

RTMENT OF COMMUNITY PLANNING, HOUSING
ING DIVISION DEPARTMENT OF COMMUN
COMMUNITY PLANNING, HOUSING & DEV
ING, HOUSING & DEVELOPMENT PLANNI
PLANNING DIVISION DEPARTMENT OF CO

HOUSING

2005-2009 AMERICAN COMMUNITY SURVEY

July 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

INTRODUCTION

2009 American Community Survey

This report, *Housing, 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, race and ethnicity, income, employment, education, poverty, language, commuting, and foreign population.

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.

HOUSING OVERVIEW

2005-2009 American Community Survey

The U.S. Census Bureau captures data on tenure, whether a home is owned or rented, through the ACS. These data are used for a variety of programs across the county. For example, “the U.S. Department of Housing and Urban Development [uses these data] to establish Fair Market Rents and also are essential for the Federal Housing Authority’s mortgage insurance program.” Federal and local agencies use these data to calculate homeownership vacancy rates and rental vacancy rates to evaluate the viability of the housing markets.

According to the 2005-2009 ACS 5-Year Estimate, in Arlington County residents living in owner and renter occupied units are split almost evenly. Of the total 90,303 occupied housing units, 48.2 percent are owner occupied units and 51.8 percent are renter occupied

units as Figure 2 shows. Both of these estimates are considered reliable due to low CV values.

The distribution of household size by tenure is shown in Figure 3. The breakdown of owner occupied units by household size shows that the share of units for each of the household sizes (one, two, or three or more persons) are fairly consistent at 16.9, 16.1, and 15.3 percents. However, for the renter occupied units, there is a clear dominant households size. One-person households have the highest share of total rental units at 26.3 percent. This is followed by two-person households at 15.5 percent and three or more person households at 10.0 percent. All CV values for household size by tenure are low and considered to be reliable.

Figure 2: Tenure of Occupied Units

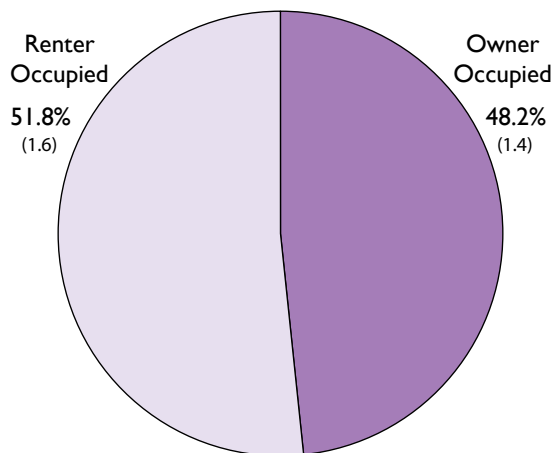


Figure 3: Tenure by Household Size

Tenure	Units	Percent	CV
Owner Occupied:	43,550	48.2%	(1.38)
1-Person	15,282	16.9%	(2.79)
2-Person	14,495	16.1%	(2.85)
3 or More Person	13,773	15.3%	(3.28)
Renter occupied:	46,753	51.8%	(1.63)
1-Person	23,733	26.3%	(2.30)
2-Person	13,983	15.5%	(3.93)
3 or More Person	9,037	10.0%	(5.09)
Total Households	90,303	100.0%	(0.70)

*Statistically Significant

Coefficient of Variation (CV) = Percent of Variability

Reliable = CV < 5.00

Less Reliable = 5.00 < CV < 15.00

Not Reliable = CV > 15.00

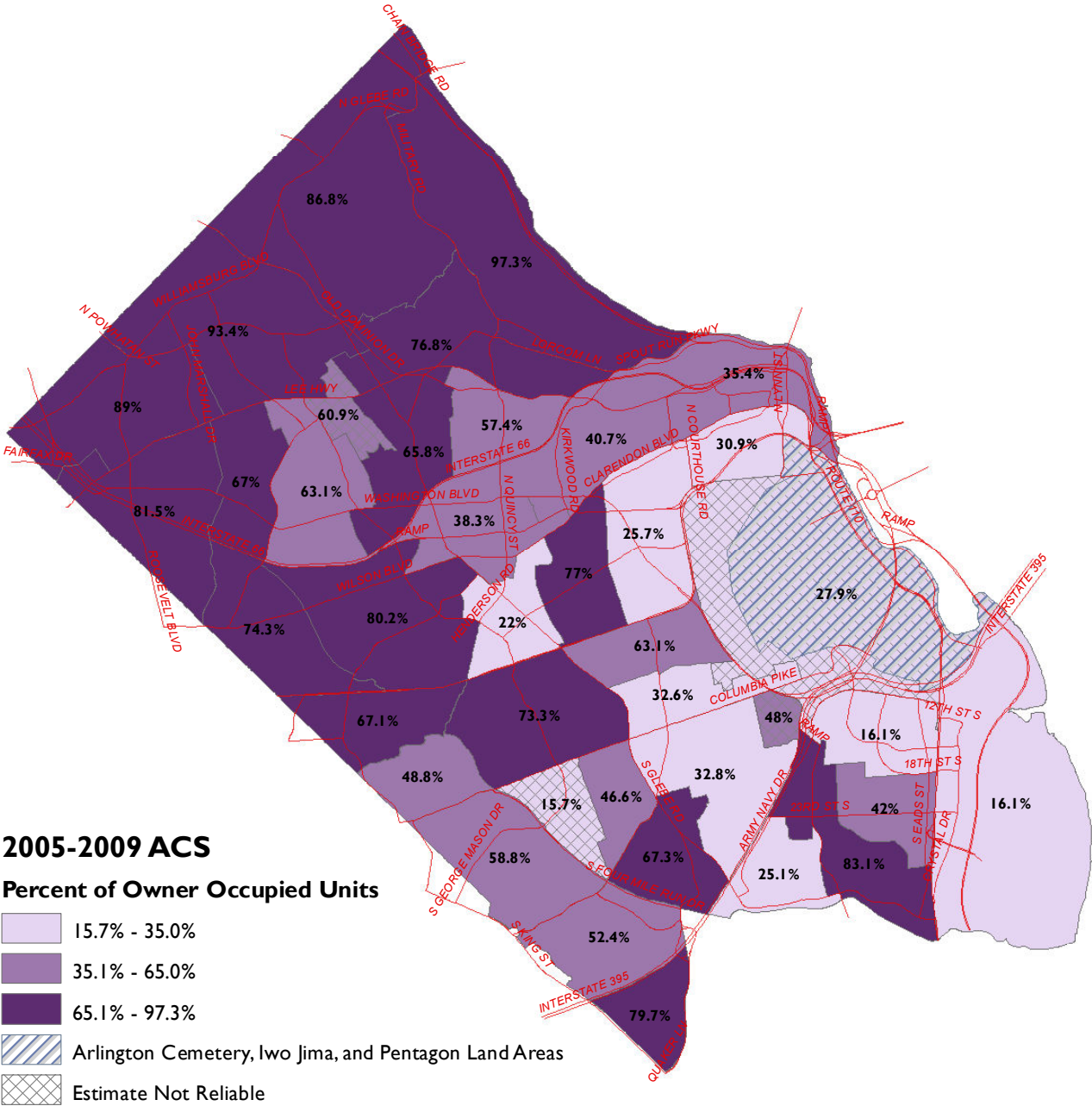
OWNER OCCUPIED UNITS

2005-2009 American Community Survey

Owner occupied units can be found throughout Arlington. The 2005-2009 ACS estimates the percentage of owner occupied units per census tract ranging from 16.1 percent to 97.3 percent, as shown in the map below. The majority of tracts with high percentages of owner occupied units are in northern

Arlington. The tracts with the lowest percentages of owner occupied units are located to the south of the areas of Rosslyn, Courthouse, and Clarendon Buckingham; the eastern area of Columbia Pike; and Pentagon and Crystal City areas.

Figure 4: 2005-2009 ACS Occupied Units



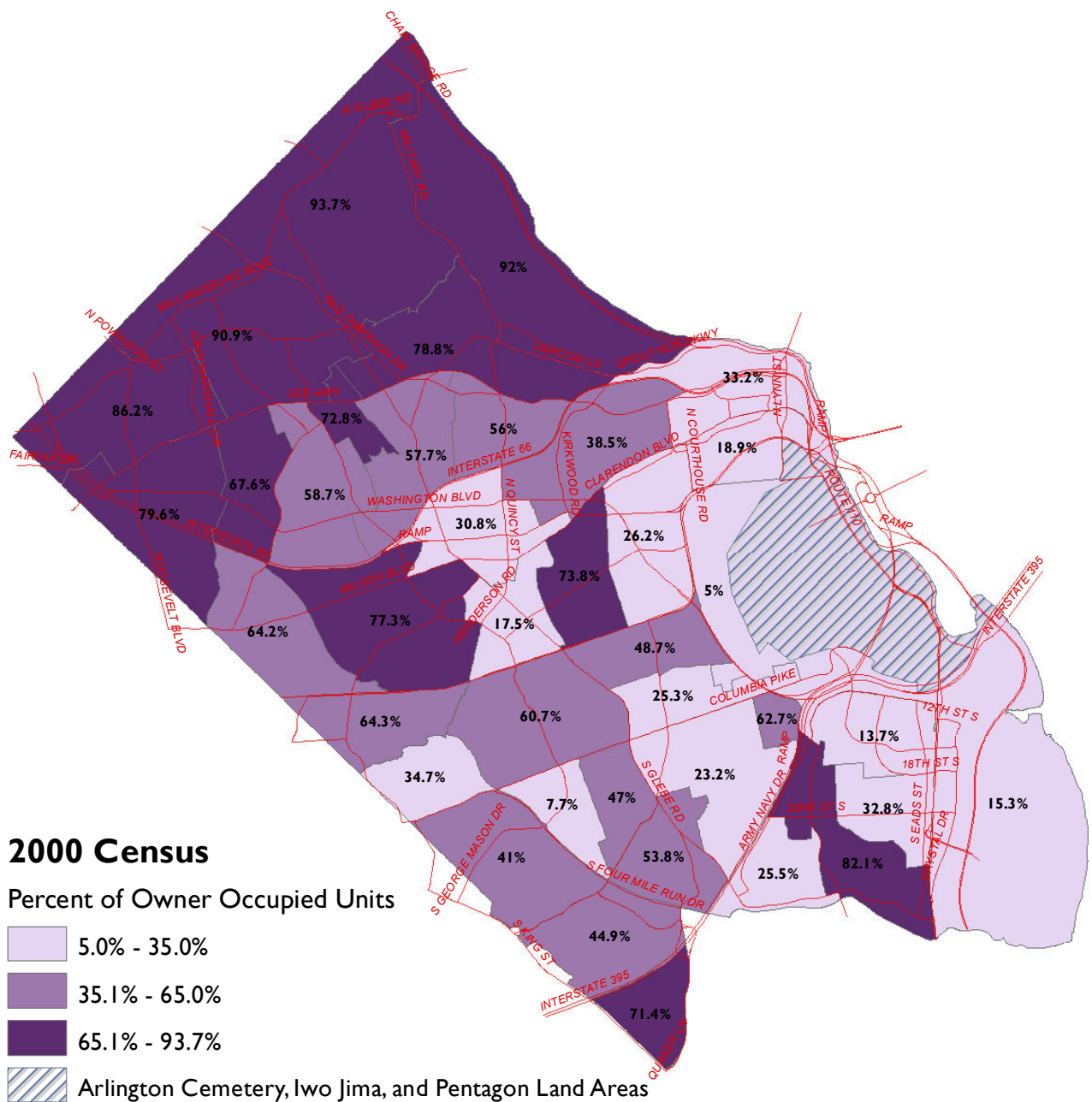
OWNER OCCUPIED UNITS

2000 Decennial Census

The 2000 Census reports that the County wide percentage of owner occupied units was 43.3 percent. This percentage of owner occupied units in 2000 is about 5 percent less than the percentage estimate owner occupied units in the 2005-2009 ACS. The

percentage of occupied units for the 2000 Census is shown in the map below. The map indicates there are more areas with lower owner occupied rates compared to the 2005-2009 ACS.

Figure 5: 2000 Census Owner Occupied Units



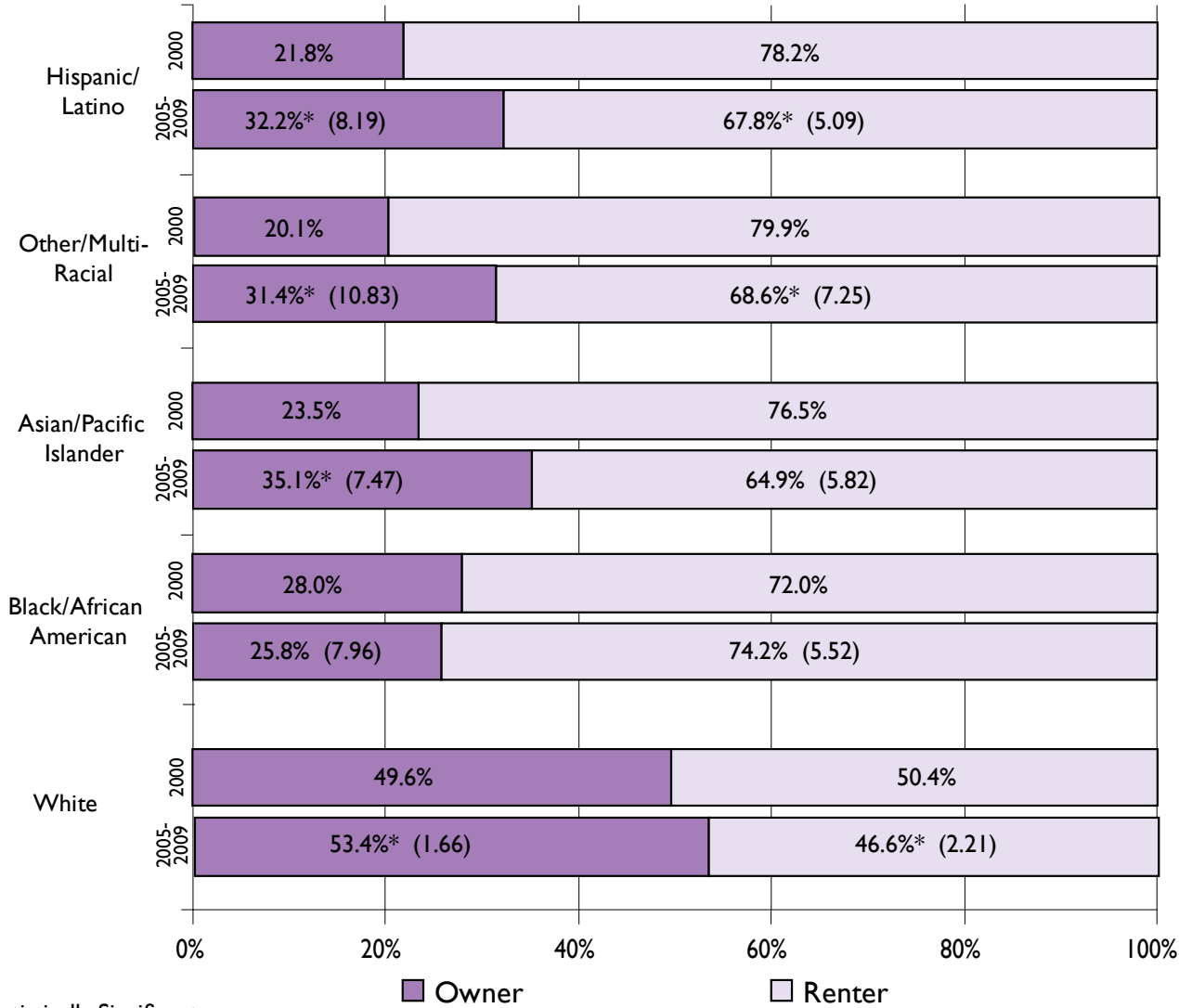
RACE & ETHNICITY

According to the 2005-2009 ACS the majority of those that own or rent housing units in Arlington are White at 77.4 percent of all units. Those of Hispanic or Latino origin have second highest percentage (9.8 percent) of an individual race or ethnic group that owns or rents a housing unit. All 2005-2009 ACS estimates for tenure by race and ethnicity are considered reliable.

own or rent housing units by race and ethnic category for the 2000 Census and 2005-2009 ACS. The 2005-2009 ACS shows that there were increases in the percentage of owner occupied units and decreases in renter occupied units for White, Asian/Pacific Islander, Other/Multi-Racial, and those of Hispanic or Latino origin. All of these increases were determined to be statistically significant.

Figure 6 below shows the percentage of those that

Figure 6: Tenure by Race and Ethnicity



*Statistically Significant

Coefficient of Variation (CV) = Percent of Variability

Reliable = CV < 5.00

Less Reliable = 5.00 < CV < 15.00

Not Reliable = CV > 15.00

AGE

The 2005-2009 ACS estimates the number of owner and renter occupied units by age group. Those households age 35-44 had the highest number of owner occupied units at 10,133 units. This was followed by the age group of 45-54 with 9,109 units. Combined, these two groups make up 44.2 percent of all owner occupied units. All estimates, except for the 15-24 age group, are considered reliable.

Households age 25-34 occupy the largest share of renter occupied units at 44.2 percent, representing 20,675 rental units. The age group of 25-54 occupy three-quarters of renter occupied units. All ACS

estimates for the renter occupied units are considered reliable due to low CV values.

Table 7 below compares the 2005-2009 ACS estimates to the 2000 Census. The largest gains were for owner occupied units. In particular, the age group of 15-24 had the highest percent increase since 2000 by 143.4 percent. Even though the 2005-2009 ACS estimate for this age group is not considered reliable, the overall increase from 2000 was determined to be statistically significant. Overall, the renter occupied units decreased since 2000. The largest decrease was in the 75-84 age group by 41.8 percent.

Figure 7: Tenure by Age of Householder

	2000		2005-2009 ACS			Change		Statistically Significant
	Units	Percent	Units	Percent	CV	Persons	Percent	
Owner Occupied	37,364	100.0%	43,550	100.0%	(1.38)	6,186	16.6%	YES
15-24 years	182	0.5%	443	1.0%	(27.86)	261	143.4%	YES
25-34 years	5,089	13.6%	7,511	17.2%	(5.03)	2,422	47.6%	YES
35-44 years	8,641	23.1%	10,133	23.3%	(3.50)	1,492	17.3%	YES
45-54 years	9,452	25.3%	9,109	20.9%	(3.08)	-343	-3.6%	NO
55-59 years	3,697	9.9%	4,513	10.4%	(4.20)	816	22.1%	YES
60-64 years	2,681	7.2%	3,659	8.4%	(5.42)	978	36.5%	YES
65-74 years	3,404	9.1%	4,116	9.5%	(3.65)	712	20.9%	YES
75-84 years	3,126	8.4%	2,584	5.9%	(5.65)	-542	-17.3%	YES
85 years and over	1,092	2.9%	1,482	3.4%	(8.57)	390	35.7%	YES
Renter Occupied	48,988	100.0%	46,753	100.0%	(1.63)	-2,235	-4.6%	YES
15-24 years	5,221	10.7%	4,455	9.5%	(6.24)	-766	-14.7%	YES
25-34 years	19,791	40.4%	20,675	44.2%	(2.87)	884	4.5%	NO
35-44 years	10,211	20.8%	8,074	17.3%	(4.80)	-2,137	-20.9%	YES
45-54 years	6,248	12.8%	6,211	13.3%	(4.25)	-37	-0.6%	NO
55-59 years	1,928	3.9%	2,533	5.4%	(8.18)	605	31.4%	YES
60-64 years	1,291	2.6%	1,540	3.3%	(9.99)	249	19.3%	NO
65-74 years	2,102	4.3%	1,699	3.6%	(8.55)	-403	-19.2%	YES
75-84 years	1,592	3.2%	927	2.0%	(12.98)	-665	-41.8%	YES
85 years and over	604	1.2%	639	1.4%	(14.65)	35	5.8%	NO

Coefficient of Variation (CV) = Percent of Variability

Reliable = CV < 5.00

Less Reliable = 5.00 < CV < 15.00

Not Reliable = CV > 15.00

HOUSEHOLD TYPE

The 2005-2009 ACS estimates the number of family and nonfamily households living in owner or renter occupied housing units. A family is defined by the U.S. Census Bureau as a householder and one or more other people living in the same household who are related to the householder by birth, marriage, or adoption.

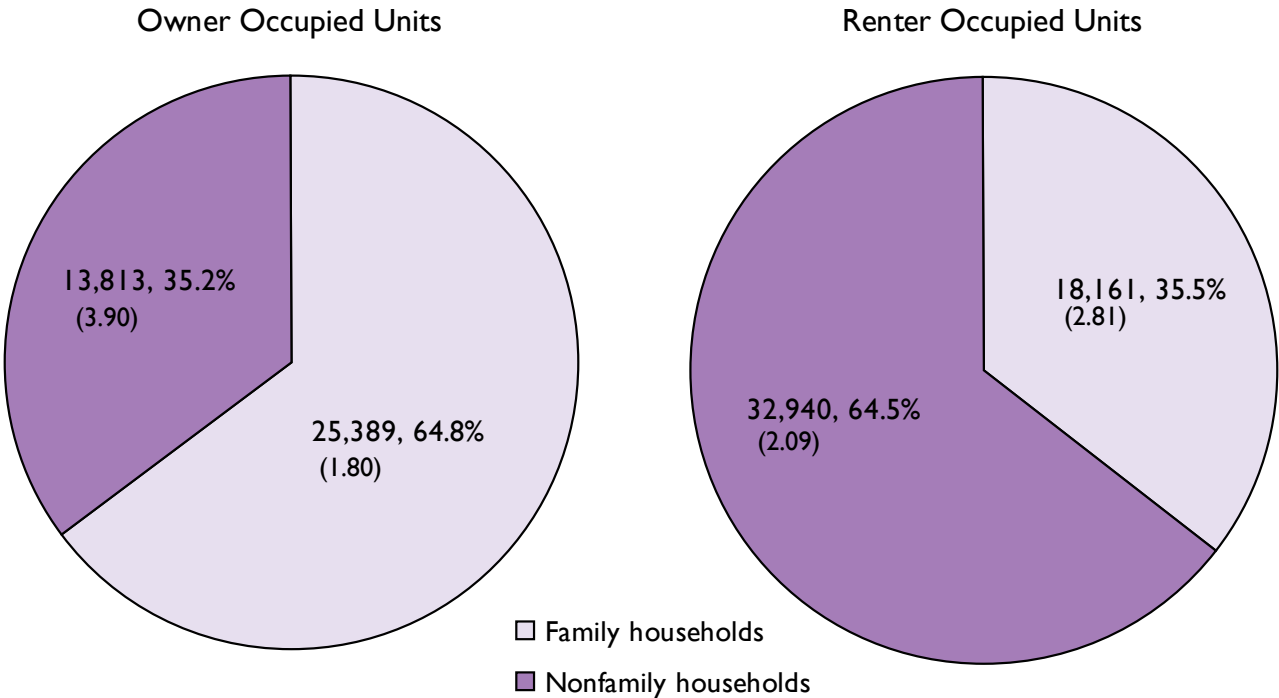
Figure 8 shows the family and nonfamily distribution for both owner and renter occupied housing units. For the owner occupied units, the majority, 64.8 percent

or 25,389 units, are composed of family households. The other 35.2 percent or 13,813 units are occupied by nonfamily households.

The reverse trend exists for the renter occupied units. The majority of units are occupied by nonfamily households at 64.5 percent or 32,940 units. Family households occupy 35.5 percent or 18,161 units.

The 2005-2009 ACS estimates for tenure by household type are not comparable to the 2000 Census.

Figure 8: Tenure by Household Type



Coefficient of Variation (CV) = Percent of Variability
Reliable = CV < 5.00 Less Reliable = 5.00 < CV < 15.00 Not Reliable = CV > 15.00

INCOME

The 2005-2009 ACS estimates that across all income levels, the largest number of owner occupied units (17,324 units) are occupied by households with income levels of \$150,000 or more. Compared to renter occupied units, the largest amount of units is rented by households with an income level between \$50,000 and \$74,999.

Compared to the 2000 Census, almost all income levels have had declines in owner occupied units, except for households with incomes of \$100,000 to

\$149,999 and \$150,000 or more.

The same trend can be seen in the renter occupied units. There have been declines in rental occupied units across income levels from less than \$5,000 to \$50,000 to \$74,999. The household income levels of \$75,000 to \$99,999, \$100,000 to \$149,999, and \$150,000 or more, all had increases in rental occupied units since 2000. All changes, except for income level \$5,000 to \$9,999, from the 2000 Census to the 2005-2009 ACS were determined to be statistically significant.

Figure 9: Household Income for Owner Occupied Units

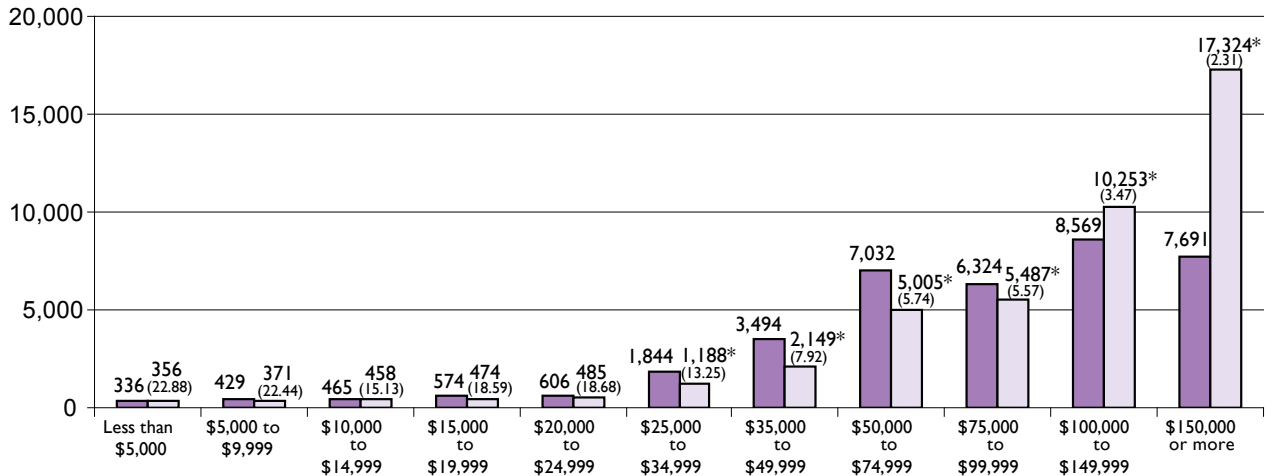
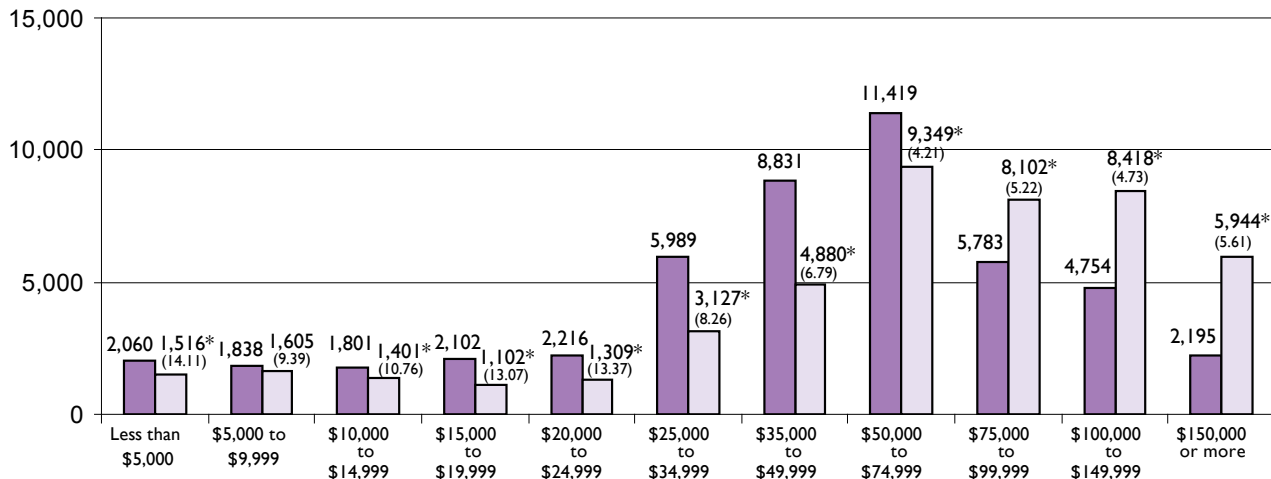


Figure 10: Household Income for Rental Occupied Units



*Statistically Significant
 Coefficient of Variation (CV) = Percent of Variability
 Reliable = CV < 5.00 Less Reliable = 5.00 < CV < 15.00 Not Reliable = CV > 15.00

Published 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)

Race and Ethnicity (March 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)

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

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
(703) 228-3525