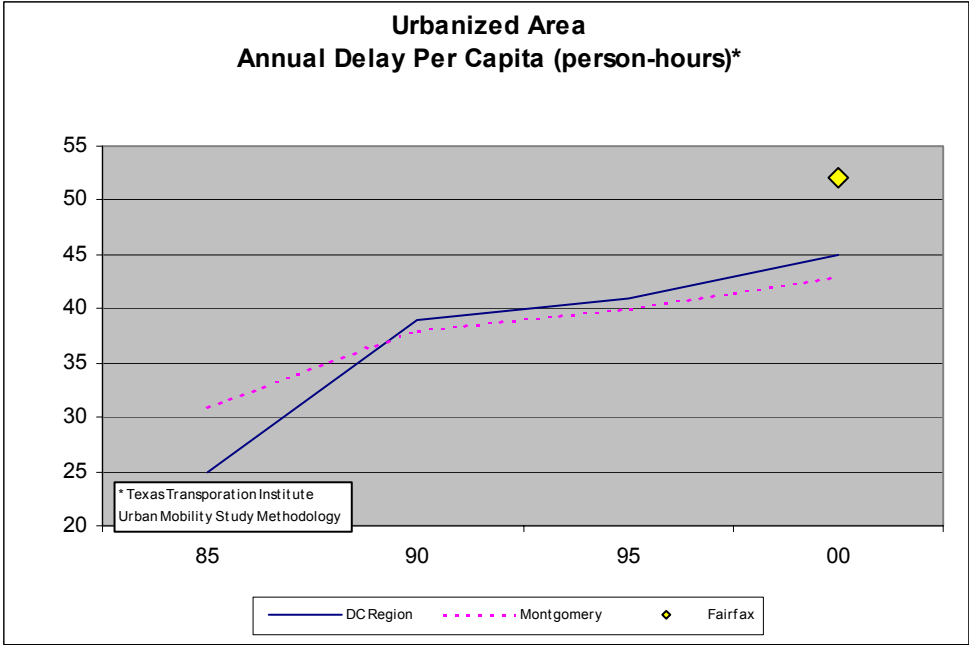


Figure 11 presents an estimate of congestion derived from the TTI approach. The TTI Congestion Index is an average measure of daily volume-to-capacity ratio, using LOS C capacities. Montgomery County's index was higher than the region in 1985, but consistently lower than the region since 1990.



**Figure 11**

Figure 12 shows another TTI congestion measure. Annual delay per capita is estimated based on V/C ratio and assumptions about typical speeds. It does attempt to account for delay from incidents. Montgomery County's delay was higher than the region in 1985, but slightly lower than the region since 1990, and much lower than Fairfax County.



**Figure 12**

## V. Comparison of Montgomery and Fairfax

The analysis presented in the previous section indicates that Montgomery County is carrying less VMT per lane mile than Fairfax County. Yet the latest 2000 Census Journey-to-Work data shows a travel trend at odds with the TTI result: *Montgomery County's average commute time to work is increasing faster than Fairfax County's.*

Between 1990 and 2000, Montgomery County's average trip time to work increased from 29.5 to 32.8 minutes, an increase of 11.1%. Fairfax County's average trip time increased from 29.6 to 30.7 minutes, an increase of 3.7%.

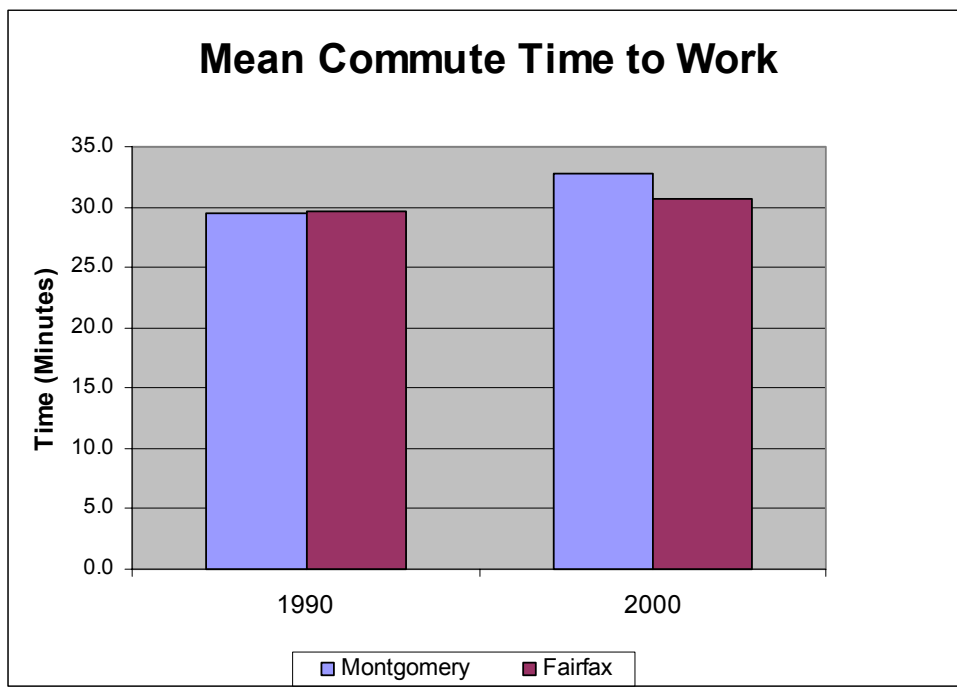


Figure 13

Why did average commute time increase more in Montgomery County? What differences in policies, demographics, and urban form contribute to travel conditions?

- **Highway network differences are very significant.** Table 4 of this report summarizes the route miles of roadway in Fairfax and Montgomery Counties. Montgomery County has more 6-lane principal arterials and this contributes to the better VMT per lane mile findings. But Fairfax has significantly more freeway route miles, so the average travel speeds, even under congested conditions, should tend to be higher.

- **Montgomery County has a higher transit share.**

Montgomery County has a much higher transit mode share for work trips than Fairfax, 13.4% compared with 7.6%. During the 90's, Montgomery's transit share increased slightly while Fairfax's dropped slightly.

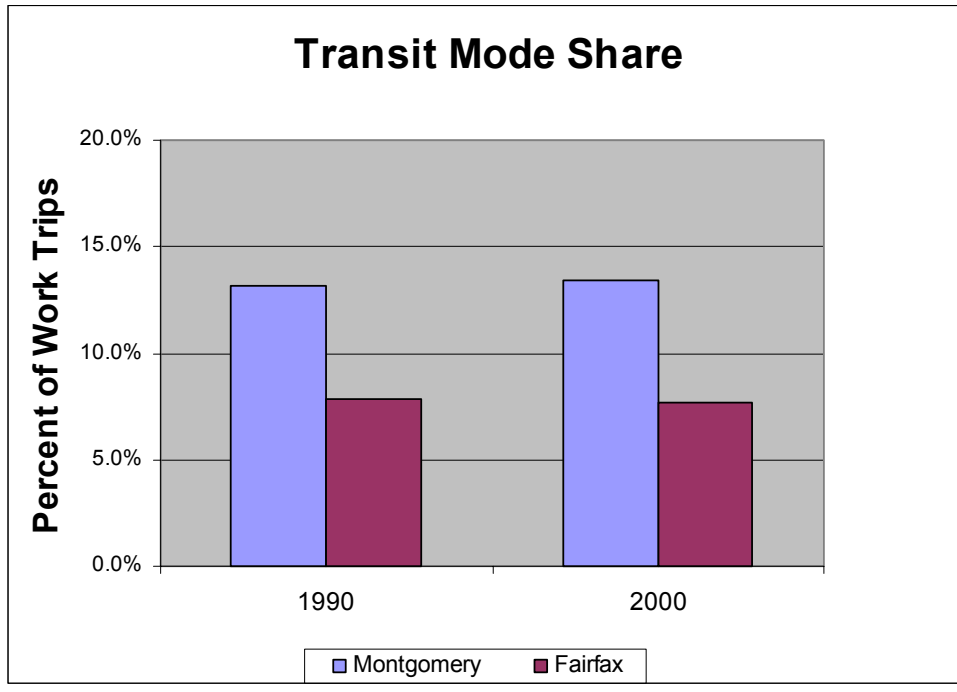


Figure 14

- **Transit trips typically have longer travel times than auto trips.**

Figures 17 and 18 show the commute time to work by mode for Montgomery County and Fairfax County residents. Nearly all transit trips made by Montgomery County residents are greater than 30 minutes; roughly one-third of the trips that are longer than 45 minutes are made on transit. Transit trips are a much smaller share in Fairfax County but they do make up 20% of the trips over 45 minutes. The percent of trips less than 30 minutes in Fairfax is 48%, compared with 45% in Montgomery.

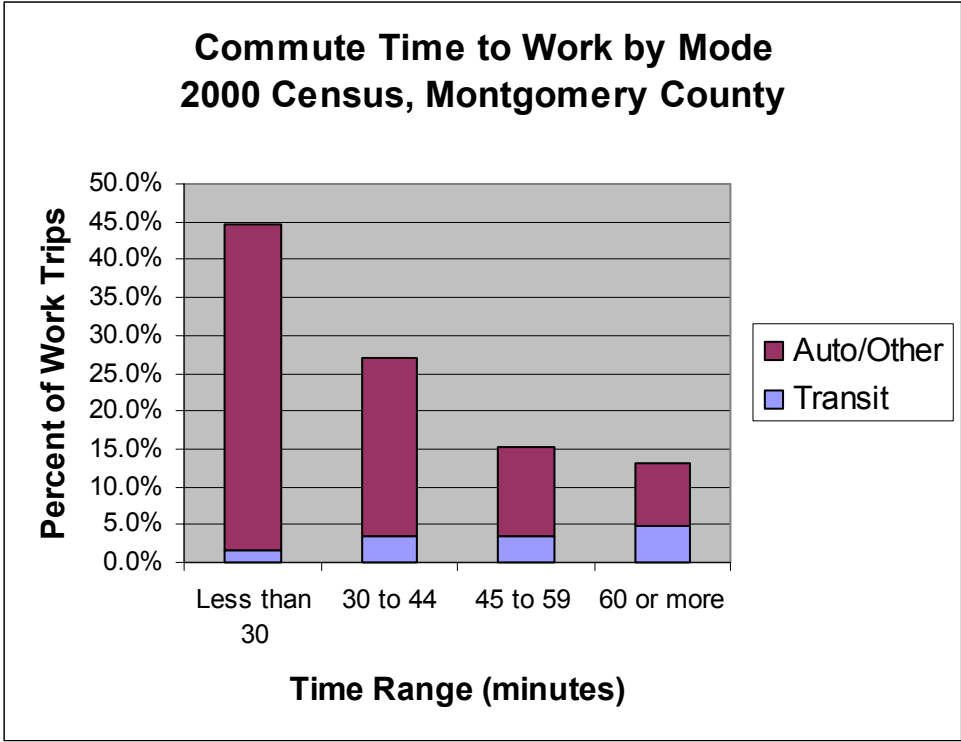


Figure 15

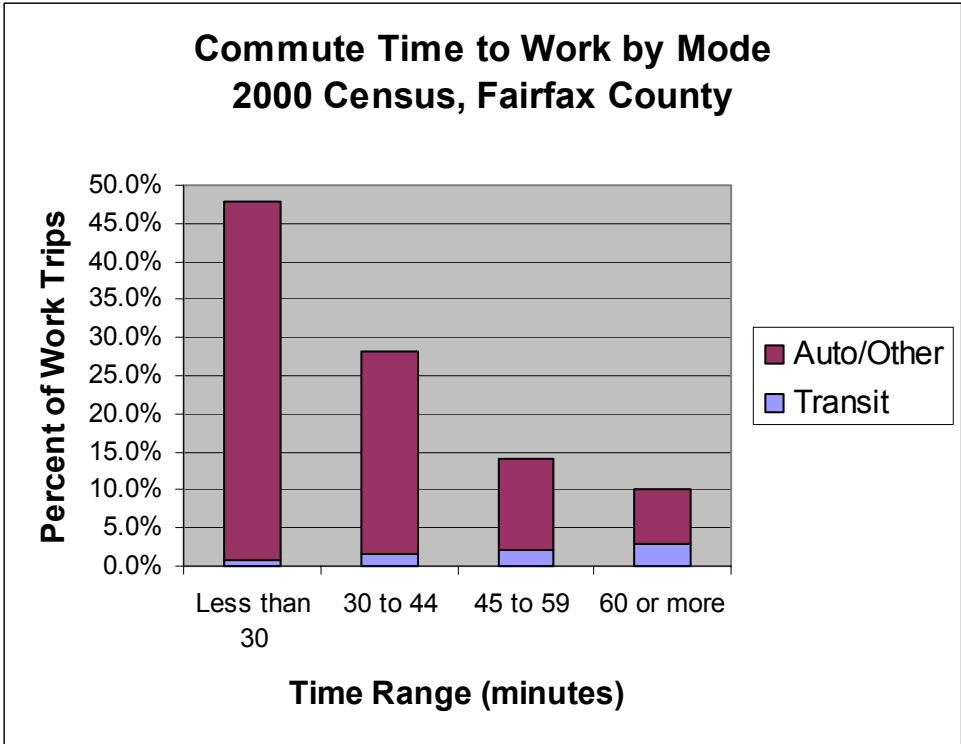


Figure 16

- **Fairfax County is improving its job-to-housing ratio.**

Figure 15 shows that Montgomery County has a higher job-to-housing (J/H) ratio than Fairfax, but in the 1990's, Fairfax has increased jobs relative to housing faster than Montgomery County. A better balance between jobs and housing usually leads to more trips staying within the county to work.

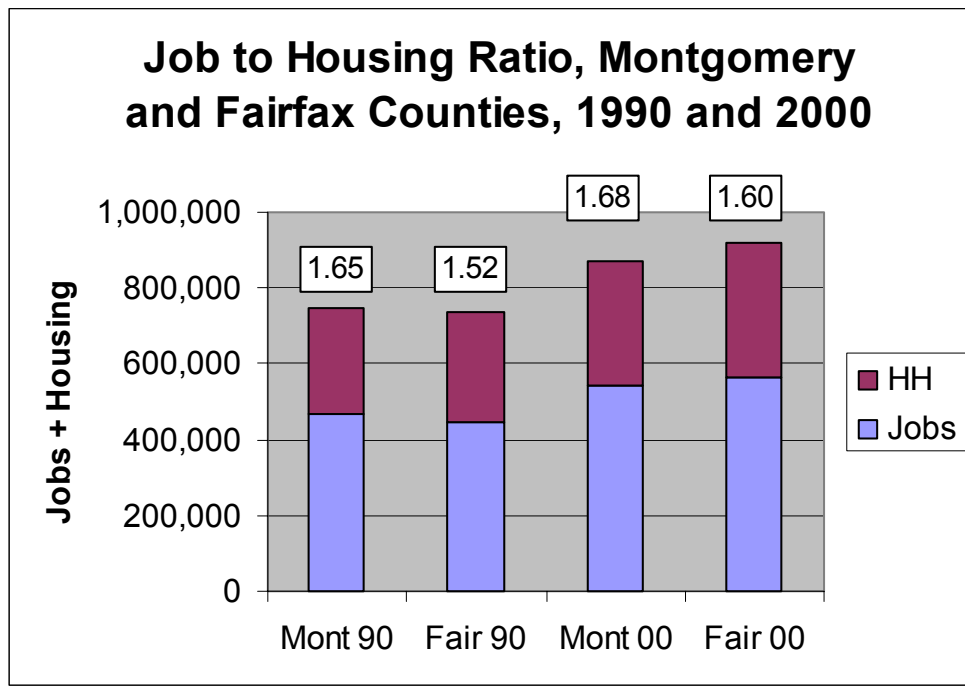


Figure 17

- **Montgomery County has a higher share of work trips that stay within county, but a higher share that work in D.C. than Fairfax County.**  
 Commute times to the Washington CBD Core tend to be longer than to suburban work locations. This would contribute to a higher work time for Montgomery County residents. Another issue is the dispersal of work locations within county – does Fairfax County have a more dispersed pattern of job locations? Dispersed jobs would tend to be closer on average to residences, but much harder to serve with transit.

Figure 16 compares the work locations for Montgomery and Fairfax residents. The percent of county residents that work within the same county is higher in Montgomery than Fairfax, 58% vs. 51%, but Montgomery County has a higher percentage that work in D.C., 24% vs. 19%.

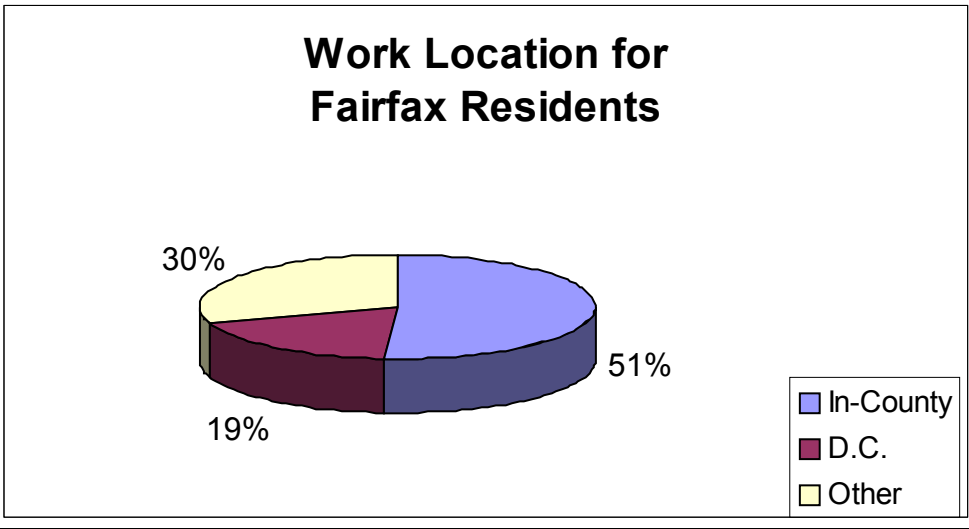
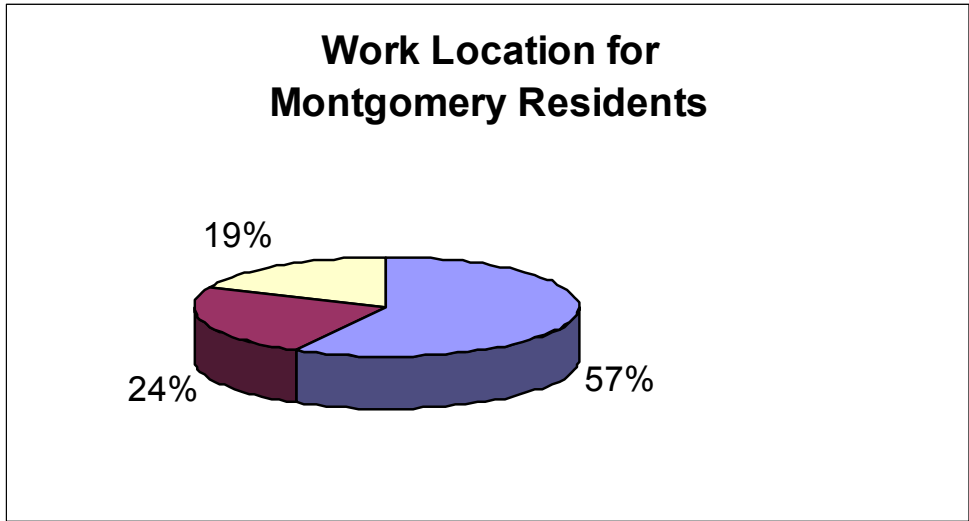


Figure 18

- **Montgomery County has focused land uses around Metrorail stations.**

A recent University of Maryland Study used satellite images to measure “sprawl” by calculating the amount of development away from Metro stations. Raw areas were normalized based on size differences between the two counties.

The study found that Montgomery County consistently developed closer to Metro than Fairfax between 1973 and 1985. That trend continued between 1985 and 1990 when Montgomery County consistently developed closer to Metro than Fairfax.

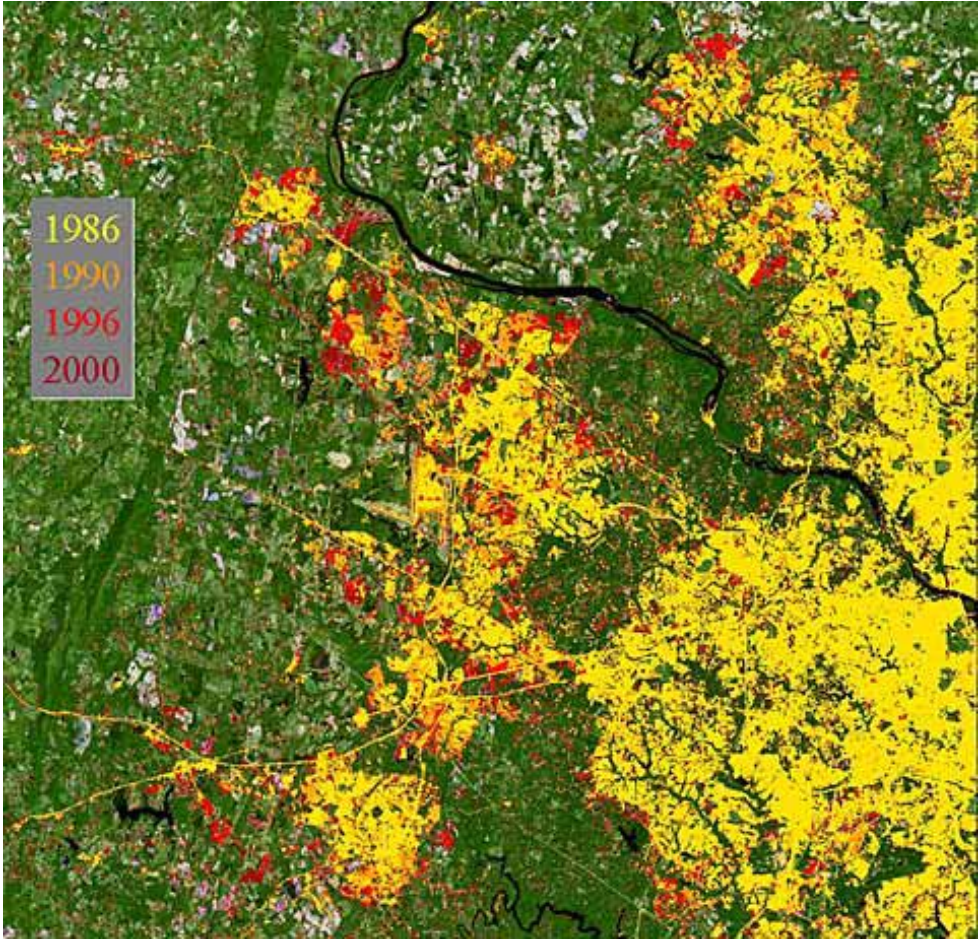


Figure 19

**LANDSAT Data Showing Urban growth in the Washington D.C. region**

Source: Mid-Atlantic RESAC, Department of Geography, University of Maryland, College Park



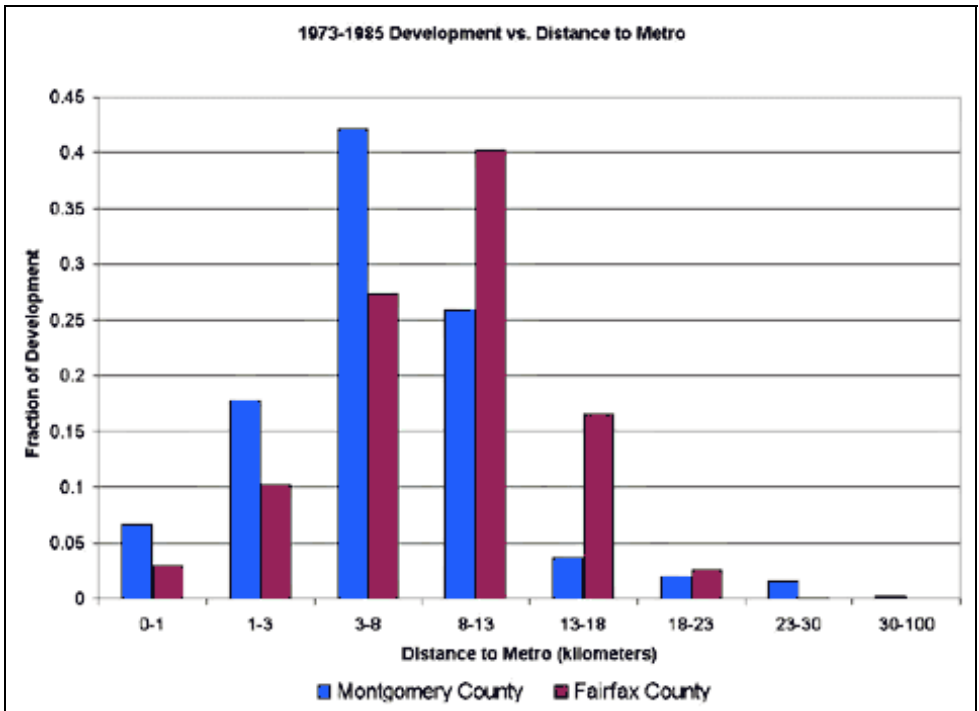


Figure 20

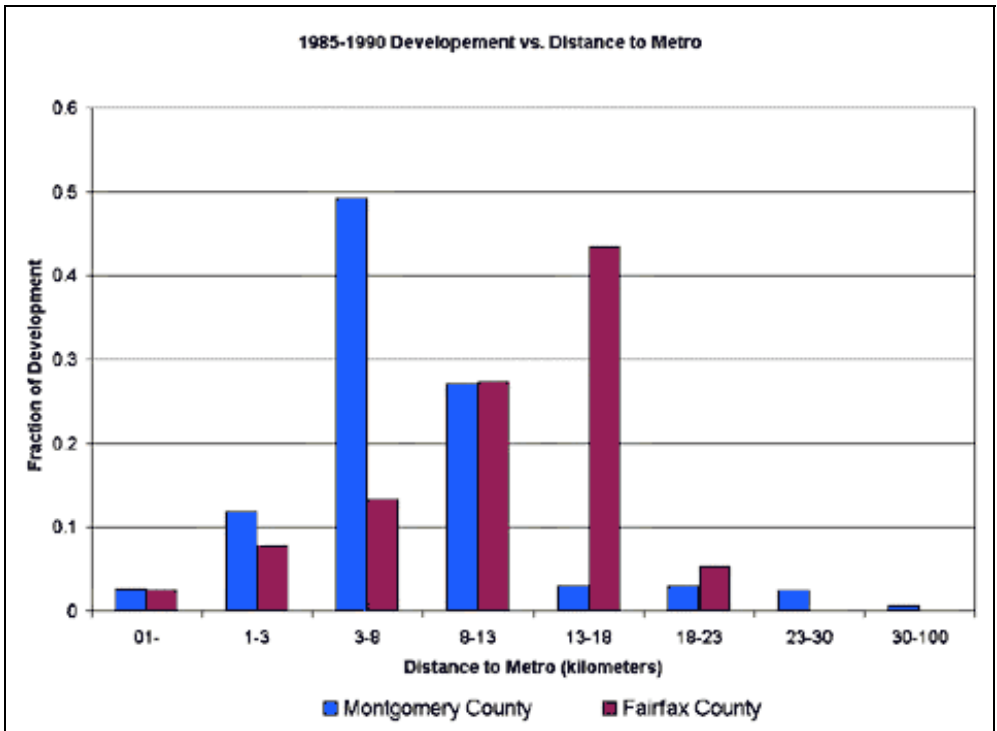


Figure 21

Source: Mid-Atlantic RESAC, Department of Geography, University of Maryland, College Park

A similar pattern is shown for development under 13km, but Montgomery County appears to be spreading out, with almost 10% of new development occurring between 23 and 30 km from Metro. Fairfax does not have any new development more than 23 km from Metro.

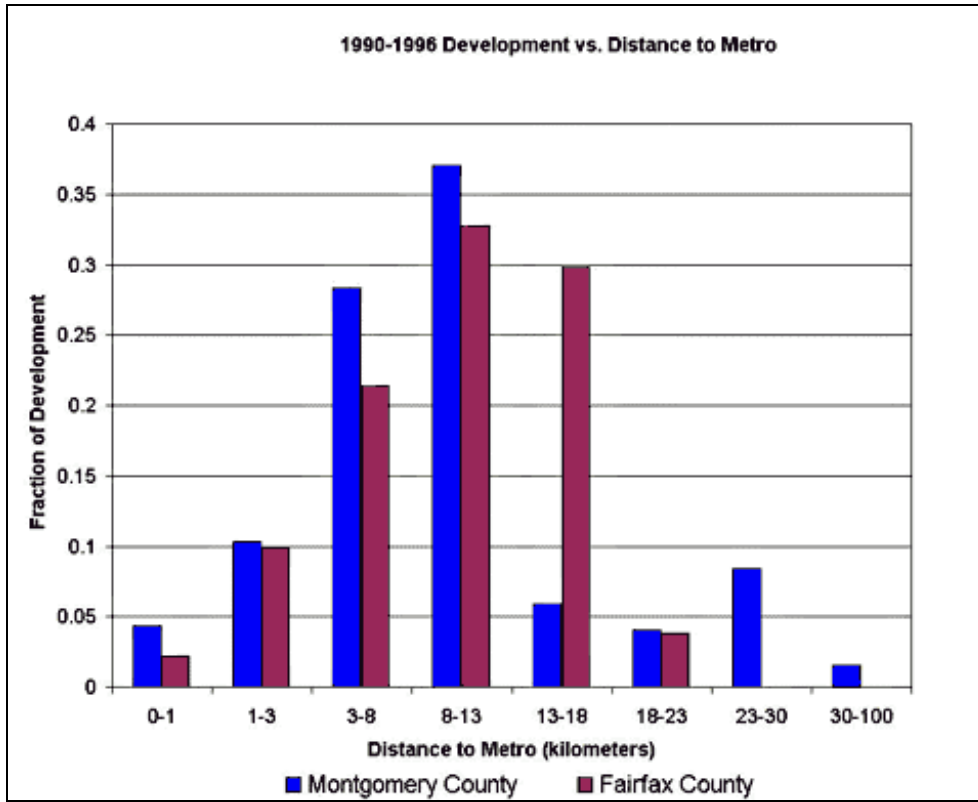


Figure 22

Rates of Land Conversion were Consistently Lower in Montgomery than in Fairfax

Square kilometers of development per year		
Time Period	Montgomery	Fairfax
1973-1985	3.5	5.7
1985-1990	4.6	10
1990-1996	2.6	4.5

Source: Mid-Atlantic RESAC, Department of Geography, University of Maryland, College Park

**Table 1, Montgomery County Totals 1985-2000: VMT Per Lane Mile**

Land Use Totals	1985	1990	1995	2000	% Change 85-00
Jobs ('000s)	381	466	462	546	43.3%
Population ('000s)	628	757	813	873	39.0%
Lane Miles	1985	1990	1995	2000	% Change 85-00
Freeway	262	337	360	371	41.8%
Principal Arterial	492	596	620	677	37.8%
Minor Arterial	471	496	562	573	21.6%
Collector	717	745	745	769	7.3%
TOTAL	1,941	2,174	2,287	2,391	23.1%
VMT	1985	1990	1995	2000	% Change 85-00
Freeway	4,135,316	4,747,434	6,190,650	6,702,510	62.1%
Principal Arterial	3,970,368	4,883,190	4,539,786	4,945,715	24.6%
Minor Arterial	2,141,632	2,552,171	3,420,097	3,498,581	63.4%
Collector	1,617,805	1,939,698	2,085,205	2,104,420	30.1%
TOTAL	11,865,121	14,122,493	16,235,739	17,251,227	45.4%
VMT/Lane Mile	1985	1990	1995	2000	% Change 85-00
Freeway	15,788	14,094	17,214	18,048	14.3%
Principal Arterial	8,077	8,198	7,321	7,302	-9.6%
Minor Arterial	4,544	5,141	6,081	6,105	34.3%
Collector	2,257	2,603	2,800	2,736	21.2%
TOTAL	6,111	6,496	7,100	7,216	18.1%

**Table 2, Washington Region\* Comparison 1985-2000: VMT Per Lane Mile**

	Washington Region				Montgomery				Fairfax
	1985	1990	1995	2000	1985	1990	1995	2000	2000
<b>Population ('000s)</b>	2860	3100	3445	3560	565	681	732	785	965
<b>Freeway</b>									
Daily VMT (000)	19,460	25,080	32,460	34,535	3,843	4,310	5,830	6,313	10,515
Lane-miles	1,290	1,520	1,800	1,885	234	309	336	343	571
VMT/Lane-mile	15,085	16,500	18,033	18,321	16,449	13,968	17,357	18,391	18,415
Fwy. Lane Miles per Capita	0.45	0.49	0.52	0.53	0.41	0.45	0.46	0.44	0.59
<b>Principal Arterial Streets</b>									
Daily VMT (000)	14,530	17,860	18,680	20,060	3,892	4,762	4,540	4,946	6,372
Lane-miles	2,000	2,200	2,330	2,410	480	581	620	677	643
VMT/Lane-mile	7,265	8,118	8,017	8,324	8,107	8,193	7,321	7,302	9,910
P. A. Lane Miles per Capita	0.70	0.71	0.68	0.68	0.85	0.85	0.85	0.86	0.67

\* All figures are for the urbanized portions of the Washington Region, Montgomery and Fairfax Counties only.

**Table 3, Washington Region 1985-2000: Comparison of TTI Mobility Measures**

	Washington Region			Montgomery			Fairfax		
	1985	1990	1995	2000	1985	1990	1995	2000	2000
<b>Travel Rate Index</b>	1.22	1.35	1.37	1.4	1.24	1.33	1.35	1.4	1.41
<b>Travel Time Index</b>	1.41	1.63	1.63	1.68	1.44	1.6	1.61	1.68	1.71
<b>Percent of Daily Travel in Congestion</b>	30	38	37	39	31	37	37	39	40
<b>Annual Hours of Delay</b>									
Total (1000 Person-hours)	71197	121912	141739	158737	17614	26107	29022	33782	50323
<i>Freeway</i>									
Recurring Person-hours (000)	13534	29277	40011	46677	2789	4923	7039	8533	14502
Incident Person-hours (000)	17594	32205	36010	37342	3626	5415	6336	6826	11602
<i>Principal Arterial Street</i>									
Recurring Person-hours (000)	19080	28776	31294	35580	5333	7509	7451	8773	11533
Incident Person-hours (000)	20989	31654	34424	39138	5866	8260	8196	9650	12686
<i>Annual Delay per Capita (person-hours)</i>	25	39	41	45	31	38	40	43	52
<b>Annual Excess Fuel Consumed</b>									
Total (million gallons)	110	184	215	240	27	39	43	50	76
Fuel consumed per capita (gallons)	39	59	62	67	47	57	59	64	79
<b>Annual Congestion Cost</b>									
Total (\$million)	834	1653	2215	2901	204	350	450	571	856
Cost per Capita (\$)	292	533	643	815	362	514	615	727	887
<b>Average Peak Period Travel Speed</b>									
Freeway System (mph)	50	44	43	42	49	44	44	42	41
Prin Arterial Street System (mph)	28	27	26	26	28	27	27	26	26
<b>Roadway Congestion Index</b>	1.13	1.24	1.32	1.35	1.26	1.15	1.26	1.32	1.41

**Table 4, Route Miles for Freeways and Arterials, Year 2000**

	<b>Montgomery</b>	<b>Fairfax</b>
Freeways	140	286
Principal Arterials	273	245
2-lane	103	36
4-lane	88	178
6 or more lanes	82	31
Minor Arterials	422	482
Total	835	1013

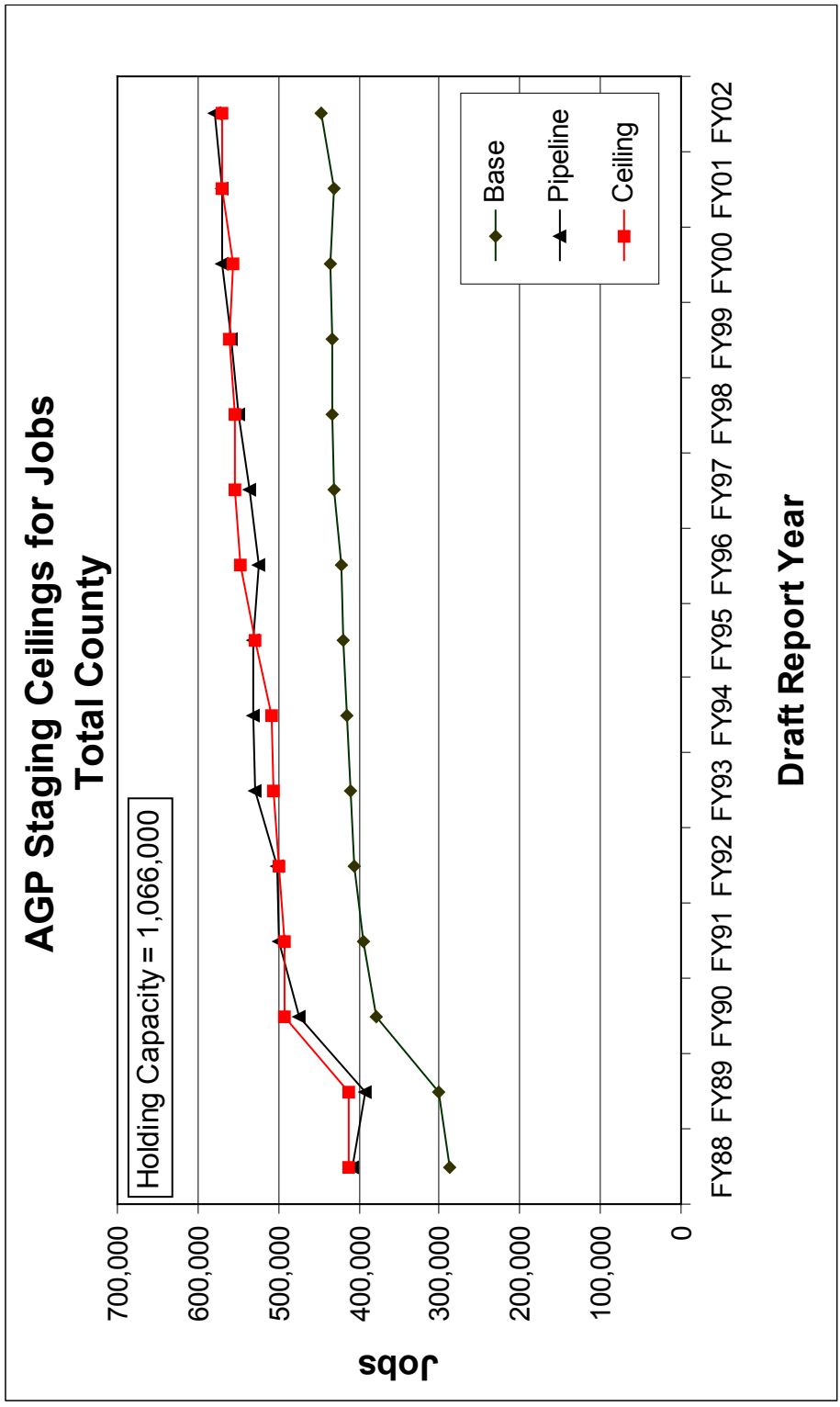
Source: COG Data Clearinghouse

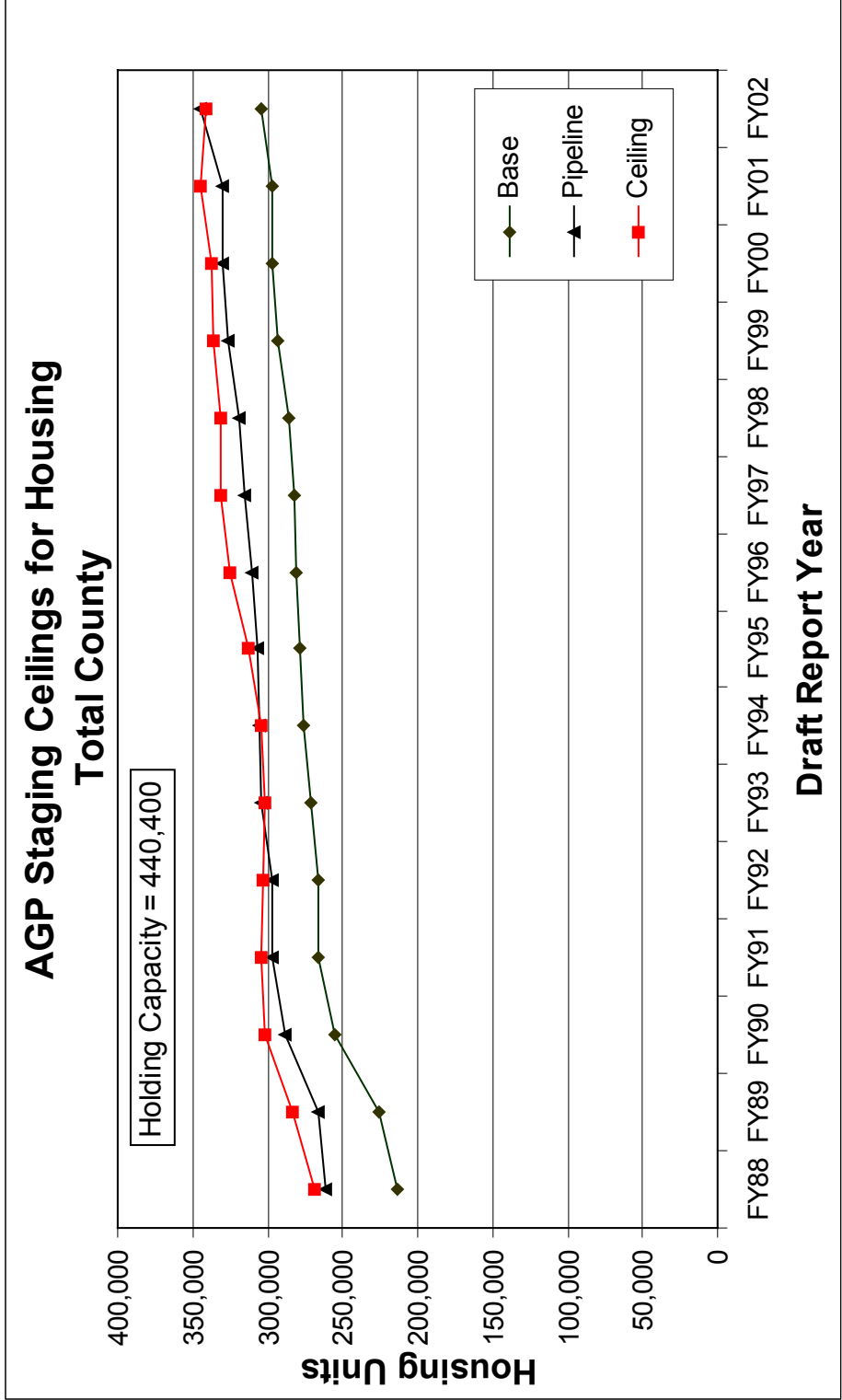
**APPENDIX A**  
**Development Capacity Due to Added Infrastructure, FY88-FY97**

Fiscal Year	Transportation Improvement	Added Jobs Capacity	Added Housing Capacity
FY88	Widening of US-29 Widening of Veirs Mill Road from Randolph to Connecticut Avenue I-270 Widening North of Montgomery Village Avenue Great Seneca Highway Midcounty Highway Key West Avenue Gude Drive	12,400	5,130
FY89	I-495 Widening + 2 lanes from American Legion Bridge to River Road MD-118 Relocated MD28/198 Connector Widen MD 108 in Olney Chapman Avenue MD 355/28 Intersection New Metro Stations: Wheaton & Forest Glen	6,000	10,000
FY90	Construct Father Hurley Blvd Widen MD 108 Laytonsville Rd in Olney Widen New Hampshire Ave Phase I	1,500	2,500
FY91	Widening of Veirs Mill Rd & Twinbrook Pkwy Widening of MD 28 (Darnestown Road) Widening of East Randolph Road Widening of Watkins Mill Road Bridge	4,000	8,000
FY92	Widening of New Hampshire Avenue Widening of West Richie Parkway Construction of Chapman Avenue	5,000	3,500
FY93	Shady Grove Road from Corporate Blvd to Choke Cherry Rd I-270 Southbound from Y-Split to Old Georgetown Road I-495 Widening between N. Hampshire Ave and Rte.1	3,750	4,000
FY94	Widening of I-270 East and West Spurs Widening of Father Hurley Blvd and I-270 from FHB to MD-121 Widening New Hampshire Ave from Randolph Road to MD 198 Germantown Improvements to Support Town Center Build-out Creation of 3 North Bethesda Metro Station Areas	17,420	7,176
FY94 Amendment	Change to Countywide Freeway Test and TTLOS Methodology	11,773	12,342
FY95	Extending Key West Ave from Gude Drive to Research Blvd Widening MD28 from Research Blvd to I-270 Widening Quince Orchard from MD28 to Longdraft Rd	11,250	2,000

Fiscal Year	Transportation Improvement	Added Jobs Capacity	Added Housing Capacity
FY96	Widening MD 355 from MD 124 to Middlebrook Rd Widening MD 118 from A-254 to Clopper Rd Widening Clopper Rd from west of Schaeffer Rd to East of MD 118 Extension of MD 118 relocated south of Clopper Rd	750	2,750
FY96 Policy Element	Creation of Shady Grove Policy Area	1,000	
FY97	Norbeck Road Extended	250	2,000







APPENDIX B 2

## **APPENDIX C**

### **Notable Transportation Improvements Provided by the Private Sector to Meet AGP Requirements**

#### Germantown East Road Club

MD 27 (Ridge Road): 6.8 lane miles

*6 lanes from I-270 to A-19 (Observation Drive) and 4 lanes from A-19 to Brink Road*

MD 355 (Frederick Road): 9.2 lane miles

*5 lanes from MD 118 to Archdale Road and 4 lanes from MD 118 to north of MD 27*

A-19 (Observation Drive): 7.5 lane miles

*4 lanes from MD 118 to north of Ridge Road*

I-270/Father Hurley Boulevard: *Dedication of Right-of Way*

*Total: 23.5 lane miles. Supported: 3,040 dwelling units and 22,100 jobs*

#### Germantown West Road Club

A-297 (Richter Farm Road): 11.3 lane miles

*4 lanes from Great Seneca Highway to MD 117 (Clopper Road)*

2. MD 118 Relocated: 2.6 lane miles

*2 lanes from Wisteria Drive to south of MD 117*

Father Hurley Boulevard: 0.7 lane miles

*2 lanes from A-254 (Dawson Farm Road) to A-80 (Hopkins Road)*

4. A-254 (Dawson Farm Road): 3.4 lane miles

*4 lanes from Father Hurley Boulevard to Great Seneca Highway*

*Total: 18.0 lane miles. Supported: 4,450 dwelling units*

#### Clarksburg Road Club

MD 27 (Ridge Road): 2.7 lane miles

*6 lanes (2 additional) from Observation Drive to A-305 (Midcounty Arterial)*

A-305 (Midcounty Arterial): 10.6 lane miles

*4 lanes from MD 27 to Stringtown Road*

A-302 (Newcut Road): 4.4 lane miles

*4 lanes from MD 355 to A-305 and 2 lanes from A-305 to MD 27*

A-306 (Foreman Boulevard): 0.8 lane miles

*2 lanes from current terminus at Timber Creek Lane to A-305*

Stringtown Road: 0.5 lane miles

*4 lanes (2 additional) from MD 355 to A-305*

*Total: 19.0 lane miles. Supported: 3,900 dwelling units and 270 jobs*

Grand Total: 60.5 lane miles

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## News Release

### CONTACT:

Neil H. Greenberger, Public Information Manager, 240-314-8115

Jennifer Strohm, Public Information Specialist, 240-314-8116

### Rockville Adopts Limited Moratorium On Major New Development

*Mayor and Council Decide to Limit Projects on Phased-In Basis Until City Can Adopt New Zoning Ordinance in 2007*

ROCKVILLE, Md., Nov. 17, 2006—Rockville's Mayor and Council on Monday, Nov. 13, adopted a measure that would pause for a limited period certain new development while the city works to complete the two-year revision of its Zoning Ordinance.

The adopted resolution is a modified version of a recommendation from the Representatives of Rockville Zoning Ordinance Review (RORZOR) committee, a working group the Mayor and Council appointed in February to assist the City with revising its land use standards. RORZOR had recommended adoption of a moratorium that also would halt some projects that had already received various forms of approvals from the City, but the majority of the Mayor and Council did not want the moratorium to apply to those projects.

Mayor Larry Giammo and Councilmembers Susan Hoffmann and Anne Robbins voted to approve a revised version of the recommendation, making it apply only to projects that have not yet been submitted to the City for approvals, but allowing projects that have received some level of development approval to continue through the review process. Councilmembers Bob Dorsey and Phyllis Marcuccio voted against the resolution.

Rockville has been undertaking a process that will update and significantly revise its Zoning Ordinance. That project likely will not be ready for adoption until sometime in late 2007. RORZOR suggested the City adopt a moratorium due to concern that applications for major development may be rushed in to meet current zoning laws.

The moratorium, with staggered initiation dates on new applications (depending upon the type of project), will be in effect until Dec. 15, 2007, but would end earlier if a new zoning ordinance is adopted prior to that date.

With few exceptions, single-family detached dwelling units in one-family residential zones would not be affected by the moratorium. Residential building permits are not included in the moratorium. Therefore, any application that does not require a variance may continue to be filed.

Applications for residential variances (slight alterations of the existing setback, height and other dimensional standards of the Zoning Ordinance approved by the Board of Appeals) are not affected until Sept. 7, 2007. This means that decks, fences and other modifications to a home can continue. Projects that have been approved for building permits also are not affected. Variances for nonresidential development may be filed under the moratorium until March 15, 2007.

Major projects that have already received some levels of approvals and will not be affected by the moratorium include the mix-use developments of Twinbrook Commons, Tower Oaks and the Upper Rock District.

The ordinance immediately applies to applications for large-scale development or redevelopment projects, such as mixed-use developments.

Starting Dec. 29, 2006, applications will be halted for most other commercial developments requiring use permits. Projects in single-family residential zones would not be affected at this point.

Starting March 15, 2007, applications for new special exceptions will no longer be accepted (except for publicly owned or operated buildings; projects necessary to achieve compliance with ADA or any other applicable health or safety laws; or applications for modifications of a previously approved special exception where the gross floor area is not increased by more than 10 percent). Applications for projects that would include more than three single-family homes would no longer be accepted after this date.

After Sept. 7, 2007, no further zoning applications will be accepted.

The purpose of the staggered moratorium is to "clear the pipeline" of projects under consideration. This would greatly

reduce the number of projects under consideration when the revised Zoning Ordinance goes into effect, meaning that future projects would fall under the regulations of the new ordinance.

RORZOR will hold a public forum on Thursday, Dec. 7, starting at 7 p.m. in the Mayor and Council Chambers at City Hall to discuss its progress over the past year in revising the Zoning Ordinance. Citizens will have the opportunity to talk with RORZOR members about measures being considered in the revised ordinance.

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Rockville City Government  
Rockville City Hall • 111 Maryland Avenue • Rockville, MD 20850  
240-314-5000

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