

RTMENT OF COMMUNITY PLANNING, HOUSING & DEVELOPMENT  
ING DIVISION DEPARTMENT OF COMMUNITY PLANNING, HOUSING & DEVELOPMENT  
COMMUNITY PLANNING, HOUSING & DEVELOPMENT  
ING, HOUSING & DEVELOPMENT PLANNING DIVISION  
PLANNING DIVISION DEPARTMENT OF COMMUNITY PLANNING, HOUSING & DEVELOPMENT

# RACE AND ETHNICITY

2005-2009 AMERICAN COMMUNITY SURVEY

March 2011



ARLINGTON  
VIRGINIA

Department of Community Planning, Housing and Development  
Planning Division  
Planning Research and Analysis Team

# ***Arlington Vision***

**“Arlington will be a diverse and inclusive world-class urban community with secure, attractive residential and commercial neighborhoods where people unite to form a caring, learning, participating, sustainable community in which each person is important.”**

**— Arlington County Board**

# 2005-2009 ACS

This report, *Race and Ethnicity, 2005-2009 American Community Survey*, is the second in a series to examine the 2005-2009 American Community Survey (ACS) 5-Year Estimates for Arlington County, Virginia. This report compares the estimates of the 5-Year ACS to the 2000 Census long form survey. Other report topics in this series include: age, households and families, income, employment, poverty, housing, language, commuting, and education.

The ACS is an annual survey, administered by the U.S. Census Bureau, that samples 3 million residential addresses throughout the United States. It replaces the long-form survey previously used in the decennial census. The 2005-2009 ACS is not an average of five years nor 60 months, rather the data collected are aggregated and spread evenly across the entire period represented without over-representing any particular month or year.

## Availability

The ACS provides time period estimates on population characteristics that were collected over one, three, and five years. Figure 1 shows the collection dates for each of the published ACS data products. The data produced in the one-year estimate are most current to the year of collection. However, the 5-year estimate provides data that are not as current but more precise and reliable, due to a larger sample size.

Also shown in Figure 1, each period estimate is only published for areas with minimum population requirements. For example, the one-year estimate provides data annually for city/county geographic areas with populations of at least 65,000. The 2005-2009 ACS 5-year estimate, released in December 2010, is the first set of ACS data released at the Census tract and block group geographic level since the 2000 Census.

**Figure 1: ACS Published Data**

ACS Estimate	Data Collected	Published for Areas
2009 ACS (1-Year)	1/1/2009-12/31/2009	Populations 65,000+
2009 ACS (3-Year)	1/1/2007-12/31/2009	Populations 20,000+
2009 ACS (5-Year)	1/1/2005-12/31/2009	Almost any size

## Sample Size

While the ACS replaces the decennial census long form, it is administered to a much smaller sample of the population. The 2005-2009 ACS 5-Year Estimate, data used for this and subsequent topic reports, sampled 12,285 individuals out of an estimated 206,405 Arlington residents. This sample size represents about 5.95 percent of Arlington's population. The sample size for the 2000 Census long form was more than double the ACS sample at 12.8 percent.

## Margin of Error and Coefficients of Variation

Since the period estimates are based on a sample of the population, there is a margin of error (MOE) associated with each estimate. The MOE provides information on how much sampling error is associated with each estimate. A larger MOE indicates a less reliable estimate, relative to the size of the estimate. Since estimates vary, it can be difficult to decipher whether an estimate is reliable using the MOE.

Coefficients of variation (CV) are values that represent a percentage of variability and determine the reliability for an estimate. The CV is a ratio of the standard error to the estimated value. Estimates with lower CV are more reliable. For this series of reports, the CV will be used to determine if the estimates are reliable. Estimates with CV values below 5.00 are considered to be very reliable. For this and subsequent topic reports, estimates with CV values between 5.00 and 15.00 are considered slightly less reliable. Estimates with CV values higher than 15.00 are not considered reliable.

## Significance Testing

Significance testing is important for determining whether the difference between the 2000 Census and 2005-2009 ACS 5-Year estimates are likely due to random chance (sampling error) or likely represent a true difference that exists in the population as a whole. This report identifies the statistical significance of the change in the estimates at a 90 percent confidence level. The U.S. Census Bureau uses standards set by the U.S. Office of Management and Budget for the categories of race and ethnicity listed on the survey

# RACE

## 2000 Decennial Census and 2005-2009 American Community Survey

The U.S. Census Bureau uses standards set by the U.S. Office of Management and Budget for the categories of race and ethnicity listed on the survey form. Race is self-identifying, meaning each person identifies the race they consider themselves to be. The ACS questionnaire reflects a social definition of race and includes national origin or socio-cultural groups.

According to the 2005-2009 ACS 5-Year Estimate, the majority of Arlington's population is non-Hispanic or Latino at 83.3 percent of the total population. Of the non-Hispanic or Latino population, the majority are White at 64.0 percent, as Figure 2 below shows. Since 2000, the White population has increased by 15.2 percent, representing 17,405 people. This change was determined to be statistically significant.

The population of Black/African Americans, Other/Multi-Racial and those of Hispanic or Latino origin,

decreased since 2000. However, these changes were determined not to be statistically significant, meaning that the difference is likely due to sampling error and does not reflect the true difference. Nonetheless, the estimates for 2005-2009 ACS are considered reliable due to low coefficients of variation.

The 2005-2009 ACS reports that 16,527 Arlington residents identify themselves as Black/African American population, representing 8.0 percent of the total population. Another 6,033 residents identify themselves as Other/Multi-Racial.

Across all races, those residents from Hispanic or Latino Origin represent an estimated 16.7 percent, 35,212 persons, of the total population. The next page looks at the distribution of races among those of Hispanic or Latino Origin for 2000 and 2005-2009.

Figure 2: Race and Ethnicity

	Census 2000		2005-2009 ACS			Change		Statistical Significance
	Persons	Percent	Persons	Percent	CV	Persons	Percent	
<b>Not Hispanic or Latino</b>	154,241	81.4%	171,921	83.3%	(0.4)	17,680	11.5%	YES
White	114,696	60.5%	132,101	64.0%	(0.2)	17,405	15.2%	YES
Black/African American	17,344	9.2%	16,527	8.0%	(1.7)	-817	-4.7%	NO
Asian/Pacific Islander	15,851	8.4%	17,260	8.4%	(1.2)	1,409	8.9%	YES
Other/Multi-Racial	6,350	3.4%	6,033	2.9%	(7.3)	-317	-5.0%	NO
<b>Hispanic or Latino</b>	35,212	18.6%	34,484	16.7%	(3.7)	-728	-2.1%	NO
<b>Total</b>	<b>189,453</b>		<b>206,405</b>			<b>16,952</b>	<b>8.9%</b>	

Coefficient of Variation (CV) = Percent of Variability

Reliable = CV < 5.00

Less Reliable = 5.00 < CV < 15.00

Not Reliable = CV > 15.00

# ETHNICITY (HISPANIC/LATINO ORIGIN)

2000 Decennial Census and 2005-2009 American Community Survey

In terms of ethnicity, the ACS collects data on Hispanic or Latino Origin. According to the U.S. Census Bureau, origin can be viewed as heritage, nationality group, lineage, or country of birth of the person or the person's parents or ancestors before their arrival in the United States. Data collected on Hispanic Origin are used in a variety of programs and is essential for policy decisions. For example, these data are used to monitor and enforce equal employment opportunities under the Civil Rights Act.

About 34,500 or 16.7 percent of Arlington residents are of Hispanic or Latino origin. Figures 3 and 4 show the breakdown by race within this population for the 2000 Census and the 2005-2009 ACS. As the charts show, almost all residents of Hispanic or Latino origin consider themselves to be White or Other/Multi-Racial. According to the 2005-2009 ACS 54.9 percent of residents of Hispanic or Latino origin consider

themselves to be from another race or multi-racial. This is followed by 43.9 percent of the population considering themselves to be White and of Hispanic or Latino Origin. Both Other/Multi-racial and White estimates are considered reliable since the CV values are both at 5.2%.

Residents of Hispanic or Latino origin and of the Black or African American or Asian Pacific Islander races represent almost the same share of population at 0.6 and 0.7 percents. However, these estimates are not reliable, due to high CV values of 42.4 and 52.7.

There were minimal changes in the races of the Hispanic or Latino origin population from 2000 to 2005-2009. The decrease in the number of individuals considering themselves Black/African American and of Hispanic or Latino origin was the only change found to be statistically significant.

Figure 3: Census 2000 Hispanic or Latino Origin

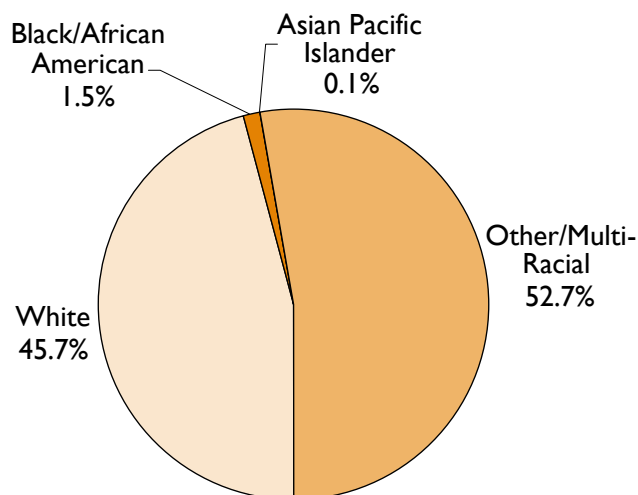
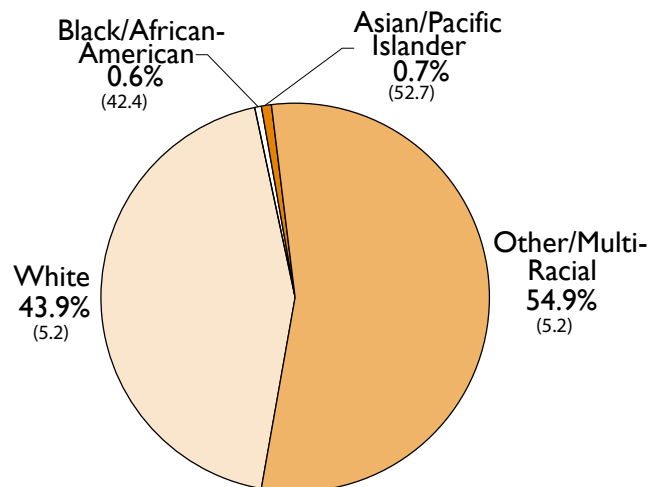


Figure 4: 2005-2009 ACS Hispanic or Latino Origin



Coefficient of Variation (CV) = Percent of Variability  
 Reliable = CV < 5.00    Less Reliable = 5.00 < CV < 15.00

Not Reliable = CV > 15.00

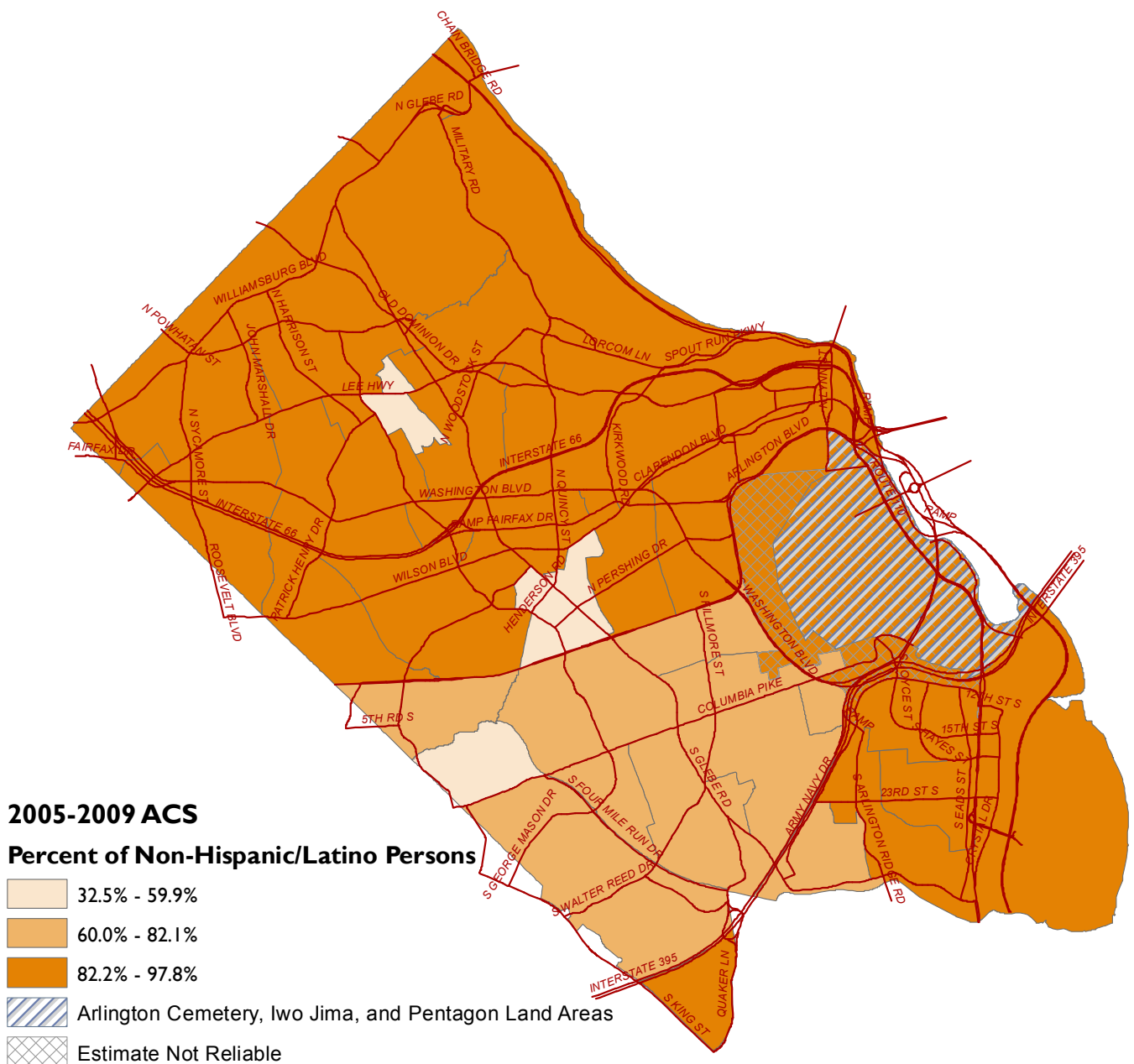
# NON-HISPANIC/LATINO (2005-2009)

2005-2009 American Community Survey

The map below shows the distribution of the non-Hispanic or Latino population estimates from the 2005-2009 ACS. An estimated 83.3 percent of Arlington's residents fall in this category. However, the Columbia Pike Corridor shows to have lower percentage of the

non-Hispanic or Latino population. The areas with the lowest percentages include Columbia Heights West (Columbia Pike), Buckingham (Arlington Blvd. and Glebe Road), and Langston-Brown (Lee Highway and George Mason Drive).

Figure 5: Census 2000 Hispanic or Latino Origin



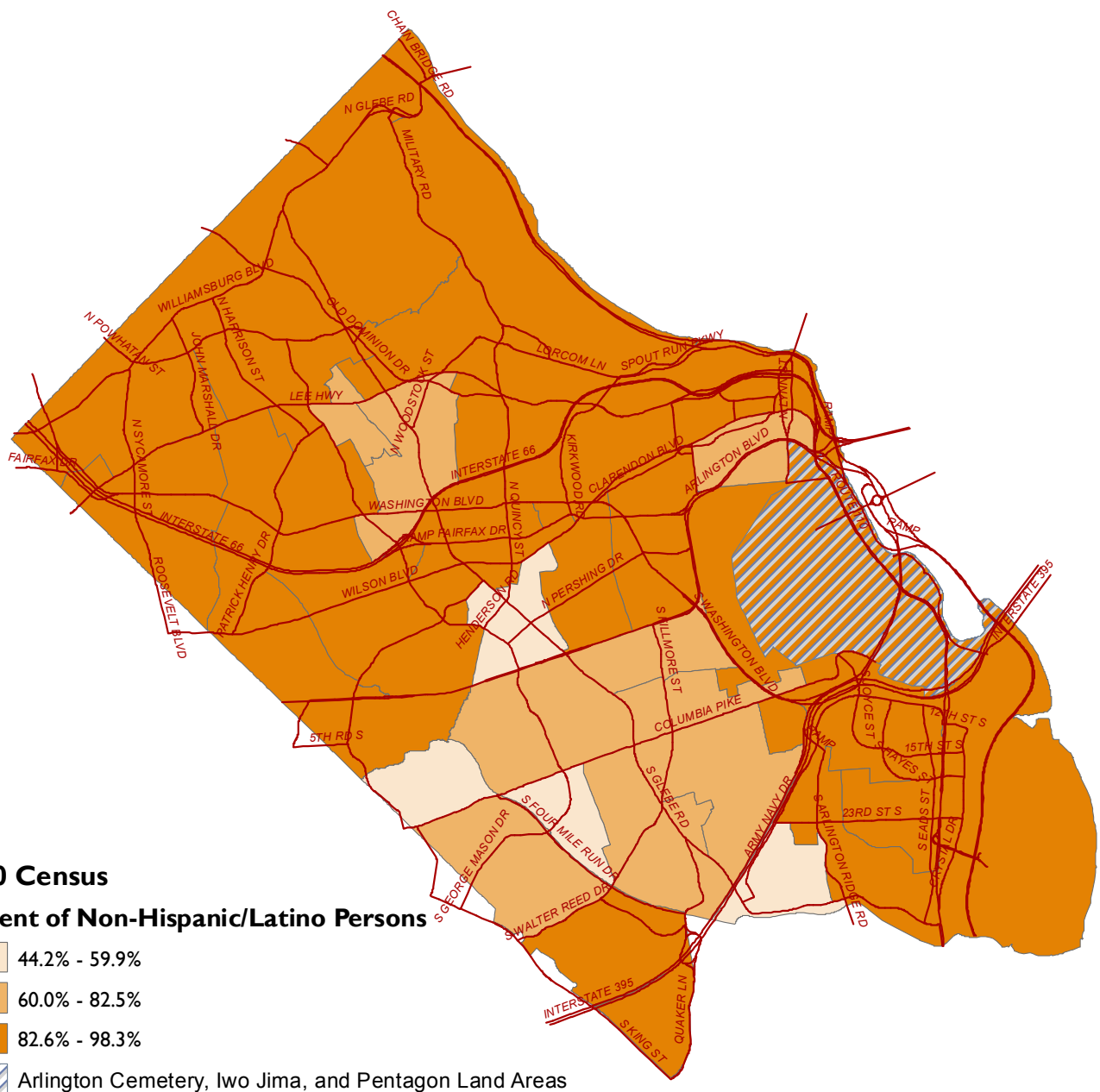
# Non-Hispanic/Latino (2000)

2000 Decennial Census

In 2000, 81.4 percent of Arlington residents were not of Hispanic or Latino origin. Notably, the Columbia Pike corridor has the lowest percentages of those not of Hispanic or Latino origin. These areas can also be found along Lee Highway and south of Rosslyn.

The areas with lowest percentages residents not of Hispanic or Latino origin are Columbia Heights West, Buckingham, part of Douglas Park civic association and Long Branch Creek civic association.

Figure 6: Census 2000 Hispanic or Latino Origin





# AGE

## 2000 Decennial Census and 2005-2009 American Community Survey

The racial and ethnic categories have been broken into the following three age cohorts: under age 18, age 18-64, and age 65 and above. Across all age groups, the majority of residents are White. However, there are higher percentage of those that are Other/Multi-Racial in the under the age of 18 cohort. The ACS estimates that 23.2 percent of those under the age of 18 are Other/Multi-Racial, which is more than double that for those age 18-64.

The same trend is true for those of Hispanic or Latino origin. According to the 2005-2009 ACS, 30.1 percent of residents under the age of 18 are of Hispanic or

Latino origin. For the age groups of 18-64 and 65 and above, Hispanic or Latino origin makes up 14.8 percent and 8.7 percent of each cohort's population.

Since 2000, the Black/African American residents under the age of 18 decreased by 30.4 percent. This is the only decrease across all age groups that is statistically significant. The White population increased for those under the age of 18 and age 18-64, by 11.5 percent and 14.4 percent. The Asian/Pacific Islander population showed an increase of 55.6 percent, for those age 65 and above. All three of these increases were determined to be statistically significant.

Figure 7: Census 2000 Hispanic or Latino Origin

UNDER AGE 18	2000 Census		2005-5009 ACS			Change		Statistical Significance
	Persons	Percent	Persons	Percent	CV	Persons	Percent	
Total (Any Ethnicity)	30,944	100.0%	33,433	100.0%	(2.22)	2,489	8.0%	YES
White	18,138	58.6%	20,227	60.5%	(2.05)	2,089	11.5%	YES
Black/African American	3,624	11.7%	2,524	7.5%	(6.26)	-1,100	-30.4%	YES
Asian/Pacific Islander	2,406	7.8%	2,912	8.7%	(9.66)	506	21.0%	NO
Other Race/Multi-Racial	6,776	21.9%	7,770	23.2%	(6.77)	994	14.7%	NO
Hispanic/Latino	9,147	29.6%	10,065	30.1%	***	918	10.0%	***

AGE 18-64	2000 Census		2005-5009 ACS			Change		Statistical Significance
	Persons	Percent	Persons	Percent	CV	Persons	Percent	
Total (Any Ethnicity)	141,294	100.0%	154,770	100.0%	(0.54)	13,476	9.5%	YES
White	98,271	69.6%	112,446	72.7%	(0.39)	14,175	14.4%	YES
Black/African American	12,699	9.0%	12,660	8.2%	(1.95)	-39	-0.3%	NO
Asian/Pacific Islander	12,631	8.9%	13,264	8.6%	(2.36)	633	5.0%	NO
Other Race/Multi-Racial	17,693	12.5%	16,400	10.6%	(3.59)	-1,293	-7.3%	NO
Hispanic/Latino	25251	17.9%	22,894	14.8%	***	-2,357	-9.3%	***

AGE 65 AND ABOVE	2000 Census		2005-5009 ACS			Change		Statistical Significance
	Persons	Percent	Persons	Percent	CV	Persons	Percent	
Total (Any Ethnicity)	17,215	100.0%	18,202	100.0%	(2.16)	987	5.7%	NO
White	14385	83.6%	14557	80.0%	(1.72)	172	1.2%	NO
Black/African American	1533	8.9%	1541	8.5%	(5.87)	8	0.5%	NO
Asian/Pacific Islander	851	4.9%	1324	7.3%	(15.21)	473	55.6%	YES
Other Race/Multi-Racial	446	2.6%	780	4.3%	(26.62)	334	74.9%	NO
Hispanic/Latino	814	4.7%	1525	8.4%	***	711	87.3%	***

Coefficient of Variation (CV) = Percent of Variability

Reliable = CV < 5.00    Less Reliable = 5.00 < CV < 15.00    Not Reliable = CV > 15.00

\*\*\* Controlled Estimate. Statistical testing is not appropriate.



# GENDER

2000 Decennial Census and 2005-2009 American Community Survey

According to the 2005-2009 ACS there are Arlington population is almost split equally among males and females, with less than 1.0 percent difference between the two groups. The estimates for the White race show that there are only 66 more males than females.

In all other race and ethnic categories, except Asian/Pacific Islander, the total number of males is greater than that of females. For Asian/Pacific Islanders, there are an estimated 8,966 females and 8,534 males. All

coefficients of variation are low enough for the 2005-2009 ACS estimates to be considered reliable.

The increase, since 2000, in White males by 12.6 percent and females by 12.5 percent was the largest increase among the race and ethnic categories and were found to be statistically significant. Other statistically significant changes include the increase in Asian/Pacific Islander males by 12.1 percent and the decrease in Black/African American females by 9.4 percent.

Figure 8: Males By Race and Ethnicity

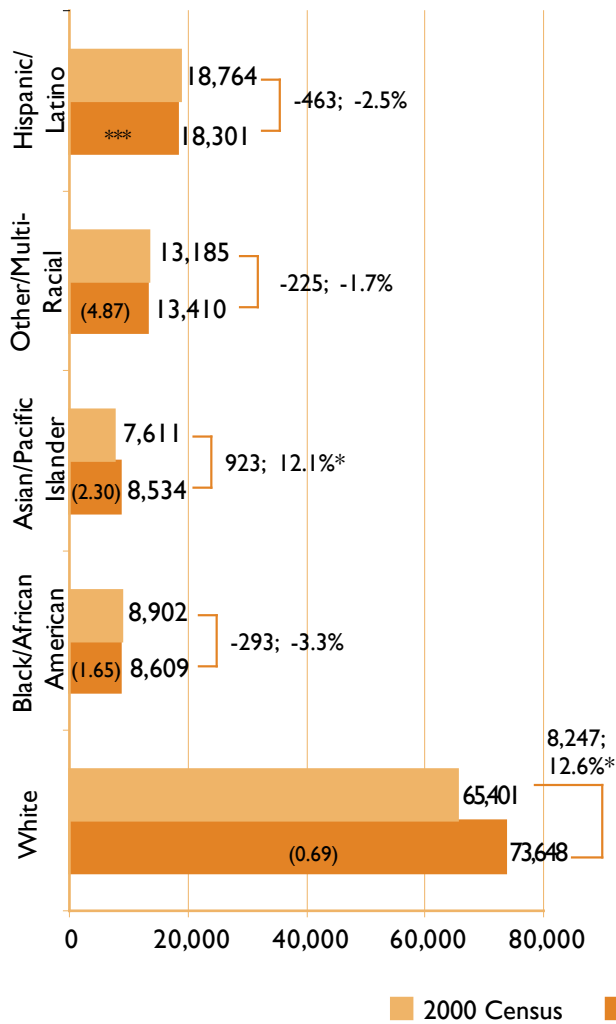
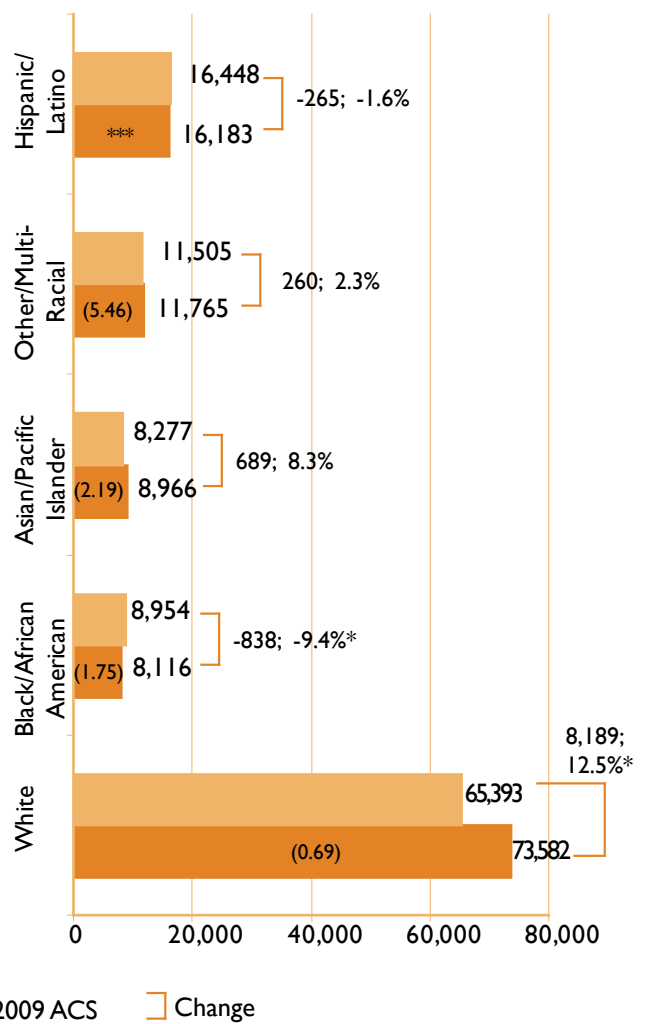


Figure 9: Females By Race and Ethnicity



Coefficient of Variation (CV) = Percent of Variability

Reliable = CV < 5.00

Less Reliable = 5.00 < CV < 15.00

Not Reliable = CV > 15.00

\*\*\* Controlled Estimate. Statistical testing is not appropriate.

# GEOGRAPHIC MOBILITY

2005-2009 American Community Survey

Geographic mobility refers to the geographic location of an individual's (age one year and over) residents for the previous year. Mobility is classified into five categories: same house (no movement), moved within same county, moved from a different county in the same state, moved from a different state, and moved from abroad. The figure below shows the geographic mobility by race and ethnicity. The bar chart shows the distribution of those residents that have moved in the previous year. The "No Movement" column on the right refers to the percentage of individuals that resided in the same house in the previous year.

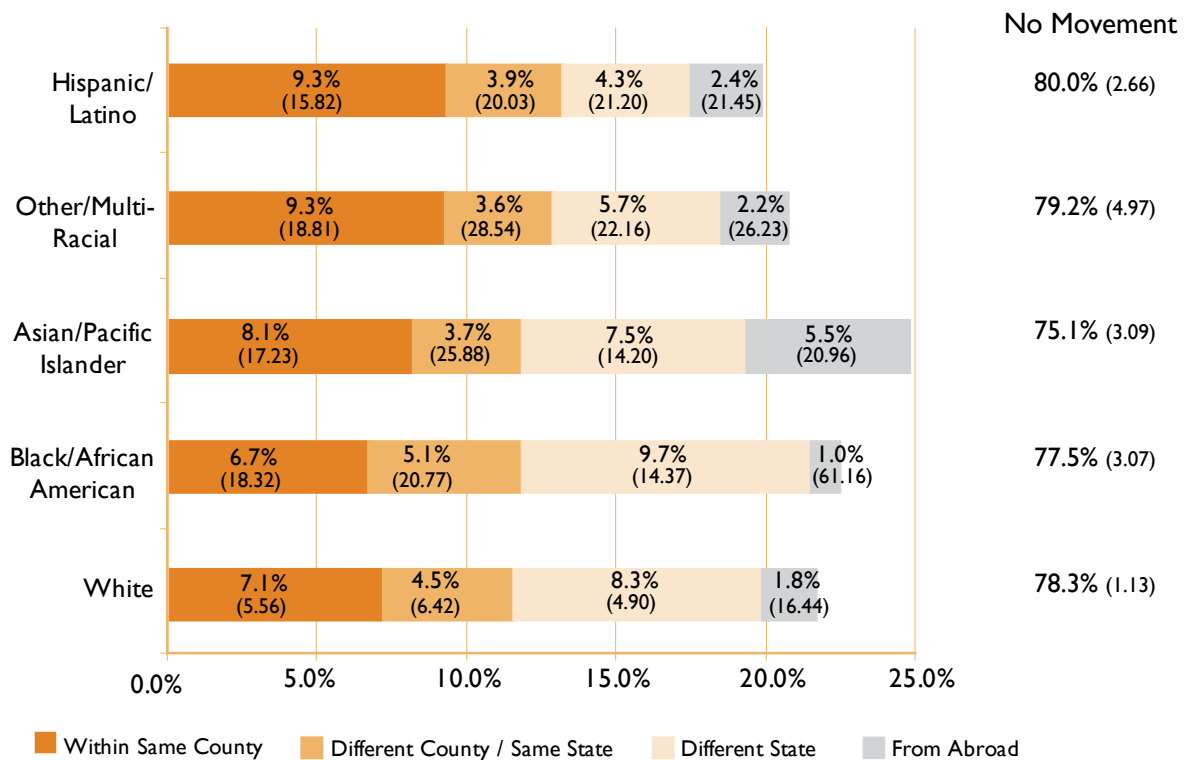
The majority of each race and ethnic group had no movement. Many of the coefficients of variation are

too high to be considered reliable. However, it is important to review the distribution among those that moved and those that remained in the same residence.

Those of Hispanic or Latino origin, Other/Multi-Racial, or Asian/Pacific Islander all share the same overall trend within each racial and ethnic group. Of those that moved, the largest shared moved from another location within Arlington, followed by those that moved from another state.

For the Black/African American and White populations, the largest share of those that moved to Arlington were coming from another stated, followed by those that moved within Arlington.

Figure 10: Geographic Mobility by Race and Ethnicity



Coefficient of Variation (CV) = Percent of Variability

Reliable = CV < 5.00

Less Reliable = 5.00 < CV < 15.00

Not Reliable = CV > 15.00

## Published and Forthcoming Reports

A series of 2005-2009 ACS 5-Year Estimate reports will be released in 2011. Below is a list of ACS topics and release months.

Overview (January 2011)

Households and Families (February 2011)

Age (February 2011)

Language (March 2011)

Foreign Population (April 2011)

Employment (April 2011)

Education (May 2011)

Income (May 2011)

Poverty (June 2011)

Journey to Work (June 2011)

Housing (July 2011)

Once published, copies of the reports may be downloaded at the following location:

[www.arlingtonva.us/PRAT](http://www.arlingtonva.us/PRAT)

The Planning Research and Analysis Team (PRAT) is part of Arlington County Planning Division and is responsible for maintaining, analyzing, and disseminating information related to planning development and demographics.

PRAT staff are Robert Ruiz (Team Leader), Elizabeth Rodgers, and Andrew D'huyvetter.



ARLINGTON  
VIRGINIA

---

DEPARTMENT OF COMMUNITY PLANNING, HOUSING AND DEVELOPMENT  
Planning Division  
Planning Research and Analysis Team

2100 Clarendon Boulevard, Suite 700  
Arlington, VA 22201  
[www.arlingtonva.us](http://www.arlingtonva.us)  
(703) 228-3525