

## **Regional Travel Trends Report**

### **Introduction**

This report summarizes major travel trends in the metropolitan Washington region for the 2000-2006 time period. The purpose this report is to provide an overall context for many recently observed changes in regional travel identified in the National Capital Region Transportation Planning Board's (TPB) travel monitoring and data collection activities. It also seeks to increase local policy makers' awareness and understanding of some of the major factors underlying these changes.

The data in this report is drawn from a number of different sources. No single source of comprehensive data was available for this travel trends report. Rather, the data in this report was assembled from many different sources. These data sources included population and worker characteristic data from the 2000 Decennial Census and the new American Communities Survey (ACS), population, group quarter and housing unit estimates from the Federal State Cooperative Program for Population Estimates (FSCPE); employment and labor force data from the Bureau of Labor Statistics' Quarterly Census of Employment and Wages (QCEW) and Local Area Unemployment Statistics (LAUS) program; Highway Performance Monitoring System (HPMS) and travel monitoring data from the District of Columbia Department of Transportation (DDOT), the Maryland State Highway Administration (MDSHA), the Virginia Department of Transportation (VDOT) and the TPB Regional Transportation Data Clearinghouse; and transit ridership statistics from the Washington Metropolitan Area Transit Authority (WMATA), the Northern Virginia Transportation Commission (NVTC), and from Montgomery and Prince George's County planning staff.

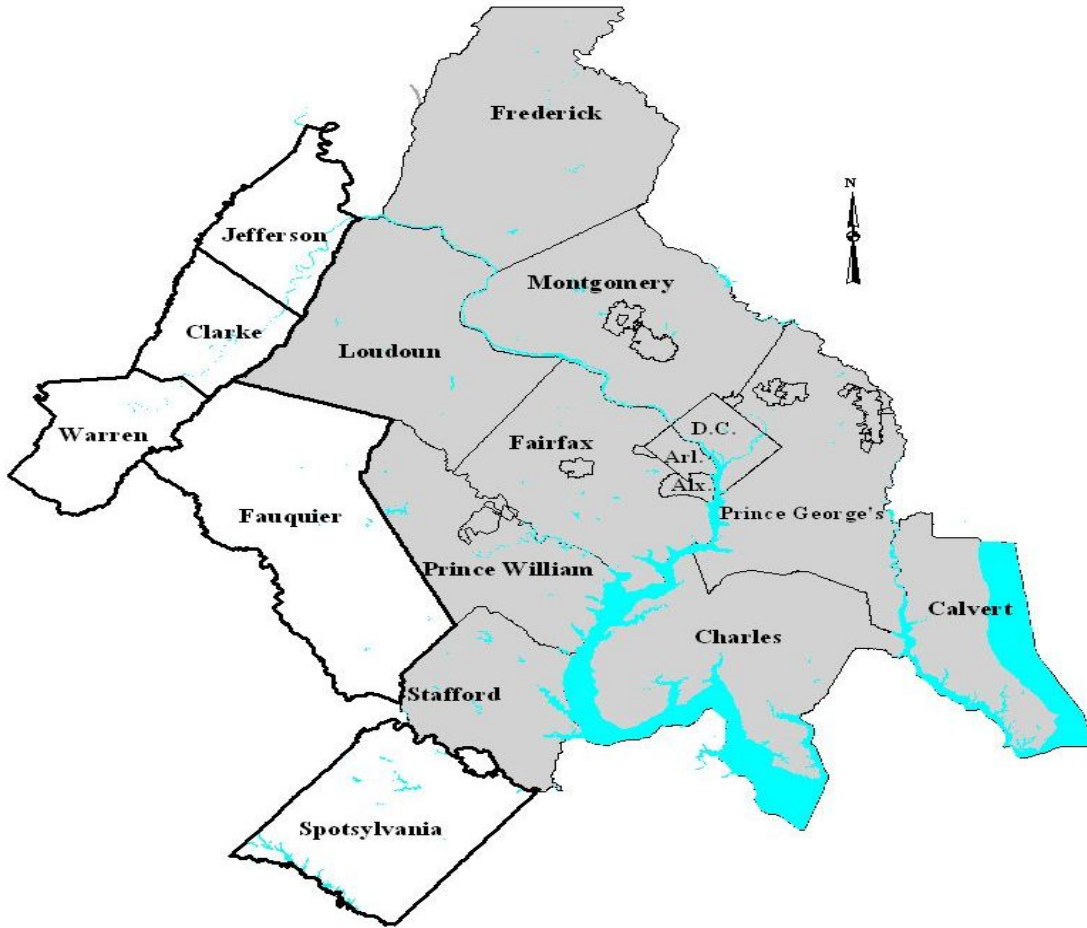
### **Trends in Regional Population Growth**

The rate and spatial pattern of population growth within a region are key factors that underlie changes in regional travel trends. The metropolitan Washington region has been one of the fastest growing metropolitan areas in the nation for the last several decades. Also, the geographic extent of what is now considered to be part of the metropolitan Washington area by the Census Bureau and other federal agencies has grown considerably over the last two decades. In 2003, the Federal Office of Management and Budget (OMB) using commuting and other data collected in the 2000 Census expanded the definition of the metropolitan Washington area for federal statistical purposes to include a total of 22 counties and cities in a geographic land area covering 5,600 square miles. This new Washington-Arlington-Alexandria DC-MD-VA-WV Metropolitan Statistical Area (MSA, 2003) is considerably larger than the definition of the Washington

DC-MD-VA Metropolitan Statistical Area that has been commonly used since 1983 (Figure 1).

**Figure 1**

**Washington-Arlington-Alexandria DC-MD-VA-WV  
Metropolitan Statistical Area (2003)**



Note: The gray shaded area in Figure 1 shows the jurisdictions included the 1983 definition of the Washington-DC-MD-VA MSA.

The data presented in Table 1 show the change in regional population growth in the decade between 1990 and 2000 for both the 1983 and 2003 MSA definitions of the Washington region. The data in this table show about the same percentage increase in population growth for both MSA definitions during the 1990s, 16%. The data in Table 1 further show the greatest absolute change in population in this decade occurring in the Inner Suburban jurisdictions of Fairfax and Montgomery Counties. Although Loudoun County had the largest percentage population increase at 97%, both Fairfax and Montgomery added more population in absolute terms than Loudoun, which had the third largest absolute increase. Prince George's County had the fourth largest increase in population and Prince William County had the fifth largest.

There was virtually no net increase in population in the region's Central Area jurisdictions during the 1990s. Although Arlington and Alexandria both added population, their combined increase of about 36,000 persons was almost completely offset by the decline in population in the District of Columbia.

**Table 1**

**Change in Population  
1990-2000**

<b>Jurisdiction</b>	<b>1990</b>	<b>2000</b>	<b>Change 1990- 2000</b>	<b>% Change 1990- 2000</b>	<b>% Average Annual Change</b>
District of Columbia	606,900	572,059	-34,841	-6%	-0.6%
Arlington County	170,936	189,453	18,517	11%	1.0%
City of Alexandria	111,183	128,283	17,100	15%	1.4%
<b>Central Area Jurisdictions</b>	<b>889,019</b>	<b>889,795</b>	<b>776</b>	<b>0%</b>	<b>0.0%</b>
Montgomery County	757,027	873,341	116,314	15%	1.4%
Prince George's County	729,268	801,515	72,247	10%	0.9%
Fairfax County	818,584	969,749	151,165	18%	1.7%
City of Fairfax	19,622	21,498	1,876	10%	0.9%
City of Falls Church	9,578	10,377	799	8%	0.8%
<b>Inner Suburbs</b>	<b>2,334,079</b>	<b>2,676,480</b>	<b>342,401</b>	<b>15%</b>	<b>1.4%</b>
Loudoun County	86,129	169,599	83,470	97%	7.0%
Prince William County	215,686	280,813	65,127	30%	2.7%
City of Manassas	27,957	35,135	7,178	26%	2.3%
City of Manassas Park	6,734	10,290	3,556	53%	4.3%
Stafford County	61,236	92,446	31,210	51%	4.2%
Frederick County	150,208	195,277	45,069	30%	2.7%
Charles County	101,154	120,546	19,392	19%	1.8%
Calvert County	51,372	74,563	23,191	45%	3.8%
<b>Outer Suburbs</b>	<b>700,476</b>	<b>978,669</b>	<b>278,193</b>	<b>40%</b>	<b>3.4%</b>
<b>Washington MSA (1983)</b>	<b>3,923,574</b>	<b>4,544,944</b>	<b>621,370</b>	<b>16%</b>	<b>1.5%</b>
City of Fredericksburg	19,027	19,279	252	1%	0.1%
Spotsylvania County	57,403	90,395	32,992	57%	4.6%
Fauquier County	48,741	55,139	6,398	13%	1.2%
Warren County	26,142	31,584	5,442	21%	1.9%
Clarke County	12,101	12,652	551	5%	0.4%
Jefferson County	35,926	42,190	6,264	17%	1.6%
<b>Outer Ring Jurisdictions</b>	<b>199,340</b>	<b>251,239</b>	<b>51,899</b>	<b>26%</b>	<b>2.3%</b>
<b>Washington MSA (2003)</b>	<b>4,122,914</b>	<b>4,796,183</b>	<b>673,269</b>	<b>16%</b>	<b>1.5%</b>

Source: Decennial Census, 1990 and 2000.

Lead by Loudoun County, the region's Outer Suburbs showed the fastest rate of population growth between 1990 and 2000 with an average annual growth rate of 3.4%. All outer suburban jurisdictions had a faster rate of growth than the region as a whole by either MSA definition. Of the six "Outer Ring" jurisdictions, only Spotsylvania grew at

an average annual growth rate that was substantially faster than Washington MSA (2003) as a whole. Table 2 shows 2000 to 2006 changes in total population for both the 1983 and 2003 MSA definitions for the Washington region. The data in this table show some significant changes in regional population growth trends compared to the earlier decade.

**Table 2**  
**Change in Population**  
**2000-2006**

Jurisdiction	2000	2006	Change 2000- 2006	% Change 2000- 2006	% Average Annual Change
District of Columbia	571,042	581,530	10,488	2%	0.3%
Arlington County	189,310	199,776	10,466	6%	0.9%
City of Alexandria	129,173	136,974	7,801	6%	1.0%
<b>Central Area Jurisdictions</b>	<b>889,525</b>	<b>918,280</b>	<b>28,755</b>	<b>3%</b>	<b>0.5%</b>
Montgomery County	878,683	932,131	53,448	6%	1.0%
Prince George's County	802,712	841,315	38,603	5%	0.8%
Fairfax County	975,332	1,010,443	35,111	4%	0.6%
City of Fairfax	21,649	22,422	773	4%	0.6%
City of Falls Church	10,408	10,799	391	4%	0.6%
<b>Inner Suburbs</b>	<b>2,688,784</b>	<b>2,817,110</b>	<b>128,326</b>	<b>5%</b>	<b>0.8%</b>
Loudoun County	173,994	268,817	94,823	54%	7.5%
Prince William County	283,824	357,503	73,679	26%	3.9%
City of Manassas	35,408	36,638	1,230	3%	0.6%
City of Manassas Park	10,336	11,642	1,306	13%	2.0%
Stafford County	93,576	120,170	26,594	28%	4.3%
Frederick County	196,594	222,938	26,344	13%	2.1%
Charles County	121,278	140,416	19,138	16%	2.5%
Calvert County	75,191	88,804	13,613	18%	2.8%
<b>Outer Suburbs</b>	<b>990,201</b>	<b>1,246,928</b>	<b>256,727</b>	<b>26%</b>	<b>3.9%</b>
<b>Washington MSA (1983)</b>	<b>4,568,510</b>	<b>4,982,318</b>	<b>413,808</b>	<b>9%</b>	<b>1.5%</b>
City of Fredericksburg	19,311	21,273	1,962	10%	1.6%
Spotsylvania County	91,577	119,529	27,952	31%	4.5%
Fauquier County	55,586	66,170	10,584	19%	2.9%
Warren County	31,725	36,102	4,377	14%	2.2%
Clarke County	12,709	14,565	1,856	15%	2.3%
Jefferson County	42,451	50,443	7,992	19%	2.9%
<b>Outer Ring Jurisdictions</b>	<b>253,359</b>	<b>308,082</b>	<b>46,731</b>	<b>18%</b>	<b>3.3%</b>
<b>Washington MSA (2003)</b>	<b>4,821,869</b>	<b>5,290,400</b>	<b>468,531</b>	<b>10%</b>	<b>1.6%</b>

Source: FSCPE Population Estimates, for July 1, 2000 and July 1, 2006

The overall average annual rates of population growth in the Inner Suburban jurisdictions of Fairfax and Montgomery Counties slowed significantly relative to the rates observed in the 1990 to 2000 period. Conversely, the rate of population growth in the Outer Suburbs increased markedly, especially in Loudoun and Prince William Counties. In fact, Loudoun and Prince William Counties have already added more population in the first

six years of this decade than they did in the entire ten years of the previous decade. If the annual growth rates observed in the Outer Suburbs from 2000 to 2006 continue through the remainder of this decade, the Outer Suburbs will have added almost 500,000 people between 2000 and 2010. This would be significantly more than the 340,000 added in the Inner Suburbs between 1990 and 2000.

Population growth rates in most Outer Ring jurisdictions also showed significant increases in the 2000 to 2006 period compared to the prior decade, but the overall 3.3% annual growth rate for all Outer Ring jurisdictions combined was less than the overall 3.9% rate observed for the Outer Suburban jurisdictions as a whole. Also, the 47,000 person population increase for the Outer Ring jurisdictions between 2000 and 2006 was just 18% of the 257,000 person population increase in the Outer Suburbs.

Another significant change in the 2000 to 2006 period relative to the prior decade was that the region's Central Area jurisdictions showed a measurable net increase in total population. Combined, these central area jurisdictions were growing at a rate just slightly less than that of the Inner Suburbs. Most significant, was the turnaround in population growth in the District of Columbia. While the District lost population in the decade of 1990 to 2000, it showed a net gain of more than 10,000 residents between 2000 and 2006. Arlington County and the City of Alexandria continued to grow at about same rates they experienced in the previous decade.

Overall, the 2000 to 2006 average annual population growth rate for the larger 2003 MSA definition of the region was slightly more than that of the smaller 1983 MSA definition of the region. One of the reasons for this was that, while population growth for Central Area jurisdictions was significant, it was still less than that of the expanding Outer Ring jurisdictions. It also appears from the 2006 Census American Community Survey (ACS) data for the 2003 MSA definition of the region that household population is growing faster than the increase in the number of households and that average household size has increased from 2.62 to 2.63 persons per household.

### **Growth in Labor Force**

The Bureau of Labor Statistics (BLS) has begun reporting labor force statistics for the Washington region using the 2003 MSA definition. Using this definition, the BLS data show the region's civilian labor force growing from 2.67 million in 2000 to 2.96 million in 2006. This represents an average annual growth rate of 1.8% for the 2000 to 2006 period and is slightly more than 1.6% annual population growth rate for the same geographic area.

Similar to the geographic pattern of population growth, the greatest increases in the civilian labor force in the 2000 to 2006 period were seen in the Outer Suburbs followed by increases in the Inner Suburbs as shown in Table 3. It is also interesting to note that while the population increase in the Outer Ring jurisdictions was 160% of the population increase in the Central Area jurisdictions, the growth in the civilian labor force in the Central Area jurisdictions was just 19% less than in the Outer Ring jurisdictions. This

suggests that most of the population increase in the Central Area jurisdictions, especially in Arlington and Alexandria, is likely composed of smaller size households of working age persons with no or few children while the population increase in the Outer Ring jurisdictions is likely to be composed of larger size households with one or several children.

**Table 3**

**Change in Civilian Labor Force  
2000-2006**

<b>Jurisdiction</b>	<b>2000</b>	<b>2006</b>	<b>Change 2000- 2006</b>	<b>% Change 2000- 2006</b>	<b>% Average Annual Change</b>
District of Columbia	309,421	315,874	6,453	2%	0.3%
Arlington County	118,618	127,546	8,928	8%	1.2%
City of Alexandria	80,458	87,612	7,154	9%	1.4%
<b>Central Area Jurisdictions</b>	<b>508,497</b>	<b>531,032</b>	<b>22,535</b>	<b>4%</b>	<b>0.7%</b>
Montgomery County	489,050	519,688	30,638	6%	1.0%
Prince George's County	430,406	454,601	24,195	6%	0.9%
Fairfax County	547,422	587,520	40,098	7%	1.2%
City of Fairfax	12,432	13,227	795	6%	1.0%
City of Falls Church	6,119	6,634	515	8%	1.4%
<b>Inner Suburbs</b>	<b>1,485,429</b>	<b>1,581,670</b>	<b>96,241</b>	<b>6%</b>	<b>1.1%</b>
Loudoun County	99,476	152,430	52,954	53%	7.4%
Prince William County	152,695	196,161	43,466	28%	4.3%
City of Manassas	19,160	21,228	2,068	11%	1.7%
City of Manassas Park	5,756	6,752	996	17%	2.7%
Stafford County	48,134	63,703	15,569	32%	4.8%
Frederick County	109,912	124,318	14,406	13%	2.1%
Charles County	65,300	74,792	9,492	15%	2.3%
Calvert County	40,479	47,336	6,857	17%	2.6%
<b>Outer Suburbs</b>	<b>540,912</b>	<b>686,720</b>	<b>145,808</b>	<b>27%</b>	<b>4.1%</b>
<b>Washington MSA (1983)</b>	<b>2,534,838</b>	<b>2,799,422</b>	<b>264,584</b>	<b>10%</b>	<b>1.7%</b>
City of Fredericksburg	10,262	11,585	1,323	13%	2.0%
Spotsylvania County	48,232	64,038	15,806	33%	4.8%
Fauquier County	30,037	36,663	6,626	22%	3.4%
Warren County	16,483	19,257	2,774	17%	2.6%
Clarke County	6,866	8,019	1,153	17%	2.6%
Jefferson County	23,350	24,904	1,554	7%	1.1%
<b>Outer Ring Jurisdictions</b>	<b>135,230</b>	<b>164,466</b>	<b>27,682</b>	<b>20%</b>	<b>3.3%</b>
<b>Washington MSA (2003)</b>	<b>2,670,068</b>	<b>2,963,888</b>	<b>293,820</b>	<b>11%</b>	<b>1.8%</b>

**Source:** Bureau of Labor Statistics Local Area Unemployment Statistics (LAUS) programs

While the percent increase in civilian labor force slightly exceeded the percent increase for total population in the 2000 to 2006 period, the BLS unemployment statistics also showed an increase in the regional unemployment rate in this period. These statistics show the unemployment rate for the 2003 MSA increasing from 2.7% in 2000 to 3.1% in 2006.

## **Employment Growth**

Wage and salary employment in the region between 1990 and 2000 grew at an average annual rate of 1.5% for both geographic definitions of the Washington MSA (Table 4). This was about the same average annual rate for population growth in this period.

Similar to the 1990 to 2000 trend in population growth, the greatest absolute changes in wage and salary employment were seen in the Inner Suburban jurisdictions of Fairfax County (+159,000 jobs) and Montgomery County (+ 65,000 jobs). Loudoun County (+48,000 jobs), Frederick County (+ 26,000 jobs) and Prince William County (+23,000 jobs) also showed sizeable increases in wage and salary employment in this period. Wage and salary employment declined in the District of Columbia (-33,000 jobs) because of a significant reduction federal government employment in the District in this period.

The fastest rate of employment growth in the 1990 and 2000 period was in the region's Outer Suburbs. The 4.9% average annual employment growth rate in this part of the region was significantly faster than the 3.4% annual increase in population in this subarea of the region.

Wage and salary employment in the Outer Ring jurisdictions grew at an average annual rate of 3.3% which was twice the rate for the region as whole, but was less than the overall 3.5% average annual population growth rate in the Outer Suburbs.

The rate of growth in the region's wage and salary employment growth slowed somewhat in the 2000 to 2006 period. Overall, the average annual rate of employment growth slowed to 1.4% for the 2003 MSA definition of the region and 1.3% for the older 1983 MSA definition of the region as shown in Table 5. This rate of growth was also below both the rate of population and civilian labor force in the 2000 to 2006 period and was one of the reasons for the slight increase in the unemployment rate in the region. In the 1990 to 2000 period the region's wage and salary employment and population had both been growing at 1.5% annual rate for both the 1983 and 2003 definitions of the MSA.

The geographic distribution of wage and salary employment growth changed considerably in the 2000 to 2006 period compared to the earlier decade. Almost one-half of the increase in employment in this period occurred in the Outer Suburbs, whereas in the 1990 to 2000 period the Outer Suburbs accounted for only about a third of the increase in regional employment. One of the reasons that the Outer Suburbs accounted for a larger share of the new employment growth was that the pace of employment growth slowed considerably in the Inner Suburbs. Employment growth in the Inner

Suburbs dropped from an average annual rate of 2% during 1990s to less than a 1% annual rate in the 2000 to 2006 period.

**Table 4**  
**Change in Wage & Salary Employment**  
**1990-2000**

<b>Jurisdiction</b>	<b>1990</b>	<b>2000</b>	<b>Change 1990- 2000</b>	<b>% Change 1990- 2000</b>	<b>Annual % Chg</b>
District of Columbia	669,154	636,179	-32,975	-5%	-0.5%
Arlington County	149,872	158,242	8,370	6%	0.5%
City of Alexandria	81,361	91,892	10,531	13%	1.2%
<b>Central Area Jurisdictions</b>	<b>900,387</b>	<b>886,313</b>	<b>-14,074</b>	<b>-2%</b>	<b>-0.2%</b>
Montgomery County	382,044	447,208	65,164	17%	1.6%
Prince George's County	287,685	303,252	15,567	5%	0.5%
Fairfax County	378,375	537,746	159,371	42%	3.6%
City of Fairfax	19,959	16,795	-3,164	-16%	-1.7%
City of Falls Church	17,204	14,517	-2,687	-16%	-1.7%
<b>Inner Suburbs</b>	<b>1,085,267</b>	<b>1,319,518</b>	<b>234,251</b>	<b>22%</b>	<b>2.0%</b>
Loudoun County	39,530	87,369	47,839	121%	8.3%
Prince William County	55,064	77,934	22,870	42%	3.5%
City of Manassas	17,110	19,870	2,760	16%	1.5%
City of Manassas Park	1,449	3,912	2,463	170%	10.4%
Stafford County	11,254	24,247	12,993	115%	8.0%
Frederick County	51,022	77,069	26,047	51%	4.2%
Charles County	28,078	36,099	8,021	29%	2.5%
Calvert County	9,496	16,882	7,386	78%	5.9%
<b>Outer Suburbs</b>	<b>213,003</b>	<b>343,382</b>	<b>130,379</b>	<b>61%</b>	<b>4.9%</b>
<b>Washington MSA (1983)</b>	<b>2,198,657</b>	<b>2,549,213</b>	<b>350,556</b>	<b>16%</b>	<b>1.5%</b>
City of Fredericksburg	18,642	23,136	4,494	24%	2.2%
Spotsylvania County	12,029	23,477	11,448	95%	6.9%
Fauquier County	14,089	17,139	3,050	22%	2.0%
Warren County	7,113	10,024	2,911	41%	3.5%
Clarke County	3,692	4,558	866	23%	2.1%
Jefferson County	10,237	12,776	2,539	25%	2.2%
<b>Outer Ring Jurisdictions</b>	<b>65,802</b>	<b>91,110</b>	<b>25,308</b>	<b>38%</b>	<b>3.3%</b>
<b>Washington MSA (2003)</b>	<b>2,264,459</b>	<b>2,640,323</b>	<b>375,864</b>	<b>17%</b>	<b>1.5%</b>

**Source:** Bureau of Labor Statistics Quarterly Census of Employment and Wages (QCEW)



**Table 5****Change in Wage & Salary Employment  
2000-2006**

<b>Jurisdiction</b>	<b>2000</b>	<b>2006</b>	<b>Change 2000- 2006</b>	<b>% Change 2000- 2006</b>	<b>Annual % Chg</b>
District of Columbia	636,179	671,143	34,964	5%	0.9%
Arlington County	158,242	158,184	-58	0%	0.0%
City of Alexandria	91,892	94,050	2,158	2%	0.4%
<b>Central Area Jurisdictions</b>	<b>886,313</b>	<b>923,377</b>	<b>37,064</b>	<b>4%</b>	<b>0.7%</b>
Montgomery County	447,208	464,876	17,668	4%	0.6%
Prince George's County	303,252	312,841	9,589	3%	0.5%
Fairfax County	537,746	574,920	37,174	7%	1.1%
City of Fairfax	16,795	23,099	6,304	38%	5.5%
City of Falls Church	14,517	14,632	115	1%	0.1%
<b>Inner Suburbs</b>	<b>1,319,518</b>	<b>1,390,368</b>	<b>70,850</b>	<b>5%</b>	<b>0.9%</b>
Loudoun County	87,369	125,632	38,263	44%	6.2%
Prince William County	77,934	104,091	26,157	34%	4.9%
City of Manassas	19,870	24,808	4,938	25%	3.8%
City of Manassas Park	3,912	3,955	43	1%	0.2%
Stafford County	24,247	33,048	8,801	36%	5.3%
Frederick County	77,069	92,004	14,935	19%	3.0%
Charles County	36,099	41,985	5,886	16%	2.5%
Calvert County	16,882	21,415	4,533	27%	4.0%
<b>Outer Suburbs</b>	<b>343,382</b>	<b>446,938</b>	<b>103,556</b>	<b>30%</b>	<b>4.5%</b>
<b>Washington MSA (1983)</b>	<b>2,549,213</b>	<b>2,760,683</b>	<b>211,470</b>	<b>8%</b>	<b>1.3%</b>
City of Fredericksburg	23,136	26,871	3,735	16%	2.5%
Spotsylvania County	23,477	29,765	6,288	27%	4.0%
Fauquier County	17,139	21,974	4,835	28%	4.2%
Warren County	10,024	11,537	1,513	15%	2.4%
Clarke County	4,558	4,360	-198	-4%	-0.7%
Jefferson County	12,776	14,573	1,797	14%	2.2%
<b>Outer Ring Jurisdictions</b>	<b>91,110</b>	<b>109,080</b>	<b>16,173</b>	<b>18%</b>	<b>3.0%</b>
<b>Washington MSA (2003)</b>	<b>2,640,323</b>	<b>2,869,763</b>	<b>229,440</b>	<b>9%</b>	<b>1.4%</b>

Source: Bureau of Labor Statistics Quarterly Census of Employment and Wages (QCEW)

It is also important to note the significant turnaround in employment growth in the District of Columbia the 2000 to 2006 time period. In the 1990s the number of wage and

salary jobs in the District declined by almost 34,000 jobs. Most of this decline was the result of a downsizing of the Federal government during this decade. Since 2000, the District has more than offset this loss in Federal employment with an increase of almost 35,000 private sector wage and salary jobs and is now growing at average annual rate equivalent to that of the Inner Suburbs.

### Vehicle Availability

The change in household vehicle availability between 2000 and 2006 for the 2003 MSA is shown in Table 6. In this period vehicle availability grew at an annual rate of 1.6% per year, the same rate as that for total population.

**Table 6**

<b>Change in Household Vehicle Availability 2000 - 2006</b>				
<b>Vehicles Available</b>	<b>2000</b>		<b>2006</b>	
	<b>Number of Households</b>	<b>Percent of Households</b>	<b>Number of Households</b>	<b>Percent of Households</b>
<b>No vehicle available</b>	<b>199,266</b>	<b>10.8%</b>	<b>189,590</b>	<b>9.8%</b>
<b>1 vehicle available</b>	<b>632,983</b>	<b>34.3%</b>	<b>652,435</b>	<b>33.6%</b>
<b>2 vehicles available</b>	<b>688,972</b>	<b>37.3%</b>	<b>696,241</b>	<b>35.8%</b>
<b>3 vehicles available</b>	<b>236,287</b>	<b>12.8%</b>	<b>280,570</b>	<b>14.4%</b>
<b>4 vehicles available</b>	<b>65,444</b>	<b>3.5%</b>	<b>87,101</b>	<b>4.5%</b>
<b>5 or more vehicles</b>	<b>25,112</b>	<b>1.4%</b>	<b>36,579</b>	<b>1.9%</b>
<b>Total Households</b>	<b>1,848,064</b>	<b>100.0%</b>	<b>1,942,516</b>	<b>100.0%</b>
<b>Total Number of Vehicles Available</b>	<b>3,112,146</b>		<b>3,425,242</b>	
<b>2000 to 2006 Change</b>	<b>313,096</b>			
<b>Percent Change</b>	<b>10%</b>			
<b>Average Annual Change</b>	<b>1.6%</b>			

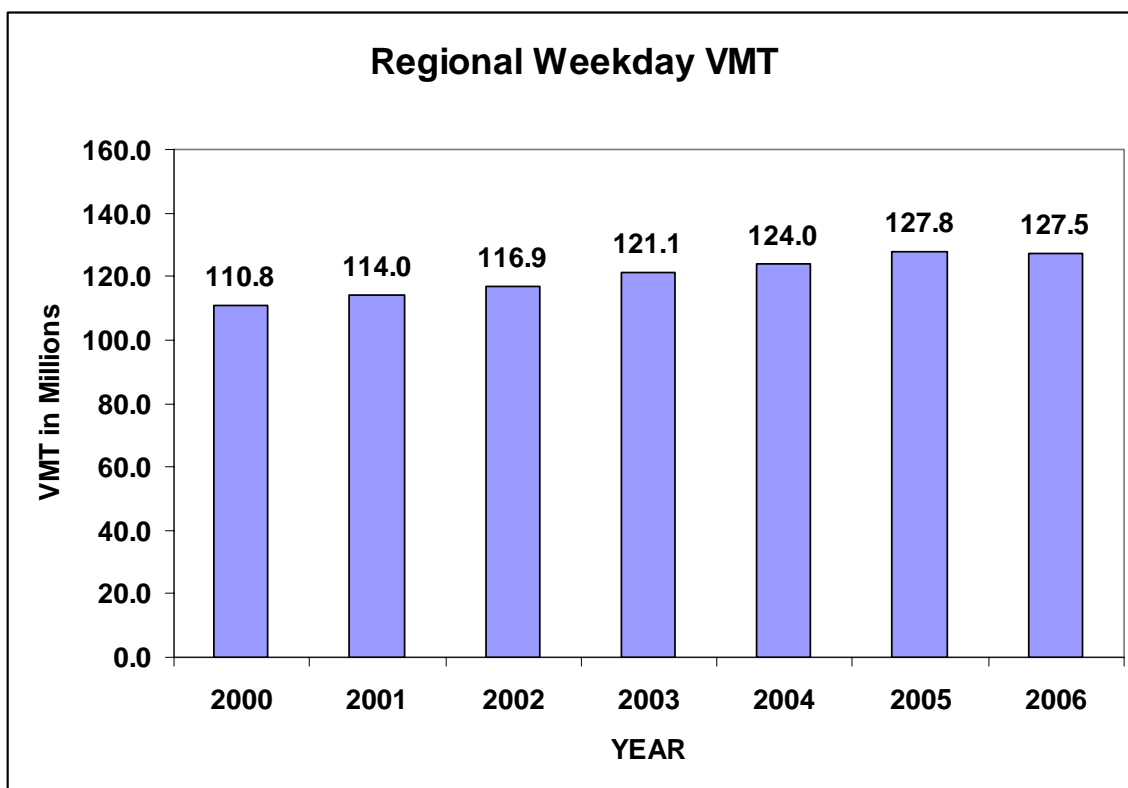
Source: 2000 Census SF3 and 2006 American Communities Survey.

The biggest changes in vehicle availability between 2000 and 2006 were for households having 3 or more vehicles available, which increased by 24%.

## Vehicle Miles of Travel (VMT)

Weekday Vehicle Miles of Travel (VMT) for the 1983 definition of the MSA grew by an average annual rate of 2.4% between 2000 and 2006. This rate of growth was faster than the increase in population, employment and vehicle availability. As shown Figure 2, there was virtually no increase in regional VMT between 2005 and 2006. Analysis of the traffic volume data collected permanent count stations located inside the Capital Beltway showed declines in annual average daily traffic volumes between 2005 and 2006. Whether these declines are temporary ones related to the significant rise in gasoline prices in this period or the results of other factors influencing daily travel behavior will require more time and further analysis.

**Figure 3**



Source: Basic VMT data obtained from the District of Columbia Department of Transportation (DDOT), Maryland State Highway Administration (MDSHA), and the Virginia Department of Transportation (VDOT). Annual Average VMT data were factored by 1.05 to represent average weekday VMT.

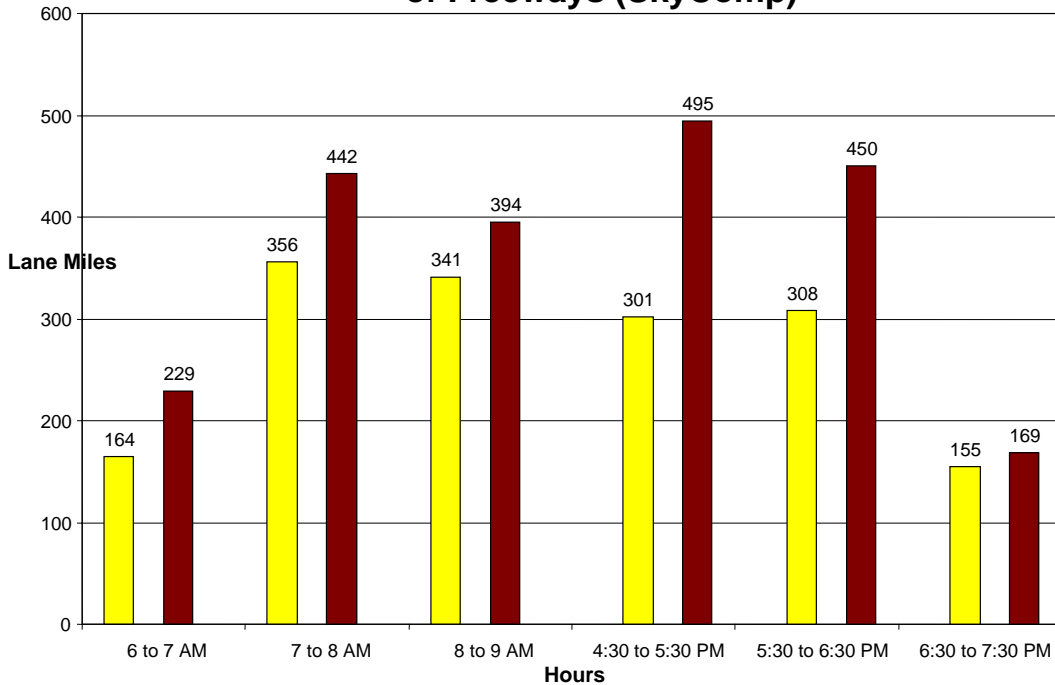
## Lane Miles of Congestion

Lane miles of congestion on the region's freeway system increased in the 2000 to 2006 period. Congestion on the region's freeways is monitored using periodic aerial surveys of

major segments of the region’s freeway system. The latest two aerial surveys were conducted in 2005 and 2002. As shown in Figure 3, lane miles of congestion on the region’s freeway system increased by about 25% in the AM peak hour and by more than 50% in the PM peak hour between 2002 and 2005.

**Figure 3**

**Lane Miles of Congestion  
2002 & 2005 Aerial Survey  
of Freeways (SkyComp)**



Source: SkyComp 2002 and 2005 Aerial Survey of Freeways

**Transit Ridership**

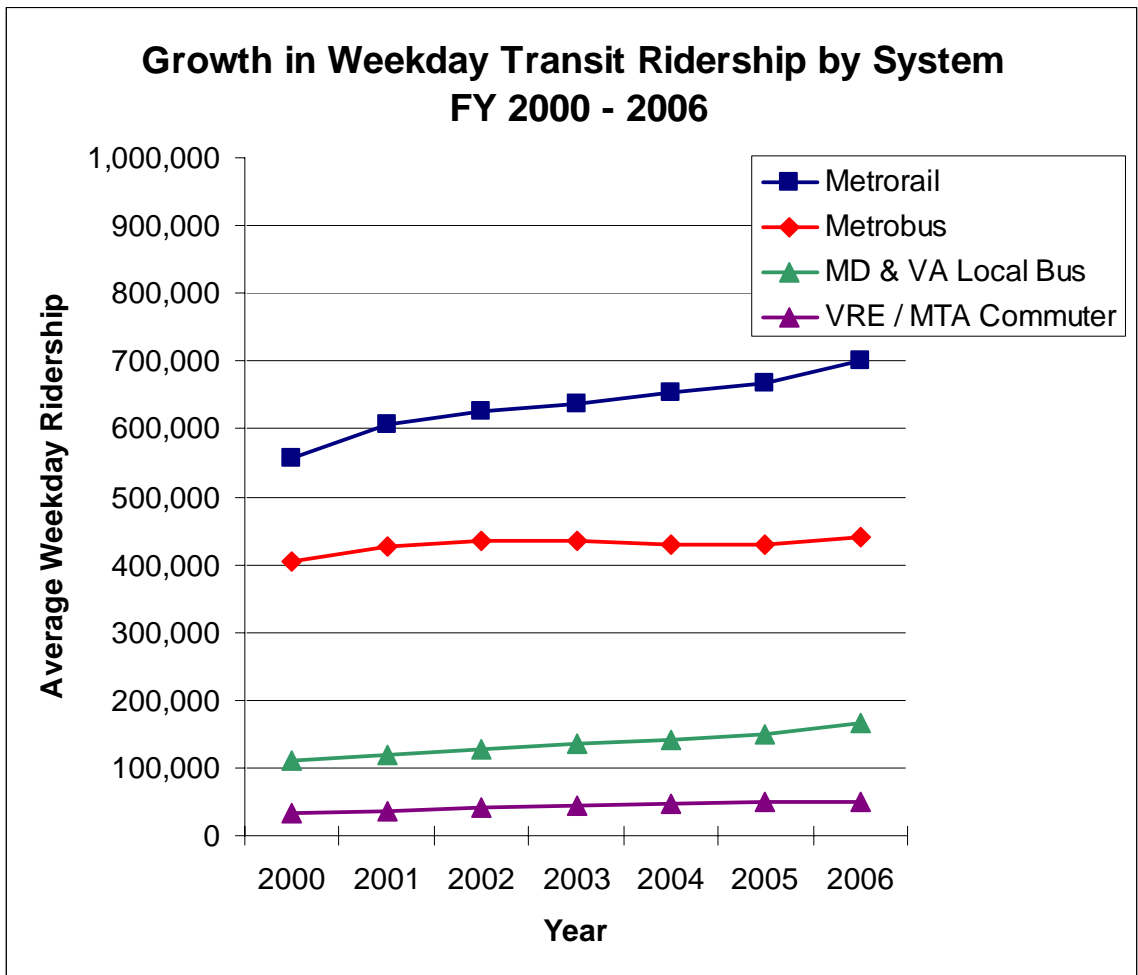
Average weekday transit ridership between 2000 and 2006 grew at an annual rate of 3.5%. This was a faster rate than the increase in regional population, employment, vehicle availability. It was also faster than the increase in regional weekday VMT in this period. This higher growth rate suggests a measurable modal shift from auto to transit for some daily trips. Some key factors responsible for this shift to transit include increased WMATA and local jurisdiction transit service, rising fuel costs, increased participation in employer-sponsored transit benefit programs, increased population growth in areas well served by transit and the turnaround in employment growth in the District of Columbia.

The greatest absolute increase in transit ridership was seen on Metrorail, as shown in Figure 4. Average weekday ridership on Metrorail increased from about 580,000

weekday trips in 2000 to more than 700,000 weekday trips in 2006. In this period, the Branch Avenue segment of the Metrorail system opened in January 2001, the New York Avenue Metrorail station on the Red Line opened in November 2004 and the Blue Line was extended to Largo in December 2004.

Unlinked weekday Metrobus trips increased from 415,000 trips (adjusted estimate) to 445,000 trips in 2006. Larger percentage increases in daily bus ridership were seen on local jurisdiction transit systems in Northern Virginia and the Maryland suburbs. Weekday ridership on local jurisdiction bus systems in Maryland and Virginia increased by almost 50% in this 2000 to 2006 period and ridership on VRE and MTA commuter rail and commuter bus lines increased by almost 60%.

**Figure 4**



Notes:

(1) Data Sources: WMATA, NVTC, MTA, National Transit Database

(2) Ridership data are for unlinked transit trips

(3) Metrobus Ridership figures obtained from WMATA staff were reduced by 15% for fiscal years from FY2000 to FY 2004. This adjustment was made to account the change in farebox methodology used to estimate Metrobus ridership beginning in FY2005.

Table 7 shows in the tremendous growth in transit ridership in the 2000 to 2006 period by transit system. WMATA Metrorail and Metrobus, Montgomery County Ride-On, and the Fairfax County Connector systems showed the greatest absolute increases and accounted for 85% of the total increase in ridership. Except for the ART system, the largest percentage increases were seen in the local systems in the Outer Suburbs with Loudoun County Transit ridership increasing at annual rate of 23%, PRTC ridership increasing at annual rate of 17%, Frederick County TransIT increasing at an annual rate of 15%, VRE commuter rail increasing at an annual rate of almost 11%. Ridership on TheBus system in Prince George's County and MTA DC Commuter Buses were also showing double digit annual growth rate of about 10%.

**Table 7**  
**Growth in Transit Ridership by System**  
**FY 2000 TO FY 2006**

<b>Transit System</b>	<b>FY2000</b>	<b>FY2006</b>	<b>Change FY '00-06</b>	<b>Percent Change FY '00-06</b>	<b>Av. Annual Percent Change</b>
WMATA - Metrorail	558,000	700,000	142,000	25%	3.9%
WMATA - Metrobus	403,750	441,000	37,250	9%	1.5%
<b>Total WMATA</b>	<b>961,750</b>	<b>1,141,000</b>	<b>179,250</b>	<b>19%</b>	<b>2.9%</b>
Ride-On	66,136	87,761	21,625	33%	4.8%
TheBus	6,557	11,906	5,349	82%	10.5%
TransIT	1,013	2,344	1,331	131%	15.0%
<b>Total Local - MD Bus</b>	<b>74,030</b>	<b>102,011</b>	<b>27,981</b>	<b>38%</b>	<b>5.5%</b>
MTA MARC Commuter Rail - DC	18,766	25,879	7,113	38%	5.5%
MTA Commuter Bus - DC	5,891	10,353	4,462	76%	9.9%
<b>MTA Commuter Rail &amp; Bus - DC</b>	<b>24,657</b>	<b>36,232</b>	<b>11,575</b>	<b>47%</b>	<b>6.6%</b>
ART	671	3,528	2,857	426%	31.9%
DASH	8,689	12,178	3,489	40%	5.8%
CUE	3,435	3,831	396	12%	1.8%
Fairfax Connector	20,294	33,154	12,860	63%	8.5%
Loudoun Co Transit	694	2,449	1,755	253%	23.4%
PRTC	3,756	9,611	5,855	156%	16.9%
<b>Total Local VA - Bus</b>	<b>37,540</b>	<b>64,751</b>	<b>27,211</b>	<b>72%</b>	<b>9.5%</b>
<b>VRE Commuter Rail</b>	<b>8,057</b>	<b>14,667</b>	<b>6,610</b>	<b>82%</b>	<b>10.5%</b>
<b>Total All Systems</b>	<b>1,106,034</b>	<b>1,358,661</b>	<b>252,627</b>	<b>23%</b>	<b>3.5%</b>

Notes:

(1) Data Sources: WMATA, National Transit Database, NVTC, MTA

(2) Ridership data are for unlinked transit trips

(3) Metrobus Ridership figures obtained from WMATA staff were reduced by 15% for fiscal years from FY2000 to FY 2004. This adjustment was made to account the change in farebox methodology used to estimate Metrobus ridership beginning in FY2005.

(4) MARC Commuter Rail - DC ridership figures assume that approximately 90% of total MARC passenger trips are to and from employment sites and other non-residential locations in the Washington DC-MD-VA-WV, MSA (2003).

(5) MTA Commuter Bus - DC ridership from MTA staff

(6) Where average weekday transit ridership figures were unavailable, estimates of average weekday ridership were calculated by applying known average weekday conversion factors to reported annual transit ridership totals.

## Commuting to Work

The share of commuting travel by single occupancy vehicles for the 2003 MSA definition of the region appears to have decreased between 2000 and 2006. The latest commuting data from the Census American Communities Survey (ACS) show the percent of workers driving alone to work to have decreased from 67.7% to 65.8% (Table 7). Similarly, the share of workers traveling to work by car or vanpool decreased from 13.4% to 11.6%. At same time the new ACS data show the percent of workers using transit to commute to work increasing from 11.0% in 2000 to 14.2% in 2006. These ACS data also show a slight, but significant increase in the number of workers reporting that they worked primarily from home.

**Table 8**

<b>Change in Commuting Mode 2000 - 2006</b>				
<b>Commuting Mode</b>	<b>2000</b>		<b>2006</b>	
	<b>Number of Workers</b>	<b>Percent of Workers</b>	<b>Number of Workers</b>	<b>Percent of Workers</b>
Drove alone	1,708,868	67.7%	1,823,063	65.8%
Car or Van Pooled	337,858	13.4%	320,835	11.6%
Transit	278,914	11.0%	392,962	14.2%
Bicycle	7,668	0.3%	11,514	0.4%
Walked	76,473	3.0%	82,846	3.0%
Other Means	22,384	0.9%	28,417	1.0%
Worked at home	92,909	3.7%	112,582	4.1%
<b>Total Workers</b>	<b>2,525,074</b>	<b>100.0%</b>	<b>2,772,219</b>	<b>100.0%</b>

Source: 2000 Census SF3 and 2006 American Communities Survey. 2000 Census SF3 data for the 2003 MSA definition were aggregated from county-level to be geographical comparable to the commuting data from the 2006 ACS.

Although the worker commuting data from the 2006 ACS is based on a considerably smaller sample size than the 2000 Census SF3 tabulation, the observed commuting mode changes between 2000 and 2006 are entirely consistent with the other travel trend data included in this report. Transit ridership statistics obtained from WMATA and local jurisdiction transit systems show the growth in weekday transit ridership in the 2000 to 2006 period increasing at an annual rate 38% faster than that of weekday VMT. With the current sharp rise in the price of gasoline, it appears likely that the growth in transit

ridership will continue, at least in the short term. Nonetheless, in the longer term the sizeable and rapid increases in population and employment growth in the outer suburbs is likely to mean increased auto travel and more congestion on the regional highway system in this subarea of the region.

## **Major Findings and Conclusions**

The metropolitan Washington region has been one of the nation's fastest growing metropolitan areas for the last several decades and the geographic extent of what is now considered to be part of metropolitan area by the U.S Census Bureau and other federal statistical agencies has increased considerably. The Washington-Arlington-Alexandria DC-MD-VA-WV Metropolitan Statistical Area (MSA) designated by the Federal Office of Management and Budget (OMB) in 2003 includes a total of 22 counties and cities that cover a geographic area of 5,600 square miles.

The high rate of population growth observed in the region in the 1990s has continued into the first decade of the new millennium. The locus of this new growth has now shifted from the Inner Suburbs to the Outer Suburbs. Whereas in the 1990s the greatest amount of population increase was seen in the beltway jurisdictions of Fairfax, Montgomery and Prince George's Counties, the greatest amount of population increase in this decade so far have been Outer Suburban jurisdictions of Loudoun, Prince William, and Stafford Counties in Virginia and Frederick, Charles, and Calvert Counties in Maryland. Loudoun and Prince William Counties have already added more population in the first six years of this decade than they did in the entire ten years of the previous decade.

If the annual growth rates observed in the Outer Suburbs from 2000 to 2006 continue through the remainder of this decade, the Outer Suburbs will have added almost 500,000 people between 2000 and 2010. This would be significantly more than the 340,000 added in the Inner Suburbs between 1990 and 2000.

Population growth in the "Outer Ring" jurisdictions, the tier of Washington MSA (2003) jurisdictions to the south and west of Northern Virginia's Outer Suburbs, grew at an annual rate twice the regional average, but less than that of the Outer Suburbs. Though significant, the total population increase in these Outer Ring jurisdictions pales in comparison with that in the Outer Suburbs. Population increase in the Outer Ring jurisdictions was less than one-fifth the increase observed in the Outer Suburbs in the 2000 to 2006 period.

Another significant change population in the 2000 to 2006 period relative to the prior decade was that the region's Central Area jurisdictions of the District of Columbia, Arlington and Alexandria were growing at a rate just slightly less than that of the Inner Suburbs. Most significant, was the turnaround in population growth in the District of Columbia. While the District lost population in the decade of 1990 to 2000, it showed a net gain of more than 10,000 residents between 2000 and 2006. Arlington County and the



City of Alexandria continued to grow at about same rates they experienced in the previous decade.

Similar to the geographic pattern of population growth, the greatest increases in the civilian labor force in the 2000 to 2006 period were seen in the Outer Suburbs followed by increases in the Inner Suburbs. Analysis of the civilian labor force data suggests that most of the population increase in the Central Area jurisdictions, especially in Arlington and Alexandria, is likely composed of smaller size households of working age persons with no or few children while the population increase in the Outer Ring jurisdictions is likely to be composed of larger size households with one or several children.

The rate of growth in wage and salary employment in the 2000 to 2006 period was slightly less than that of population growth. Again, the greatest changes from the previous decade were seen in the Outer Suburbs. Whereas in the 1990 to 2000 period the Outer suburbs accounted for only about a third of the increase in regional wage and salary employment, in the 2000 to 2006 period almost one-half of the increase in this employment occurred in the outer suburbs.

Also significant in the 2000 to 2006 period was turnaround in employment growth in the District of Columbia. In the 1990s the District lost almost 34,000 wage and salary jobs because of the downsizing of the Federal workforce in this period. Since 2000, the District has more than offset this loss in Federal employment with an increase of almost 35,000 private sector wage and salary jobs and is now growing at average annual rate equivalent to that of the inner suburbs.

The latest Census statistics on vehicle availability show household vehicle availability growing the same rate as total population increase. This is a change from the 1990s when the number of household vehicles in the region was increasing faster than total population. This suggests that the region may have reached a reach a saturation point where most households who can afford to own automobiles have the number of vehicles that they want. Still, about 10% of the region's households do not have a vehicle either by choice or the fact that they cannot afford one.

Weekday Vehicle Miles of Travel (VMT) in the region grew by an average annual rate of 2.4% between 2000 and 2006. This was a faster rate than the increase in population, employment and vehicle availability. Nonetheless, there was virtually no increase in regional VMT between 2005 and 2006. Determination of whether this leveling off in VMT growth is a temporary one related to the significant rise in gasoline prices or the results of other factors influencing daily travel behavior will require more time and further analysis.

The latest two aerial surveys were conducted in 2005 and 2002 show lane miles of congestion on the region's freeway system increasing by about 25% in the AM peak hour and by more than 50% in the PM peak hour between 2002 and 2005.

Transit ridership statistics obtained from WMATA and local jurisdiction transit systems show the growth in weekday transit ridership in the 2000 to 2006 period increasing at a rate 38% faster than that of weekday VMT. The differential in these two rates of growth rate suggests a measurable modal shift from auto to transit for some daily trips in this time period.

The latest commuting statistics from the Census appear to confirm this shift from auto to transit. These statistics show the percent of workers driving alone to work decreasing from 68% to 66%, the percent of workers traveling to work by car or vanpool decreasing from 13% to 12% and the percent of workers using transit for their commute increasing from 11% 14% between 2000 and 2006.

Key factors responsible for the shift from auto to transit include increased WMATA and local jurisdiction transit service, rising fuel costs, increased participation in employer-sponsored transit benefit programs, increased population growth in areas well served by transit and the turnaround in employment growth in the District of Columbia.

With the current sharp rise in the price of gasoline, it appears likely that the growth in transit ridership will continue, at least in the short term. Nonetheless, in the longer term the sizeable and rapid increases in population and employment growth in the outer suburbs is likely to mean increased auto travel and more congestion on the regional highway system in this subarea of the region.