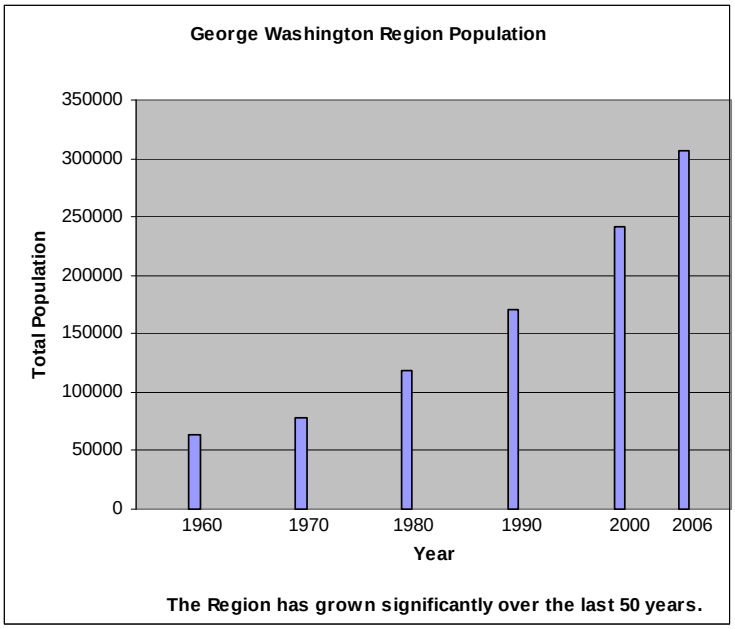
CHAPTER 2: DEMOGRAPHIC TRENDS AND PROJECTIONS

This Chapter is based on research and analysis completed by the George Washington Regional Commission, the Virginia Employment Commission (VEC), Weldon Cooper and others and provides the current and projected demographic makeup of the Region.

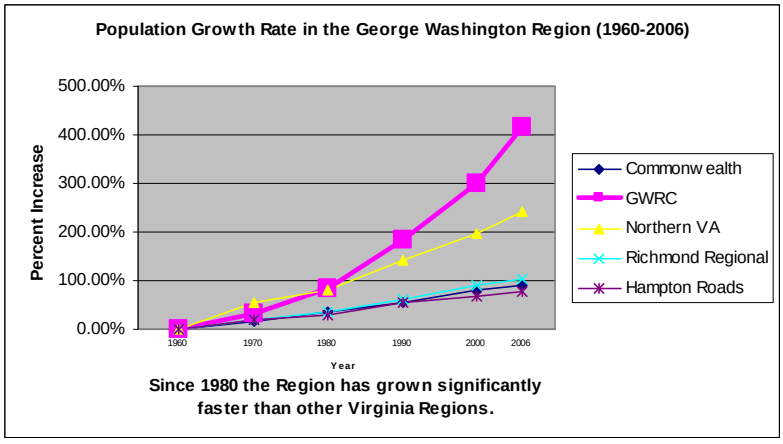
DEMOGRAPHIC TRENDS

Figure 1



In 1960, the GW Region had a population of 64,302, ranked as the eighteenth (out of 21 PDCs) largest in the Commonwealth. Over the last 45 years, the Region has experienced significant rapid population growth (with an annual compound growth rate of 3.5%), rising to an estimated 309,483 persons in 2006 and becoming the 4th largest region in Virginia with the highest growth rate. Please refer to **Figures 1 and 2** above and below for a visual representation of the growth since 1960 by population number and by percentage.

Figure 2



The GW Region's population has grown by over 400% from 1960 to 2006. In 1980, the GW Region's growth rate surpassed Northern Virginia as the fastest growing region in Virginia. As the Washington DC-Northern Virginia metropolitan area (to the north) and the Richmond-Petersburg metropolitan area (to the south) have both grown over this period, the GW Region's central location midway between these areas and proximity to expanding job opportunities has encouraged significant in-migration of new residents, both to fill local jobs as well as seeking affordable housing and rural and lower-density suburban lifestyles and "easy"

commuting access to the larger job markets north and south of the Region. Please refer to **Map 2** on the following page to see the 2006 population distribution in the GW Region.

Evidence of the significance of net migration as a factor driving the growth of the Region can be seen in **Tables 2.1** and **2.2** on the following pages. Nearly 78 percent of the growth of the Region's population between 2000 and 2006 has been due to net migration increase which is the difference between the number of persons moving into the Region and the number moving out of the Region.

The statewide importance of this flow can be seen in the Region's share of the statewide population gains from net migration so far this decade, with the Region capturing over 42 percent of the State's overall population increase due to net migration (compared to the Region's 12 percent share of State population growth). Over this same period, the GW Region had the highest net migration rate of any region in the Commonwealth (see **Table 2.2**), followed by Planning Districts 9 and 7, respectively. All three regions are experiencing rapid growth as a result of their proximity to the booming Northern Virginia economy with more affordable housing opportunities available in these outlying regions.

Table 2.1

Cumulative Estimates of the Components of Population Change for GW Region and Virginia: April 1, 2000 to July 1, 2006

Geographic Area	Total Population Change*	Natural Increase			Net Migration			
		Total	Births	Deaths	Total	Net International Migration	Net Internal Migration	Statewide Ranking
Virginia	**563,854**	**276,039**	**633,794**	**357,755**	**276,292**	**151,748**	**124,544**	
Caroline County	4,610	516	1,873	1,357	4,184	52	4,132	21
King George County	4,977	939	1,739	800	4,081	-20	4,101	23
Fredericksburg city	1,994	1,046	2,386	1,340	1,040	295	745	53
Spotsylvania County	29,136	6,194	9,995	3,801	22,994	326	22,668	3
Stafford County	27,724	6,682	9,647	2,965	21,045	-127	21,172	5
George Washington Region (PD 16)	**68,441**	**15,377**	**25,640**	**10,263**	**53,344**	**526**	**52,818**	
Percent of Regional Total Change		**22.47%**			**77.94%**			
Regional Share of Statewide Change	12.14%	5.57%	4.05%	2.87%	19.31%	0.35%	**42.41%**	

Source: US Census Bureau, Population Estimates Branch, "Cumulative Components of Population Change by County, 2000-2006".

2006 POPULATION DENSITY IN THE GW REGION

Prince William County
Fauquier County
MCB Quantico
MARYLAND
Culpeper County
STAFFORD COUNTY
Orange County
KING GEORGE COUNTY
Westmoreland County
SPOTSYLVANIA COUNTY
Fort A.P. Hill
Essex County
CAROLINE COUNTY
Louisa County
King & Queen County
Hanover County
King William County

CITY OF FREDERICKSBURG

GEORGE WASHINGTON REGION
2035 LONG RANGE TRANSPORTATION PLAN

MAP 2

GEORGE WASHINGTON REGIONAL COMMISSION

FAMPO
Fredericksburg Area Metropolitan Planning Organization

Legend

- County Boundaries
- Commuter Lots
- VRE Stations
- Active Rail Lines

Population / SQMI

- 0 - 999
- 1000 - 1999
- 2000 - 2999
- 3000 - 3999
- 4000 - 46042
- State Parks
- Military Installations
- Fredericksburg & Spotsylvania NMP

Miles
0 4 8 16 24 32

Table 2.2

Population Estimates for Virginia's Planning District Commissions with Highest Net Migration Rates, Final 2005 & Provisional 2006

Planning Districts	April 1, 2000 Census*	Provisional 2006 (July 1 Estimates)	April 1, 2000 - July 1, 2006					
			Numerical			Percentages		
			Change	Due to natural increase	Due to net migration	Change (%)	Due to natural increase	Due to net migration
16 GWRC	**241,044**	**307,003**	**65,959**	**15,270**	**50,689**	**27.4**	**6.3**	**21.0**
Rappahannock-Rapidan (PDC-9)	134,785	160,833	26,048	3,596	22,451	19.3	2.7	**16.7**
N Shenandoah Valley Reg Comm. (PDC-7)	185,282	209,846	24,564	4,819	19,745	13.3	2.6	**10.7**
Thomas Jefferson (PDC-10)	199,648	218,706	19,058	5,789	13,268	9.5	2.9	**6.6**
Northern Neck (PDC-17)	49,353	51,163	1,810	-1,331	3,140	3.7	-2.7	**6.4**
Northern Virginia Regional Comm. (PDC-8)	1,815,197	2,066,363	251,166	145,110	106,056	13.8	8.0	**5.8**
Richmond Regional (PDC-15)	865,941	937,780	71,839	30,103	41,736	8.3	3.5	**4.8**
Piedmont (PDC-14)	97,102	101,358	4,256	-364	4,621	4.4	-0.4	**4.8**
Middle Peninsula (PDC-18)	83,684	87,755	4,071	103	3,968	4.9	0.1	**4.7**
Central Shenandoah (PDC-6)	258,763	272,529	13,766	4,175	9,591	5.3	1.6	**3.7**

Source: University of Virginia, Weldon Cooper Center for Public Service, "Estimates of Population for Virginia & its Localities, Final 2005 & Provisional 2006", January 2007.

Regional Population Trends by Age and Gender

Those age groups in the Region that have experienced an increase greater than 12.1 percent represent age groups in the Region growing faster than the State average growth for that age group. Most notably, the Region experienced significant growth since 2000 in school-age and young adult populations and the oldest (age 85 and over) population cohort.

Within the GW Region, a comparison of the percent female population by age group for 2000 and 2006 shows a consistent decline in the female composition of the Region's population across all age groups. This pattern, also observed in the State data, is consistent with the national trend of higher survival rates for the male population; however, the trend of declining female percentages in each age group is much more pronounced in the GW regional population.

In 2000, the "baby-boom" population (persons born between 1946 and 1964, or ages 36 – 54 years in 2000), represented 30.2 percent of the Region's total population. The aging of the "baby-boom" population has been anticipated to significantly impact public budgets through the dramatic increase in beneficiaries for public health care insurance (Medicare) and social security programs over the next 20 years. Between 2000 and 2035, the percentage of the GW Region's population age 65 and over will shift from 9.2 percent to 16.7 percent of the population. While significant, this is less of a change in the age structure of the Region than expected statewide and reflects the Region's relatively younger working age population relative to other areas of the state, where the senior population is projected to grow from 15 percent levels to nearly 25 percent or more.

Regional Population Trends by Race and Hispanic Status

Estimates of population by race and Hispanic status indicate significant growth in the racial and ethnic diversity of the Region's population. While the Region's total population has grown at more than double the State's annual rate of growth (i.e. 2.27% vs. 1.08%), the changes in the growth of the Asian and Hispanic population of the Region still exceeds but more closely mirrors statewide growth of these groups (see **Table 2.3** below).

Table 2.3

Trends in Race/Ethnicity of Regional and State Population, 2000 – 2035

AREA	Racial & Ethnic Category	Census	Census Bureau Estimate	Absolute Change	VEC Population Projections (2007)		GWRC Projection	Percent Change (%)	Annual Growth (%)
		2000	2006	2000-2006	2020	2030	2035	2006-2035	2006-2035
GW Region	White, Not Hispanic	189,629	234,693	45,064	328,199	391,264	417,851	78.04	2.01
	Black, Not Hispanic	37,061	52,567	15,506	77,442	100,554	110,830	110.84	2.61
	American Indian or Alaska Native, Not Hispanic	3,588	1,416	-2,172	1,765	1,987	2,107	48.76	1.38
	Asian & Pacific Islander, Not Hispanic	3,279	6,440	3,161	11,618	17,780	20,681	221.14	4.11
	Total Hispanic or Latino	7,487	14,367	6,880	24,615	36,015	41,228	186.95	3.70
	Total Population	**241,044**	**309,483**	**68,439**	**443,639**	**547,600**	**592,696**	**91.51**	**2.27**
Virginia	White, Not Hispanic	4,881,743	5,195,393	313,649	5,717,896	5,954,509	6,104,812	17.50	0.56
	Black, Not Hispanic	1,325,568	1,507,457	181,889	1,848,959	2,069,710	2,179,874	44.61	1.28
	American Indian or Alaska Native, Not Hispanic	20,186	21,982	1,796	23,315	22,626	22,625	2.93	0.10
	Asian & Pacific Islander, Not Hispanic	252,635	354,941	102,305	583,291	782,629	865,968	143.98	3.12
	Total Hispanic or Latino	329,540	450,241	120,701	743,935	995,545	1,105,357	145.50	3.15
	Total Population	**7,078,515**	**7,530,013**	**451,498**	**8,917,396**	**9,825,019**	**10,278,636**	**36.50**	**1.08**

Source: Virginia Employment Commission (VEC), May 2007, "Final Local Population Projections, 2010-2030"

Regional Group Quarter Population Trends

Due to the diversity of the facilities that shelter the group quarters population (e.g. college dormitories, military barracks, hospitals, long-term care facilities, jails and correctional facilities, etc.), this population does not necessarily grow in direct proportion to the growth in the general population (see **Table 2.4** on the following page). Several future development announcements have occurred, however, which provide reasonable evidence of expected growth in military and federal civilian barracks in Stafford and Caroline counties related to Base Closure and Realignment (BRAC) expansions at Quantico and Fort A.P. Hill, respectively, as well as the announced opening of a substance abuse center (i.e. Remuda Ranch) in Caroline County.

Jail and correctional facility inmate populations generally grow in proportion to the total population (particularly if adolescent and young adult cohorts are growing steadily), although capacity constraints of existing facilities may require expansion or relocation of future growth to other facilities. Finally, some expansion of long-term care facility populations in the counties of Stafford and Spotsylvania and the City of Fredericksburg is anticipated with the aging of the baby-boom population in these communities over the forecast period.

Table 2.4

Group Quarters Population Estimates and Projections

Jurisdiction	2000	2006	2009	2010	2015	2020	2025	2030	2035
Caroline Co	578	1,329	1,641	1,746	1,907	2,061	2,226	2,401	2,580
King George Co	355	355	366	369	365	365	365	365	365
Spotsylvania Co	554	923	1,068	1,116	1,252	1,388	1,528	1,667	1,793
Stafford Co	1,494	2,893	2,982	3,011	3,250	3,342	3,513	3,683	3,841
City of Fredericksburg	2,319	2,583	2,590	2,592	2,601	2,610	2,621	2,632	2,641
GWRC	**5,300**	**8,083**	**8,647**	**8,834**	**9,376**	**9,766**	**10,252**	**10,748**	**11,219**

Sources: US Bureau of Census, 2000 Census of Population and Housing, STF-1, Table P37 "Group Quarters Population by Group Quarters Type"; Weldon Cooper Center for Public Service, "Local Input Data for 2006 Population Estimates", GWRC, "2035 CLRP Socio-Economic Data Forecast".

Regional Household Trends

A household represents each occupied independent living unit, regardless of the number of persons residing in the unit and without regard to the existence of a family (by blood or marriage) relationship among the members of the household. A household unit may be as small as one person or as many as a dozen or more.

Between 2000 and 2006, an estimated 24,974 additional households were added in the Region, with another 12,698 households projected to be added by 2010, representing a 45 percent increase over this decade. With strong economic growth projected in the Washington DC-Northern Virginia economy for years to come, continued household growth is projected for the GWRC region, reaching 212,405 households by 2035. Over the forecast period, approximately 103,700 households are projected to be added throughout the Region (see **Table 2.5**), an increase of about 9,000 households more than the total number of households (94,570) that existed in Prince William County in 2000.

Table 2.5

Historic and Projected Trends in Regional Households, 2000 - 2035							
Jurisdiction	**2000**	**2006**	**2010**	**2020**	**2025**	**2030**	**2035**
Caroline Co	8,021	9,004	9,940	12,159	13,315	14,470	15,519
King George Co	6,091	7,777	8,674	11,209	12,621	14,032	15,333
Spotsylvania Co	31,308	41,462*	46,445	61,134	68,681	76,228	83,024
Stafford Co	30,187	42,263*	47,523	63,204	71,254	79,304	86,743
City of Fredericksburg	8,102	8,176	8,769	9,925	10,593	11,262	11,786
GWRC	**83,709**	**108,683**	**121,351**	**157,632**	**176,464**	**195,296**	**212,405**

Source: US Bureau of Census, 2000 Census of Population and Housing, STF-1, Table P15; GWRC, 2006 Base Year Estimates for 2035 LRP, Forecast Data for 2035 LRP.
* 2006 ACS estimate of Spotsylvania Co households = 41,381 2006 ACS estimate of Stafford Co households = 39,741.

Average Household Size Trends

Nationally, the trend of declining average household size has been observed for at least the last 35 years. This trend has been explained as a result of a host of factors, including higher divorce rates, deferred incidence of marriage (thus maintaining individual households longer), increased life expectancy (resulting in more single occupant households among the elderly), reduced incidence of domestic service help living under the same roof, and growing economic affluence and lower mortgage rates (allowing single individuals and single parents to qualify for and maintain a separate household). Comparisons of average household size data over time demonstrate that this national trend has been occurring in the GW Region as well (see **Table 2.6**).

Table 2.6

Trends in Average Household Size by Locality				
Jurisdiction	**1990 Census**	**2000 Census**	**2006 ACS Estimate**	**2007 Claritas Estimate**
Caroline Co	2.86	2.69	NA	2.61
King George Co	2.79	2.70	NA	2.66
Spotsylvania Co	3.01	2.87	2.88	2.81
Stafford Co	3.05	3.01	2.97	3.00
City of Fredericksburg	2.24	2.09	NA	2.03

Source: US Census Bureau, 1990, 2000 Census of Population and Housing, 2006 American Community Survey; Claritas, Inc. "SiteFacts", 2007.

2.2 DEMOGRAPHIC PROJECTIONS

According to population forecasts compiled from Weldon Cooper, the Commonwealth of Virginia and the George Washington Regional Commission (GWRC), the GW Region will continue to experience dramatic growth and development through 2035. The population projections indicate that the Regional population will approximately double to 600,000 residents by 2035 from our current population of 310,000 persons. Moreover, the Region will continue to be the fastest growing Region in Virginia. Please refer to **Figures 3 and 4** below. **Map 3** on the following page shows the projected population distribution of the GW Region in 2035 in accordance with existing Comprehensive Plans, other local government ordinances and policies.

Figure 3

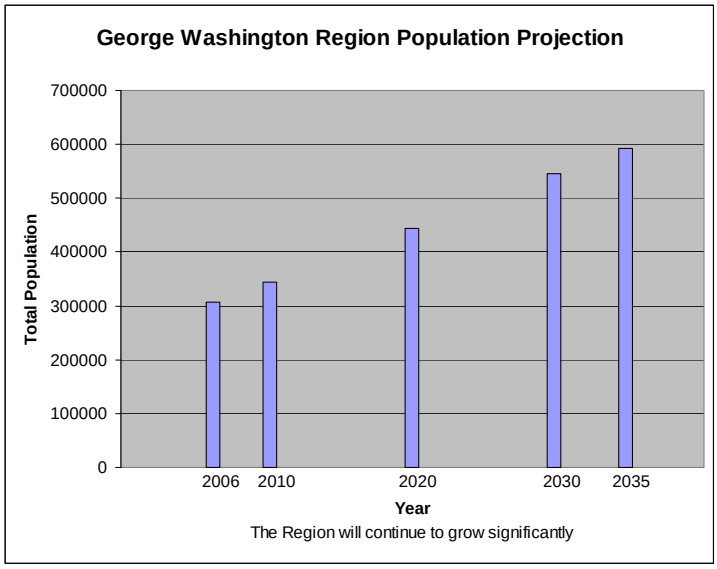
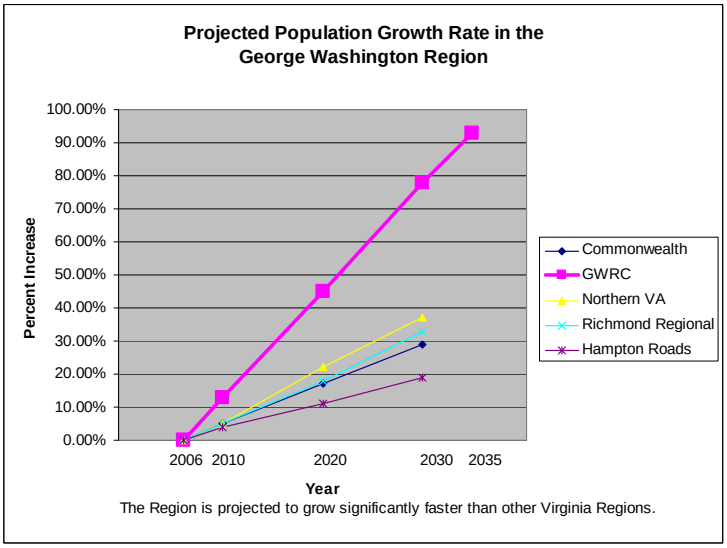


Figure 4



2035 POPULATION DENSITY FORECAST IN THE GW REGION

Prince William County
Fauquier County
MCB Quantico
MARYLAND
Culpeper County
STAFFORD COUNTY
Orange County
KING GEORGE COUNTY
Westmoreland County
SPOTSYLVANIA COUNTY
Fort A.P. Hill
Essex County
CAROLINE COUNTY
Louisa County
Hanover County
King & Queen County
King William County

CITY OF FREDERICKSBURG

GEORGE WASHINGTON REGION
2035 LONG RANGE TRANSPORTATION PLAN

MAP 3

GEORGE WASHINGTON REGIONAL COMMISSION

FAMPO
Fredericksburg Area Metropolitan Planning Organization

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- State Parks
- Military Installations
- Fredericksburg & Spotsylvania NMP

0 4 8 16 24 32 Miles