

**Joint Center for Housing Studies
Harvard University**

**Revised Interim Joint Center Household Projections
Based Upon 1.2 Million Annual Net Immigrants
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N06-1**

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Introduction

In 2004 the Joint Center for Housing Studies released a set of household projections incorporating the Census Bureau's then recently released interim population projections that were informed by a baseline population count from the 2000 Census (Research Note N04-1).¹ The purpose of that Research Note was to study the implications of these interim population projections, which incorporated 6.8 million more residents than were previously estimated to be living in the U.S. in 2000, on projected future household growth. At the time that we wrote the 2004 paper we anticipated that we would be able to produce a completely new set of household projections in 2005 when the Census Bureau was scheduled to release an entirely new set of population projections based upon a new methodology and a revised set of demographic assumptions. Consequently, the 2004 Joint Center Research Note presented household projections with limited demographic detail and without a tenure breakdown.

The scheduled 2005 Census Bureau population projections were not released last year, and it has now become apparent that they are unlikely to be released in early 2006. Because of the need to have accurate household projections with greater detail than those we produced in 2004, we have undertaken the exercise presented in this paper in order to provide better information for those who use Joint Center household projections in their long-term planning.

As discussed at some length in our 2004 Research Note, a key shortcoming of the 2004 Census Bureau's interim population projections, in our estimation, was the low assumption about future net international immigration. The 2004 interim population projections assumed just over a million net immigrants per year for the first few years following the 2000 census, but then assumed a gradual decline to 800,000 annually by 2010, followed by a slight increase to 850,000 by 2020. These numbers are in sharp contrast to estimates from other government sources in the range of 1.2-1.5 million for the period from 2000-2004. In the household projections presented here, we adjust the Census Bureau's 2004 interim population projections to allow for a constant level of net immigration of 1.2 million per year. The methodology for this adjustment is described in Appendix B.

Another shortcoming of the 2004 Census Bureau interim population projections is that they do not include a full breakdown by race/Hispanic origin. In particular, non-Hispanic blacks

¹ "The Impact of New Census Bureau Interim National Population Projections on Projected Household Growth in the United States" by George S. Masnick, Eric S. Belsky and Zhu Xiao Di. Joint Center for Housing Studies of Harvard University, Research Note N04-1, June 2004.

and non-Hispanic Asians were not separately identified. Only non-Hispanic whites and Hispanics (who are of any race) were broken out with the Hispanic identifier. We would like to have had a full breakdown of non-Hispanics by race so that we could have a racial breakdown that both adds up to the total and has analytical significance. The only non-Hispanic minority category that can be derived from the 2004 interim population projections that meets these criteria is one in which non-Hispanic blacks, non-Hispanic Asians, and all non-Hispanic natives and Pacific Islanders are combined. Rather than report non-Hispanic whites, Hispanics and this combined residual category, we restricted our 2004 household projections to just two groups, non-Hispanic whites alone and an all minority category that includes Hispanics, blacks, Asians, others and all multi-racial. These two broad categories add up to total households. We have chosen to stick with these two broad categories for the present analysis.

We have updated the assumptions about rates of household formation to reflect the levels achieved in 2005 using the 2005 March Supplement to the Current Population Survey. These revised headship rates are slightly lower, especially for minority family household formation, than the 2003 CPS rates used in the 2004 household projections. The household projections presented here also provide greater detail on family type, and a broad breakdown by tenure for total households, non-Hispanic white households and for total minority households. As with our 2004 projections, we opted to hold constant (at 2005 levels) family and non-family headship rates, and family-type breakdowns. Then, as now, our reading is that headship rate and family type trends have stabilized after shifting significantly over the course of the 1970s, 1980s, and, to a lesser degree, the 1990s. In our opinion, changing social trends are therefore likely to have a minimal impact on the number and types of net new households formed. Instead, increases in the population and changes in the age composition and minority share of the population incorporated in our projections are what will drive household growth and household composition in the future.

Revised Household Projections

The net effect of the changes in immigration assumptions and headship rates is to increase the projected household growth by about 150 thousand annually after 2007. Figure 1 shows the difference between our 2004 household projections and the present 2006 series.

Figures 2 and 3 show the difference for non-Hispanic white and total minority households. Table 1 provides a summary of the revised household projections.

Figure 1

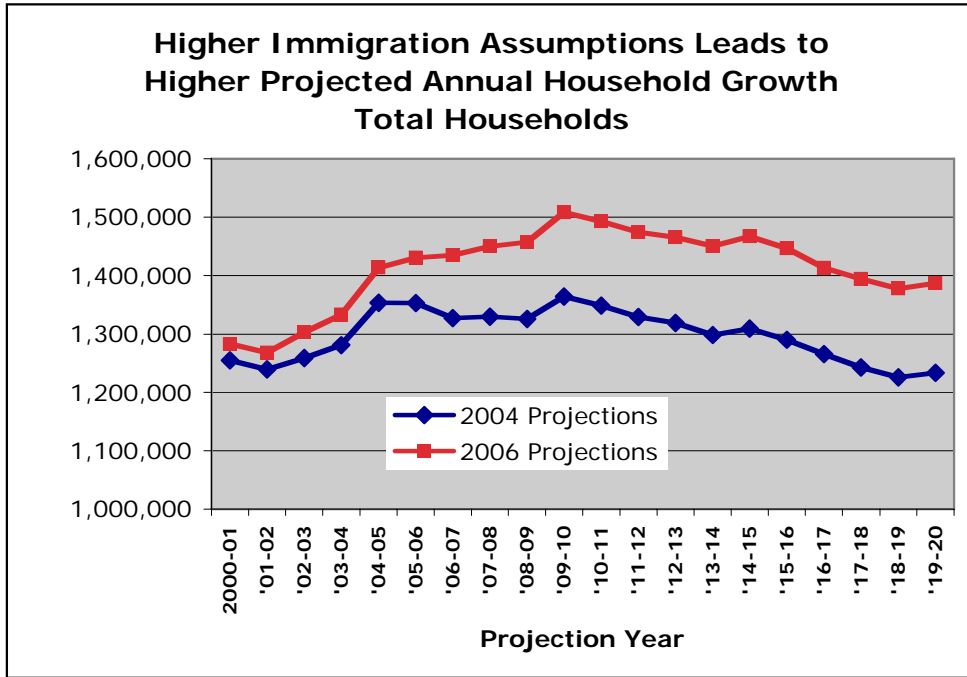


Figure 2

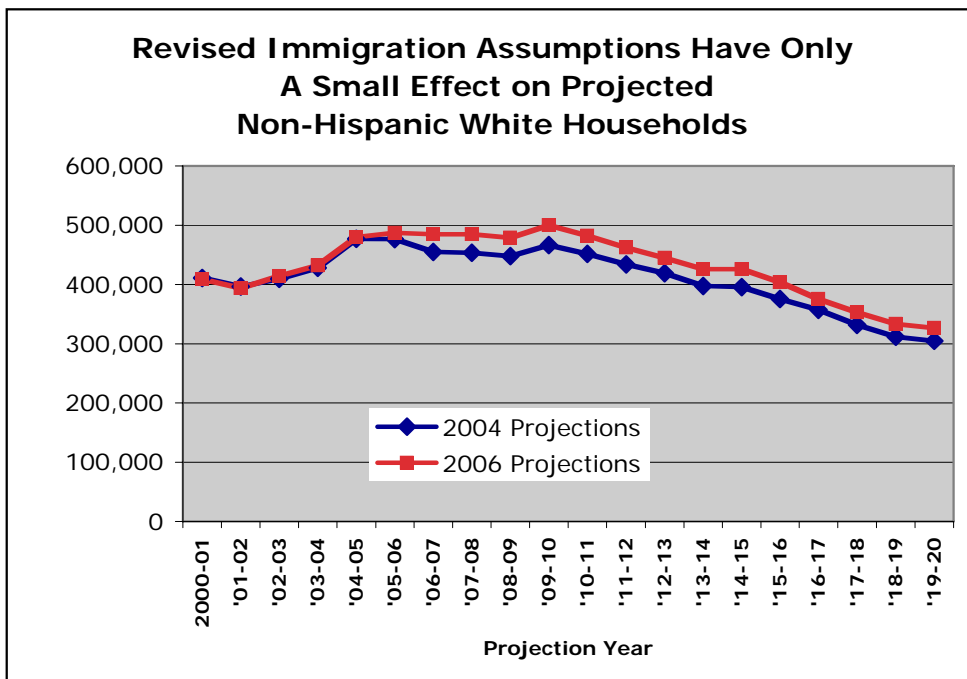


Figure 3

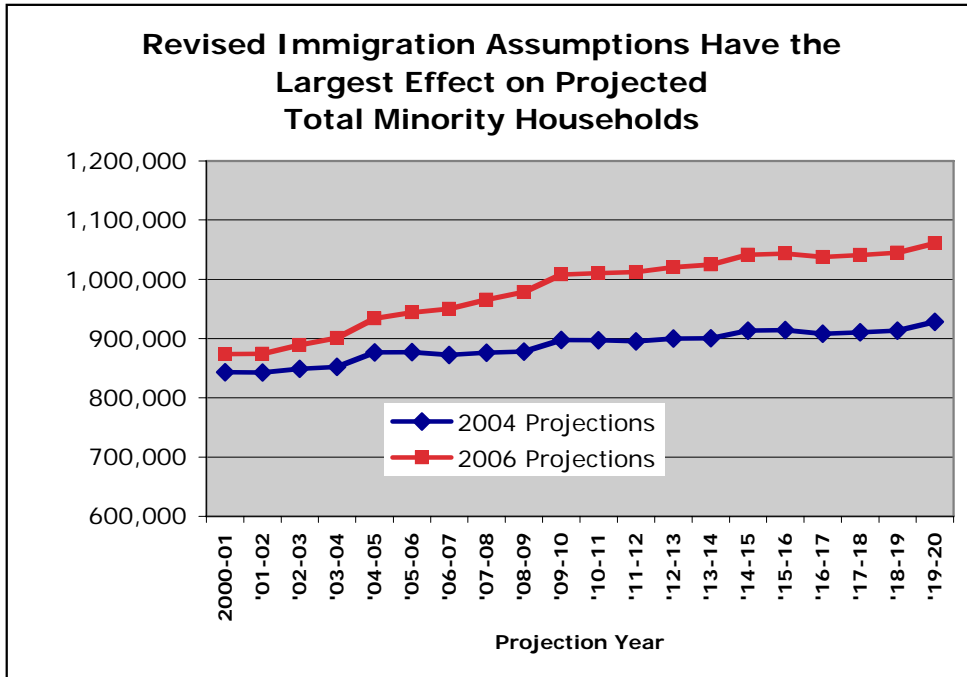


Table 1

Revised Projected Total Households				
	NH White	Minority	Total	Share Minority
2000	80,034,952	27,402,654	107,437,606	25.5%
2001	80,443,866	28,276,452	108,720,318	26.0%
2002	80,837,778	29,150,481	109,988,259	26.5%
2003	81,252,000	30,039,362	111,291,362	27.0%
2004	81,684,276	30,940,436	112,624,712	27.5%
2005	82,164,096	31,874,148	114,038,244	28.0%
2006	82,651,024	32,818,173	115,469,197	28.4%
2007	83,135,665	33,768,489	116,904,154	28.9%
2008	83,620,305	34,733,900	118,354,205	29.3%
2009	84,099,436	35,712,394	119,811,830	29.8%
2010	84,599,555	36,720,407	121,319,962	30.3%
2011	85,081,984	37,730,718	122,812,702	30.7%
2012	85,544,221	38,742,962	124,287,183	31.2%
2013	85,989,207	39,763,478	125,752,685	31.6%
2014	86,415,276	40,788,171	127,203,447	32.1%
2015	86,841,096	41,829,397	128,670,493	32.5%
2016	87,244,789	42,872,566	130,117,355	32.9%
2017	87,620,208	43,910,187	131,530,395	33.4%
2018	87,973,269	44,951,314	132,924,583	33.8%
2019	88,306,581	45,995,882	134,302,463	34.2%
2020	88,633,191	47,056,190	135,689,381	34.7%
Projected Annual Total Household Growth				
	NH White	Minority	Total	
2000-01	408,914	873,798	1,282,712	68.1%
'01-02	393,912	874,029	1,267,941	68.9%
'02-03	414,222	888,881	1,303,103	68.2%
'03-04	432,276	901,074	1,333,350	67.6%
'04-05	479,820	933,712	1,413,532	66.1%
'05-06	486,928	944,025	1,430,953	66.0%
'06-07	484,641	950,316	1,434,957	66.2%
'07-08	484,640	965,411	1,450,051	66.6%
'08-09	479,131	978,494	1,457,625	67.1%
'09-10	500,119	1,008,013	1,508,132	66.8%
'10-11	482,429	1,010,311	1,492,740	67.7%
'11-12	462,237	1,012,244	1,474,481	68.7%
'12-13	444,986	1,020,516	1,465,502	69.6%
'13-14	426,069	1,024,693	1,450,762	70.6%
'14-15	425,820	1,041,226	1,467,046	71.0%
'15-16	403,693	1,043,169	1,446,862	72.1%
'16-17	375,419	1,037,621	1,413,040	73.4%
'17-18	353,061	1,041,127	1,394,188	74.7%
'18-19	333,312	1,044,568	1,377,880	75.8%
'19-20	326,610	1,060,308	1,386,918	76.5%

Demographic changes will gradually increase the minority share of households from over a quarter of all households today to over a third of all households in 15 years. The peak growth in households occurs around 2010, after which the loss of households due to baby boomer deaths (predominately non-Hispanic white) turns the trend in overall annual household growth slowly downward while the share minority continues to climb rapidly. Minorities account for a little over two-thirds of the annual household growth today and will account for over three-quarters of the annual household growth by 2020.

Other Details of the New Projections by Age, Family Type and Tenure

Minority Status by Age - In Appendix A we present the full detail of our revised household projections by minority status, age and family type. In this section we summarize some of the major characteristics of these detailed projections. Figures 4 and 5 show the projected household growth from 2005 to 2015 for both non-Hispanic whites and for minorities by age of head. These charts contrast the 2004 projections with our new revised numbers. The projections for non-Hispanic whites show that the strong increase in households in the older age groups due to the aging of the baby boom is offset by a decline in households headed by middle-age whites as a result of the baby bust entering middle age over the next 10 years (Figure 4). There is little difference for whites between the 2004 and the revised 2006 projections. The revised assumptions add only a total of 278,000 additional households from 2005 to 2015 to the non-Hispanic white column.

Minorities, on the other hand, show significantly higher growth in the new projections, especially among younger adults. A total of over a million more minority households are expected to form between 2005 and 2015 under the revised assumptions. The aging of minority baby boomers certainly does contribute to overall household growth in the older age groups, but the baby bust minority age groups also make positive contributions to household growth (Figure 5). The reason for the positive middle-age minority growth pattern is that they had less of a downturn in fertility in the late 1960s and 1970s than did whites, and these baby bust cohorts have been backfilled by high levels of minority immigration in the 1990s and 2000s. Of the 14.6 million projected total household growth over the next decade, almost 10 million will be minority.

Minority Status by Family Type - The breakdown of projected household growth over the next decade by family type is given in Figure 6. All of the projected growth of households with children under the age of 18 is due to minority growth. In fact, white households with children under the age of 18 should decline in number. This negative growth occurs because households headed by whites in the middle age groups—the very age groups where children are most often present—will decrease in number as we have seen in Figure 4.

Figure 4

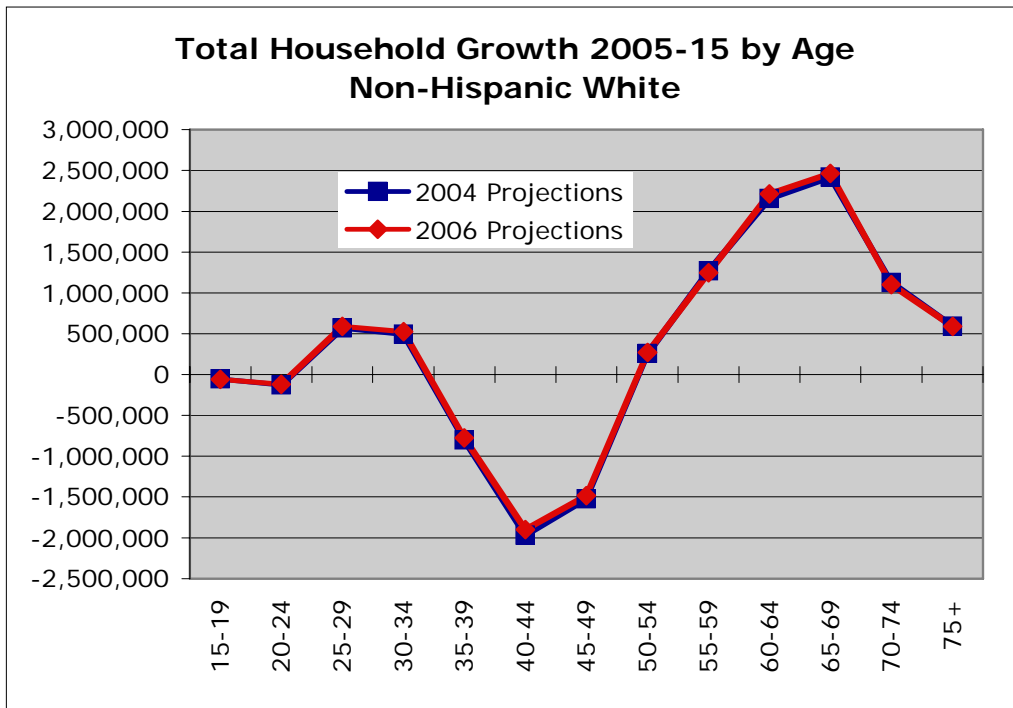


Figure 5

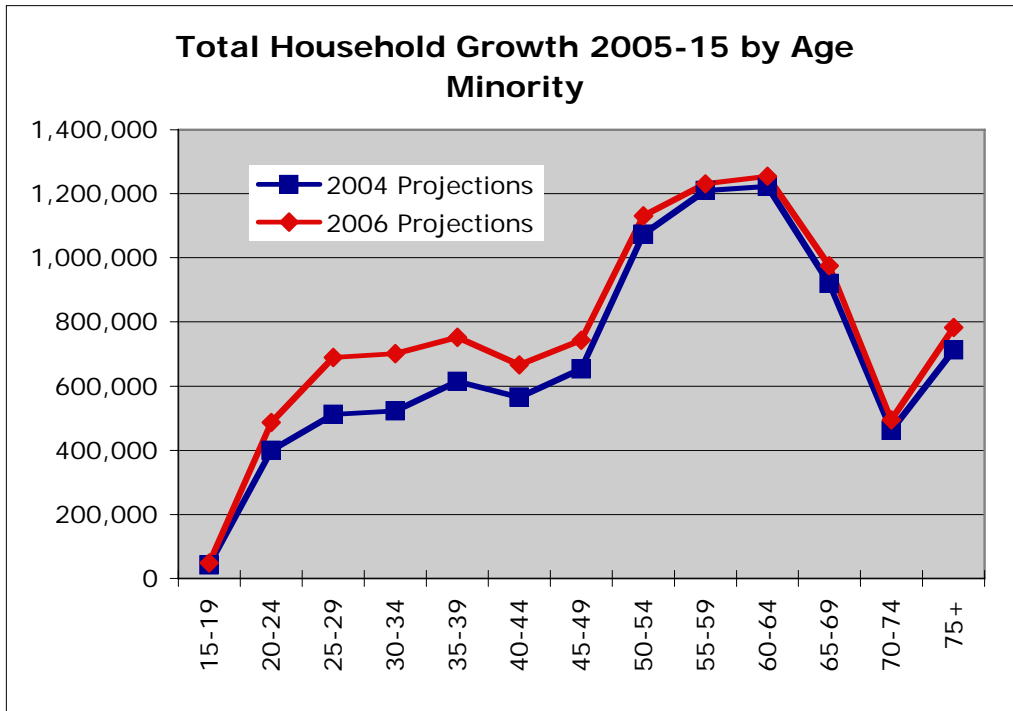
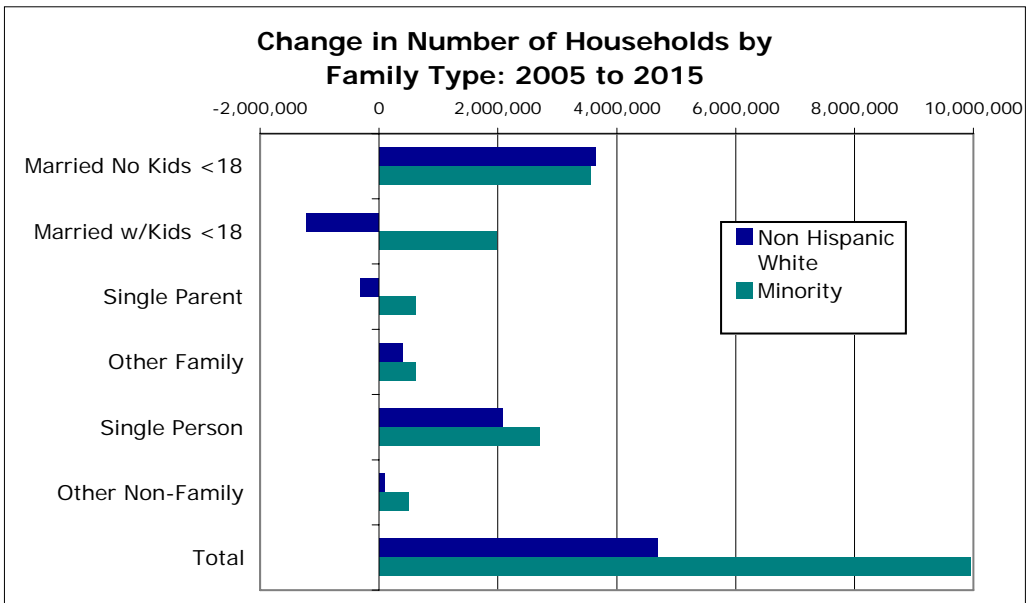


Figure 6



Minority Status by Tenure - We last we presented a tenure breakdown in household projections in 2000. These earlier household projections were based on Census Bureau population projections released in 1999. In these papers we demonstrated very different possible future tenure trajectories based on projected high and low cohort ownership trends from two recent historical periods. We concluded that, in the face of such uncertainty, a middle series trend representing the average of the high and low trends would perhaps best represent the future. We have used this same middle series ownership forecast in the present, revised household projections. The details of how we constructed these series are discussed below. Because future homeownership rate trajectories are so uncertain, especially when broken down by age and family type, we have limited our present tenure breakdown to total non-Hispanic white and total minority households. Tables 2 and 3 present these tenure projections.

Almost all projected household growth is owner growth. Early in the projection, owner household growth is evenly split between whites and minorities with a slight edge to whites. Later in the projection period, minority owner growth begins to dominate.

Table 2

Revised Projected Owner Households				
	NH White	Minority	Total	Share Minority
2000	59,187,519	13,036,381	72,223,900	18.0%
2001	59,800,009	13,599,376	73,399,385	18.5%
2002	60,394,834	14,164,621	74,559,456	19.0%
2003	60,990,252	14,744,070	75,734,321	19.5%
2004	61,606,832	15,337,093	76,943,925	19.9%
2005	62,253,081	15,953,765	78,206,846	20.4%
2006	62,888,821	16,571,221	79,460,042	20.9%
2007	63,536,282	17,196,723	80,733,005	21.3%
2008	64,173,398	17,832,931	82,006,329	21.7%
2009	64,800,637	18,477,497	83,278,134	22.2%
2010	65,444,443	19,145,507	84,589,949	22.6%
2011	66,058,294	19,798,395	85,856,688	23.1%
2012	66,681,337	20,456,884	87,138,221	23.5%
2013	67,293,268	21,127,004	88,420,272	23.9%
2014	67,893,993	21,806,026	89,700,019	24.3%
2015	68,512,297	22,510,718	91,023,015	24.7%
2016	69,088,830	23,207,989	92,296,819	25.1%
2017	69,655,781	23,906,969	93,562,750	25.6%
2018	70,195,098	24,613,377	94,808,475	26.0%
2019	70,725,419	25,327,039	96,052,458	26.4%
2020	71,269,108	26,061,904	97,331,012	26.8%
Projected Annual Owner Household Growth				
	NH White	Minority	Total	
2000-01	612,489	562,996	1,175,485	47.9%
'01-02	594,826	565,245	1,160,071	48.7%
'02-03	595,417	579,448	1,174,865	49.3%
'03-04	616,580	593,024	1,209,604	49.0%
'04-05	646,249	616,672	1,262,921	48.8%
'05-06	635,740	617,456	1,253,196	49.3%
'06-07	647,460	625,502	1,272,963	49.1%
'07-08	637,117	636,208	1,273,324	50.0%
'08-09	627,238	644,566	1,271,805	50.7%
'09-10	643,806	668,009	1,311,815	50.9%
'10-11	613,851	652,888	1,266,739	51.5%
'11-12	623,044	658,489	1,281,533	51.4%
'12-13	611,931	670,120	1,282,050	52.3%
'13-14	600,725	679,022	1,279,748	53.1%
'14-15	618,303	704,693	1,322,996	53.3%
'15-16	576,533	697,271	1,273,804	54.7%
'16-17	566,951	698,980	1,265,931	55.2%
'17-18	539,318	706,408	1,245,725	56.7%
'18-19	530,321	713,662	1,243,983	57.4%
'19-20	543,689	734,865	1,278,554	57.5%

Table 3

Revised Projected Renter Households				
	NH White	Minority	Total	Share Minority
2000	20,847,433	14,366,273	35,213,706	40.8%
2001	20,643,857	14,677,076	35,320,933	41.6%
2002	20,442,944	14,985,860	35,428,803	42.3%
2003	20,261,748	15,295,292	35,557,041	43.0%
2004	20,077,444	15,603,343	35,680,787	43.7%
2005	19,911,015	15,920,383	35,831,398	44.4%
2006	19,762,203	16,246,952	36,009,155	45.1%
2007	19,599,383	16,571,766	36,171,149	45.8%
2008	19,446,907	16,900,969	36,347,876	46.5%
2009	19,298,799	17,234,897	36,533,696	47.2%
2010	19,155,112	17,574,900	36,730,013	47.8%
2011	19,023,690	17,932,323	36,956,014	48.5%
2012	18,862,884	18,286,078	37,148,962	49.2%
2013	18,695,939	18,636,474	37,332,413	49.9%
2014	18,521,283	18,982,145	37,503,428	50.6%
2015	18,328,799	19,318,679	37,647,478	51.3%
2016	18,155,959	19,664,577	37,820,536	52.0%
2017	17,964,427	20,003,218	37,967,645	52.7%
2018	17,778,171	20,337,937	38,116,108	53.4%
2019	17,581,162	20,668,843	38,250,005	54.0%
2020	17,364,083	20,994,286	38,358,369	54.7%
Projected Annual Renter Household Growth				
	NH White	Minority	Total	
2000-01	-203,575	310,802	107,227	289.9%
'01-02	-200,914	308,784	107,870	286.3%
'02-03	-181,195	309,433	128,238	241.3%
'03-04	-184,304	308,050	123,746	248.9%
'04-05	-166,429	317,040	150,611	210.5%
'05-06	-148,812	326,569	177,757	183.7%
'06-07	-162,819	324,814	161,994	200.5%
'07-08	-152,477	329,203	176,727	186.3%
'08-09	-148,107	333,928	185,820	179.7%
'09-10	-143,687	340,004	196,317	173.2%
'10-11	-131,422	357,423	226,001	158.2%
'11-12	-160,807	353,755	192,948	183.3%
'12-13	-166,945	350,396	183,452	191.0%
'13-14	-174,656	345,671	171,014	202.1%
'14-15	-192,483	336,533	144,050	233.6%
'15-16	-172,840	345,898	173,058	199.9%
'16-17	-191,532	338,641	147,109	230.2%
'17-18	-186,257	334,719	148,463	225.5%
'18-19	-197,009	330,906	133,897	247.1%
'19-20	-217,079	325,443	108,364	300.3%

The share of owner households that are minority is now about 20 percent. This figure should rise to about 25 percent over the next decade. Minority renter household shares were 44 percent in 2005 and will exceed 50 percent in 10 years. Non-Hispanic white renter household growth is now negative and is projected to continue to be negative for decades to come. All of the projected renter growth is on the minority side.

New Household Projections Compared to 2000-05 Estimated Household Growth

Our household projections begin in the year 2000 and incorporate the higher immigration assumption of 1.2 million constant net annual immigrants from that year forward. We can compare our new projections to various estimates of household growth during the first five years of the projection period using household growth estimates from different government data sources. When making comparisons, we are less concerned with the levels of household counts because of a fundamental lack of agreement among the government data sources and more concerned with annual household growth being measured by the several data sets. The household growth estimates that we have preferred to use in the past come from the Housing Vacancy Survey (HVS). The HVS annual estimates are released at the end of January of each year, and have been preferred because they constitute an average of four quarterly numbers and a legitimate mid-year estimate. The averaging of the quarterly estimates in the HVS helps to reduce the effects of random survey sampling variability and seasonal influences. Other estimates come from the Current Population Survey (CPS) and the American Community Survey (ACS). The CPS estimates rely on the March demographic supplement to the monthly CPS, and these estimates have a greater amount of sampling variability inherent in them. The ACS has a much larger sample size than either the HVS or CPS, and is collected throughout the calendar year, but contains a different definition of household occupancy than other surveys, which raises questions about its suitability for tracking household growth.²

Tables 4 and 5 present the various estimates of households and household growth covering the period 2000-2005, including several Joint Center projection series - Table 4 with a breakdown by minority status and Table 5 with a breakdown by tenure. What stands out in the

² The ACS allows for a unit to be counted as occupied (ie., as a household) if the respondent has lived or plans to live in the unit for at least two months. Other surveys require that the housing unit be the respondent's principal place of residence. A certain number of households in the ACS might otherwise appear as vacant units in other surveys. In addition, the location of households in the ACS might tilt more toward vacation areas, and the tenure split might tilt toward renter occupancy.

first panels of Table 4 and 5 is the general lack of agreement among the various government survey estimates in total number of households, especially after 2003 when new questionnaire design, new race/Hispanic origin questions, new census weights, and, in the case of the HVS, new methodology defining the total number of occupied housing units, are fully implemented. The HVS produces the lowest estimates for 2005 of 108.2 million households, just 2.7 million more than counted in the 2000 census. The CPS has the highest current estimate of 113.1 million households, almost 5 million more than the HVS and 8 million more than the 2000 census. The ACS estimates are generally between these two other estimates.

The new Joint Center household projections give slightly lower household counts than our 2004 CPS-based projections due to the slightly lower headship rates in the 2005 CPS compared to the 2003 CPS, but slightly higher annual growth because of the higher immigration assumption. The largest differences between the 2004 immigration assumptions and the newly revised assumptions occur after 2005 (refer back to Figures 2 and 3).

The 5-year period 2000-05 poses a particular challenge in calculating an average household growth number because of the re-benchmarking of the various surveys to new census weights that took place in 2003 and, most importantly, because of other changes in survey methodology that were also implemented in 2003. Some examples include the new way race/Hispanic origin was determined starting 2003 in both the HVS and CPS and the way occupied housing units were determined in the HVS.

The HVS ranges from under 600,000 annual growth in 2002r-03 to over 1.6 million annual growth in 2004-05. The CPS ranges from over 1.9 million in 2002r-03 to just over 700,000 in 2003-04. Because of this yearly variability in annual estimates, we are reluctant to cite annual growth estimates and always prefer to focus on average change over a longer time period, such as a span of five years.

**Table 4
Comparison of Various Household Growth Estimates 2000-2005**

	2000	2001	2002	2002rev.	2003	2004	2005
Number of Households (1000s)							
Housing Vacancy Survey							
Total	105,720	107,010	108,539	104,965	105,560	106,588	108,231
NH White	79,242	79,811	80,411	77,179	76,513	76,930	77,640
Minority	26,478	27,199	28,129	27,786	29,047	29,659	30,591
Current Population Survey**							
Total	106,434	108,209	109,297	109,297	111,278	112,000	113,146
NH White	79,819	80,527	80,818	80,818	81,166	81,148	81,445
Minority	26,615	27,682	28,479	28,479	30,112	30,852	31,701
American Community Survey							
Total	104,819	106,429	107,367	107,367	108,420	109,902	n.a.
NH White	78,330	78,690	78,896	78,896	79,439	79,949	n.a.
Minority	26,489	27,739	28,471	28,471	28,981	29,953	n.a.
Joint Center Projections 2002							
Total	105,531	106,697	107,877	107,877	109,048	110,193	111,383
NH White	79,400	79,828	80,262	80,262	80,685	81,088	81,523
Minority	26,131	26,869	27,615	27,615	28,363	29,105	29,860
Joint Center 2004 Interim Projections							
PUMS BASED							
Total	105,828	107,094	108,348	108,348	109,626	110,927	112,300
NH White	79,668	80,107	80,533	80,533	80,975	81,434	81,937
Minority	26,160	26,987	27,815	27,815	28,651	29,493	30,363
CPS BASED							
Total	107,906	109,160	110,400	110,400	111,658	112,939	114,293
NH White	80,187	80,598	80,995	80,995	81,405	81,833	82,310
Minority	27,719	28,562	29,405	29,405	30,253	31,106	31,983
Joint Center 2006 Revised Projections***							
CPS BASED							
Total	107,438	108,720	109,988	109,988	111,291	112,625	114,038
NH White	80,035	80,444	80,838	80,838	81,252	81,684	82,164
Minority	27,403	28,276	29,150	29,150	30,039	30,941	31,874

** CPS for 2000, 2001 and 2002 Re-weighted to 2000 Census

*** Assumes 1.2 million annual net immigrants, 2005 CPS headship held constant and rebenchmarked Middle ownership rate projections as discussed in George S. Masnick and Zhu Xiao Di, "Projections of U.S. Households by Race/Hispanic Origin, Age, Family Type and Tenure to 2020: A Sensitivity Analysis," in Issue Papers on Demographic Trends Important to Housing, U.S. Department of Housing and Urban Development, Office of Policy Development and Research, February 2003. Available at:

http://www.huduser.org/publications/econdev/demographic_trends.html

Table 4 (continued)
Comparison of Various Household Growth Estimates 2000-2005

	Annual Growth						Omitting 2002-03
	2000- 01	2001- 02	2002r- 03	2003- 04	2004- 05	2000- 05	2000-05
Housing Vacancy Survey							
Total	1,290	1,529	595	1,028	1,643	1,217	1,373
NH White	569	599	-666	417	711	326	574
Minority	721	930	1,261	612	933	891	799
Current Population Survey**							
Total	1,775	1,088	1,981	722	1,146	1,342	1,183
NH White	708	291	348	-18	297	325	320
Minority	1,067	797	1,633	740	849	1,017	863
American Community Survey							
Total	1,610	938	1,053	1,482	n.a.	1,271*	
NH White	360	206	543	510	n.a.	405	
Minority	1,250	732	510	972	n.a.	866	
Joint Center Projections 2002							
Total	1,166	1,180	1,171	1,145	1,190	1,170	
NH White	428	434	423	403	435	425	
Minority	738	746	748	742	755	746	
Joint Center 2004 Interim Projections							
PUMS BASED							
Total	1,266	1,254	1,278	1,301	1,373	1,294	
NH White	439	426	442	459	503	454	
Minority	827	828	836	842	870	841	
CPS BASED							
Total	1,254	1,240	1,258	1,281	1,354	1,277	
NH White	411	397	410	428	477	425	
Minority	843	843	848	853	877	853	
Joint Center 2006 Revised Projections***							
CPS BASED							
Total	1,282	1,268	1,303	1,334	1,413	1,320	
NH White	409	394	414	432	480	426	
Minority	873	874	889	902	933	894	

* 2000-2004 for the American Community Survey

** CPS for 2000, 2001 and 2002 Reweighted to 2000 Census

*** Assumes 1.2 million annual net immigrants, 2005 CPS headship held constant and rebenchmarked Middle ownership rate projections as discussed in George S. Masnick and Zhu Xiao Di, "Projections of U.S. Households by Race/Hispanic Origin, Age, Family Type and Tenure to 2020: A Sensitivity Analysis," in *Issue Papers on Demographic Trends Important to Housing*, U.S. Department of Housing and Urban Development, Office of Policy Development and Research, February 2003. Available at: http://www.huduser.org/publications/econdev/demographic_trends.html

**Table 5
Comparison of Various Household Growth Estimates 2000-2005**

	2000	2001	2002	2002rev.	2003	2004	2005
Number of Households (1000s)							
Housing Vacancy Survey							
Total	105,720	107,010	108,539	104,965	105,560	106,588	108,231
Owner	71,250	72,593	73,713		71,278	72,054	74,554
Renter	34,470	34,417	34,826		33,687	33,506	33,677
Current Population Survey**							
Total	106,434	108,209	109,297	109,297	111,278	112,000	113,146
Owner	71,532	73,319	73,949		73,949	75,921	78,574
Renter	34,902	34,890	35,348		35,348	35,357	34,572
American Community Survey							
Total	104,819	106,429	107,367	107,367	108,420	109,902	n.a.
Owner	68,496	69,975	71,302		71,302	72,419	n.a.
Renter	36,323	36,454	36,065		36,065	36,001	n.a.
Joint Center Projections 2002							
Total	105,531	106,697	107,877	107,877	109,048	110,193	111,383
Owner	70,094	71,198	72,304		72,304	73,395	75,599
Renter	35,437	35,500	35,572		35,572	35,652	35,784
Joint Center 2004 Interim Projections							
PUMS BASED							
Total	105,828	107,094	108,348	108,348	109,626	110,927	112,300
Owner	n.a.	n.a.	n.a.		n.a.	n.a.	n.a.
Renter	n.a.	n.a.	n.a.		n.a.	n.a.	n.a.
CPS BASED							
Total	107,906	109,160	110,400	110,400	111,658	112,939	114,293
Owner	n.a.	n.a.	n.a.		n.a.	n.a.	n.a.
Renter	n.a.	n.a.	n.a.		n.a.	n.a.	n.a.
Joint Center 2006 Revised Projections***							
CPS BASED							
Total	107,438	108,720	109,988	109,988	111,291	112,625	114,038
Owner	72,224	73,399	74,559		74,559	75,734	78,207
Renter	35,214	35,321	35,429		35,429	35,557	35,831

** CPS for 2000, 2001 and 2002 Reweighted to 2000 Census

*** Assumes 1.2 million annual net immigrants, 2005 CPS headship held constant and rebenchmarked Middle ownership rate projections as discussed in George S. Masnick and Zhu Xiao Di, "Projections of U.S. Households by Race/Hispanic Origin, Age, Family Type and Tenure to 2020: A Sensitivity Analysis," in Issue Papers on Demographic Trends Important to Housing, U.S. Department of Housing and Urban Development, Office of Policy Development and Research, February 2003. Available at:

http://www.huduser.org/publications/econdev/demographic_trends.html

Table 5 (continued)
Comparison of Various Household Growth Estimates 2000-2005

Annual Growth

	2000-01	2001-02	2002r-03	2003-04	2004-05	2000-05	Omitting 2002-03 2000-05
Housing Vacancy Survey							
Total	1,290	1,529	595	1,028	1,643	1,217	1,373
Owner	1,343	1,120	776	1,521	979	1,148	1,241
Renter	-53	409	-181	-493	664	69	132
Current Population Survey**							
Total	1,775	1,088	1,981	722	1,146	1,342	1,183
Owner	1,787	630	1,972	1,171	1,482	1,408	1,267
Renter	-12	458	9	-449	-336	-66	-85
American Community Survey							
Total	1,610	938	1,053	1,482	n.a.	1,271*	
Owner	1,479	1,327	1,117	1,335	n.a.	1,315	
Renter	131	-389	-64	147	n.a.	-44	
Joint Center Projections 2002							
Total	1,166	1,180	1,171	1,145	1,190	1,170	
Owner	1,104	1,106	1,091	1,087	1,117	1,101	
Renter	63	72	80	59	73	69	
Joint Center 2004 Interim Projections							
PUMS BASED							
Total	1,266	1,254	1,278	1,301	1,373	1,294	
Owner	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Renter	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
CPS BASED							
Total	1,254	1,240	1,258	1,281	1,354	1,277	
Owner	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Renter	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	
Joint Center 2006 Revised Projections***							
CPS BASED							
Total	1,282	1,268	1,303	1,334	1,413	1,320	
Owner	1,175	1,160	1,175	1,210	1,263	1,197	
Renter	107	108	128	124	150	123	

* 2000-2004 for the American Community Survey

** CPS for 2000, 2001 and 2002 Reweighted to 2000 Census

*** Assumes 1.2 million annual net immigrants, 2005 CPS headship held constant and rebenchmarked Middle ownership rate projections as discussed in George S. Masnick and Zhu Xiao Di, "Projections of U.S. Households by Race/Hispanic Origin, Age, Family Type and Tenure to 2020: A Sensitivity Analysis," in Issue Papers on Demographic Trends Important to Housing, U.S. Department of Housing and Urban Development, Office of Policy Development and Research, February 2003. Available at:

http://www.huduser.org/publications/econdev/demographic_trends.html

While both the HVS and CPS have published re-weighted 2002 numbers used in the calculations in Tables 4 and 5, such “revised” numbers appear far from adequate.³ The 2002r-03 growth numbers for the HVS and CPS that attempt to bridge these revisions appear to be particularly out of line with each other and with earlier and later estimates within each survey. Both the highest annual estimate of household growth during 2000-05 (1.9 million in the CPS) and lowest (595,000 in the HVS) are the 2002r-03 estimates incorporating revised methodologies. The discrepancy both within and between series in the minority status breakdown for annual growth 2002r-2003 is particularly striking (cells highlighted).

Because we believe that these numbers lack any credibility, we have dropped them from our calculations of average growth 2000-05, and instead estimate average growth from what was measured in each of the other four years in that period using consistent methodology in the year-to-year comparisons. According to this calculation, annual household growth according to the HVS, our preferred series, averaged 1.37 million during 2000-05. This average is close to what we now have in our new household projections for 2000-05 (1.32 million). In addition to similarity in total annual household growth, the HVS and revised Joint Center projections are fairly close on the tenure split, with a less than 50,000 owner household and less than 10,000 renter household difference between the two series. The higher minority growth in our revised household projections is consistent with the higher immigration assumption in our series.

We want to make one further observation about the low baseline counts in the HVS. Starting in 2003, the HVS estimates were controlled to an independent estimate of total housing units that has been developed by the Census Bureau to facilitate the annual collection of American Community Survey data. While it has been quite correctly pointed out by the Housing and Household Economics Division at Census that these new housing unit controls, which for the first time include seasonal units, have only a minor effect on measuring either homeownership or vacancy rates, the Bureau has not commented on the large effect the new control totals have on the total number of housing units that are classified as occupied. In 2002, the HVS originally estimated that there were 108.5 million households (the revised 2002 number

³ Briefly stated, the problem is that the 2002 surveys had very different questions on race/Hispanic origin than the 2003 surveys. The 2003 questionnaires followed the 2000 census methodology that was substantially different from 1990 census methodology (applied in the surveys through 2002) – the new methodology allowing for multiple race answers, asking Hispanic origin before race, prompting Hispanic origin responses with different examples, and editing non-responses differently. Because the census weights are age and race/Hispanic origin specific, it is impossible to match the revised 2000 census weights to the 2002 race categories with which the data were collected.

was less than 105 million). The 2005 HVS total household estimate was less than the original 2002 estimate, and between 3 and 5 million lower than estimates from the ACS and CPS. Perhaps the low-balling of household numbers in the HVS relative to other surveys will be addressed and resolved in the future. To accomplish this, greater attention needs to be given to the accuracy of the total housing unit control totals and to the way that vacancies are measured, particularly in units that are in regular use for only part of the year by both owners and renters. If not, it seems clear that the total household counts in the HVS are now on a trajectory that will result in a large shortfall in households when the 2010 census is taken; we are still more comfortable, however, with the annual growth estimates produced by the HVS. A similar bias in two consecutive years can still produce an accurate annual growth estimate.⁴

Headship Rate Trends and Assumptions

Projected households are calculated by multiplying the projected population by age and minority status by headship rates by age, minority status and broad family type. In past decades, headship rates exhibited significant trends over time. In particular, there was a strong shift away from family households toward non-family living arrangements as marriages were delayed, divorce rates shot up, and fertility rates declined. For household projections released by the Joint Center in 2002 and earlier, we used cohort-trended headship rates that reflected these trends. The projection model allowed us to select cohort headship trends in a specific historical 5-year period and apply them to future trends.

The household projection model also allowed for the selected cohort trends to be dampened toward a constant value. In the latest projections for which cohort trending of headship rates was utilized, trends were dampened toward constancy by 25 percent in each 5-year projection period, so that for the last projection period, 2015-20, rates were held the same as those calculated for 2010-15.⁵ In recent years, marriage, divorce, and fertility trends have greatly stabilized, and headship rates have consequently changed but little. Figures 7-10 show family and non-family headship rates for whites and for minorities for 2003, 2004 and 2005 as

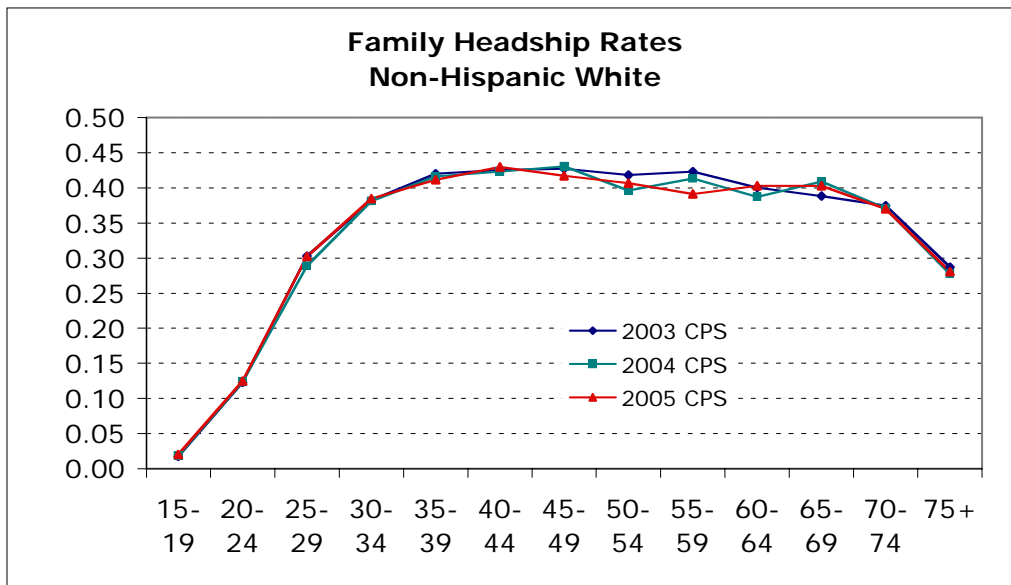
⁴ Just as a yardstick that is missing 6” can still be used to measure a child’s growth from one year to the next.

⁵ For a further discussion of damping see George S. Masnick and Zhu Xiao Di, “Updating and Extending the Joint Center Household Projections Using New Census Bureau Population Projections,” Joint Center for Housing Studies of Harvard University, Research Note N00-1, October 2000.

measured by the CPS.⁶ There appears to be no discernable trend for non-Hispanic whites during this three-year period in either the family or the non-family rates; for minorities, however, there appears to be a decline between 2003 and 2004 in family headship rates and an increase in non-family headship rates. Between 2004 and 2005, these minority rates show no systematic trend.

Because headship rates appear to be stabilizing, we have held rates constant at 2005 levels in the current round of projections.⁷ In addition to the fact of the recent stabilization of headship rates, arguing against selecting, say, the 2000-05 period to model cohort trending is the re-benchmarking of the CPS that occurred in 2003. Cohort trending is very sensitive to changes in methodology between the beginning and ending point when measuring a cohort trend. We will need to wait until 2008 before we have a consistent series over which to measure a 5-year trend to cohort trend 5-year age groups. Choosing an earlier cohort trend, say covering 1995-2000 as we did in our 2000 projections, or 1997-2002 in an effort to update the series, seemed less appealing than selecting the 2005 CPS headship rates, particularly in light of the relative stability in headship that we have observed.

Figure 7



⁶ We use CPS household counts in the numerators and revised projected resident population numbers with 1.2 million net immigrants in the denominators. These rates differ from internal CPS headship rates, which use a household population base for the denominators.

⁷ The 2005 rates were smoothed using a 5th degree polynomial to reduce annual random variation in CPS measurements.

Figure 8

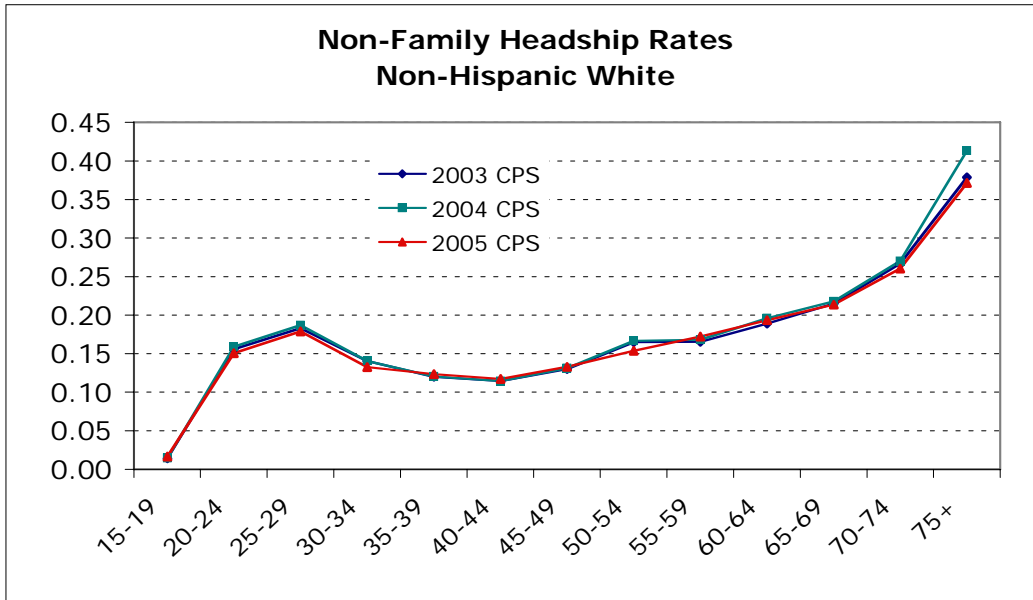


Figure 9

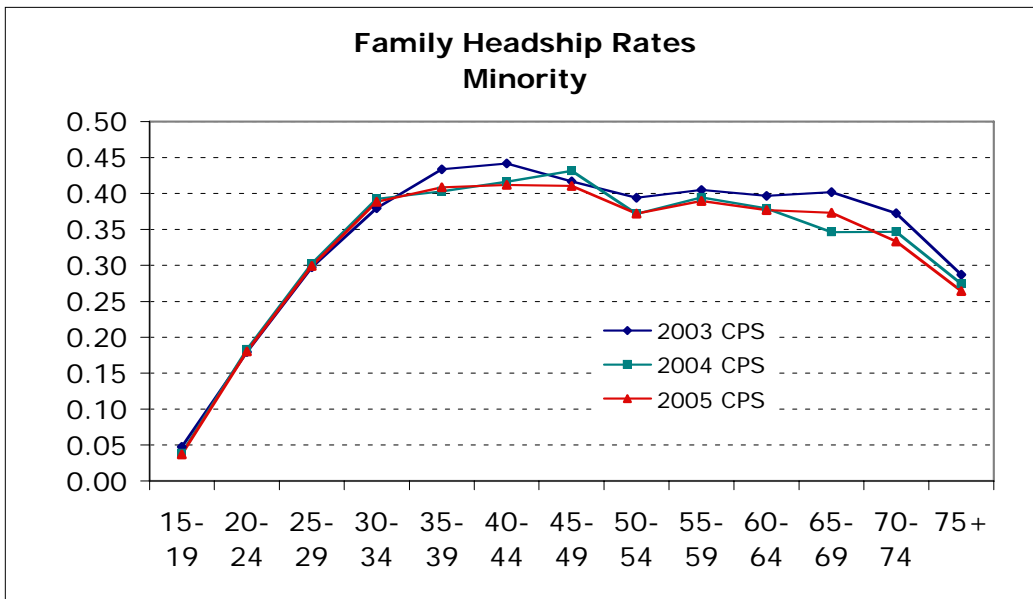
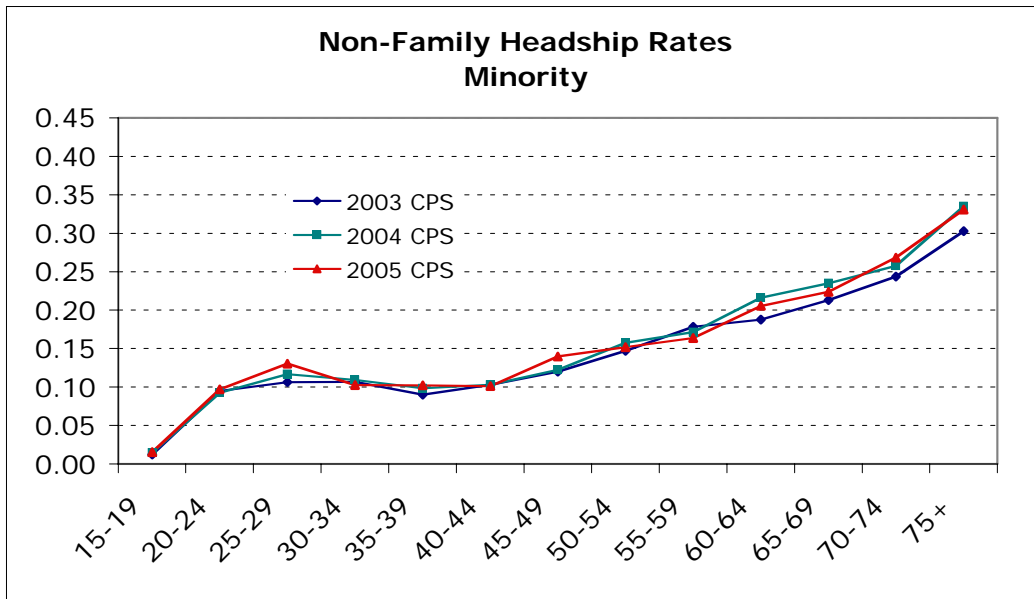


Figure 10



Family Type Trends and Assumptions

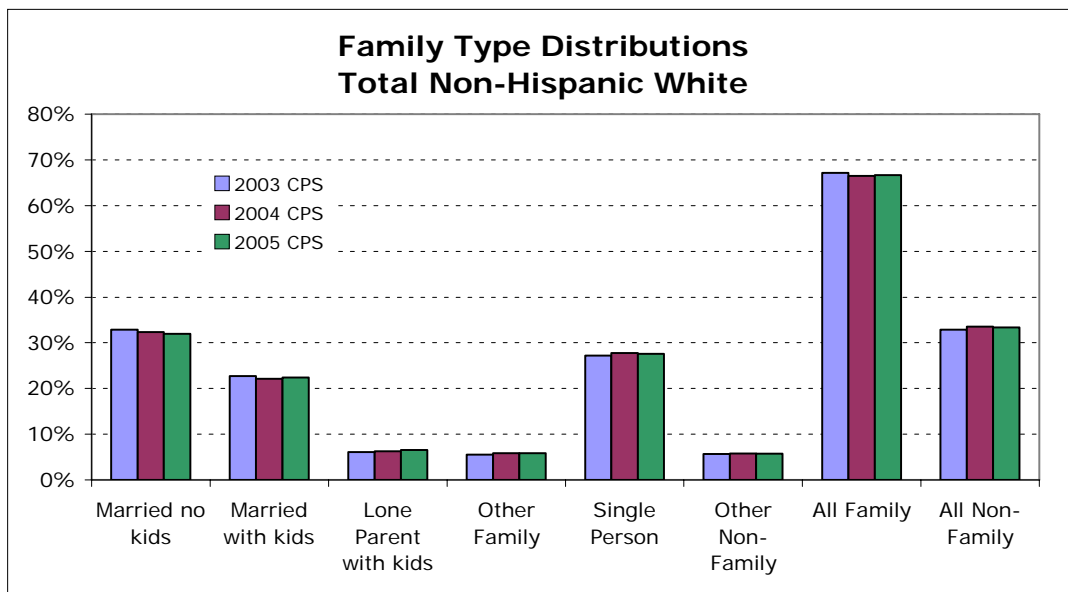
According to present Census Bureau methodology, family households are further disaggregated into married couples with children under 18 living in the household, married couples without minor children, single parents with minor children, and other family living arrangements such as siblings who live together, or adults who live with their parents where the head is unmarried and no minor children of the head are present⁸. Non-family households are disaggregated into single-person households and two-or-more-person households where the members are unrelated (such as unmarried partner households without children, roommates or boarders). The increasing propensity for couples to live together without being formally married, and even to raise children out-of-wedlock, makes the distinction between married couples with children and single parents with children somewhat forced. Likewise, the distinction between married couples without children and partner households without children has also become artificial, especially as many such unmarried couples are purchasing houses and are otherwise demonstrating long-term commitments. Unmarried partner households with “stepchildren” of the head present are not at all uncommon, but are not even recognized as family households in the current Census Bureau typology. For these reasons, the Bureau has

⁸ The CPS counts minor children who are away at college as members of the household. The Census counts such children as residents of group quarters or other households at the place they attend college.

been seriously investigating alternative household typologies.⁹ For our purposes, until a consensus is reached about how to treat unmarried partner households, we continue to use the old 6-division typology.

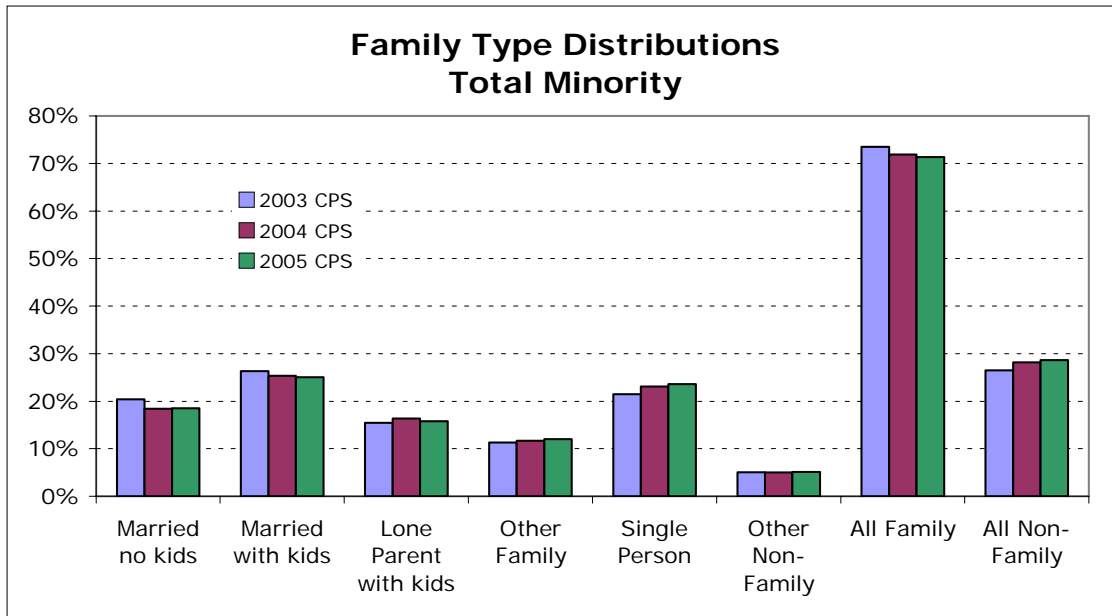
Family type breakdowns for non-Hispanic white and minority headed households in 2003, 2004 and 2005 are given in Figures 11 and 12. Minorities, because of their younger age structures and higher fertility, have a greater share of family households than non-Hispanic whites. There have not been strong trends over this recent time period in the family-type breakdown for either whites or minorities. Examining similar charts separately for 10-year age groups of household heads 15-24, 25-34, ...75+ (not reproduced here) confirms the absence of strong recent trends. For the household projections presented here we have held family type distributions constant at 2005 levels. This calculation was accomplished by first projecting family and non-family households as described above, and then further dividing the family households into four subgroups and the non-family households into two subgroups as defined above. Appendix A provides these detailed projections.

Figure 11



⁹ For a recent analysis and discussion see Frank Hobbs, *Examining American Household Composition: 1990 and 2000*, U.S. Census Bureau, Census 2000 Special Reports, CENSR-24, US Government Printing Office, Washington, DC, 2005.

Figure 12



While the age-specific detailed household breakdowns by minority status are not expected to change much in the near-term future, the overall distribution of family types is expected to shift more markedly as the population ages and as the share of minorities increases. This is because there are strong differences in the detailed family and non-family breakdowns by age and for family households also by minority status. These breakdowns for family households are given in Figures 13 and 14 and in non-family households in Figures 15 and 16.

There is a definite peak in the share of married couple households with minor children at age 35-39 for both whites and minorities. However, minorities have a lower share in this category and higher share of single parents than whites. When household heads are in their early 50s, married couple households with and without minor children are about equally represented and together constitute about 80 percent of white family households and a little less than 70 percent of minority households. After age 50 married couples without minor children at home rises rapidly to reach about 85 percent of all family households at age 60-64. The share of minority family households that are married couples without minor children doesn't rise quite so rapidly, peaking at only 65 percent of all family households at age 60-64. The reason for the lower elderly minority share of married couples is because of their rising share of other family households in middle and old age. These other family households are often multi-generational, a distinctive pattern for today's minority headed households.

Figure 13

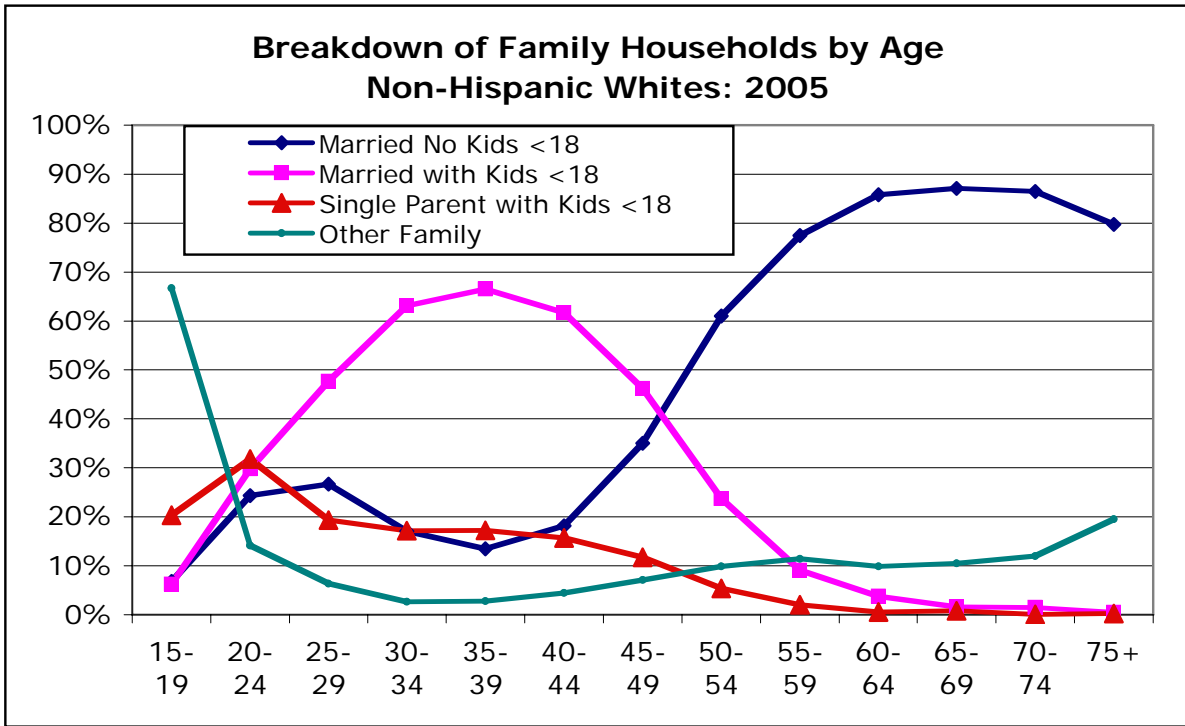


Figure 14

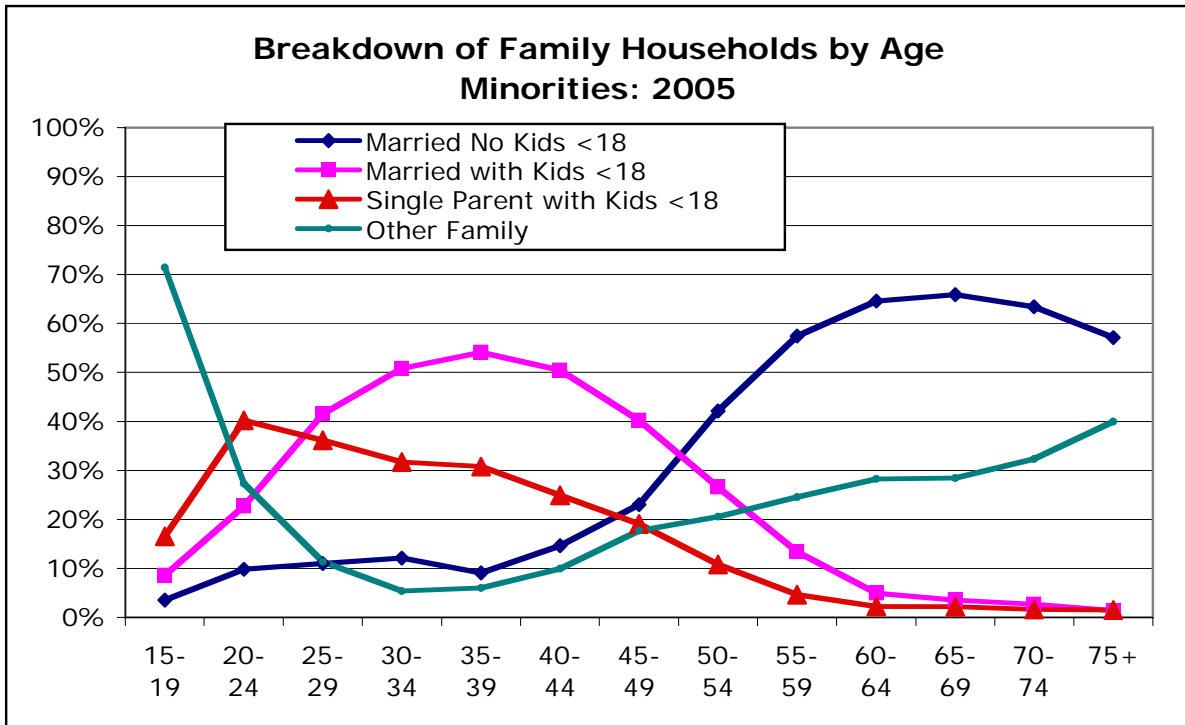


Figure 15

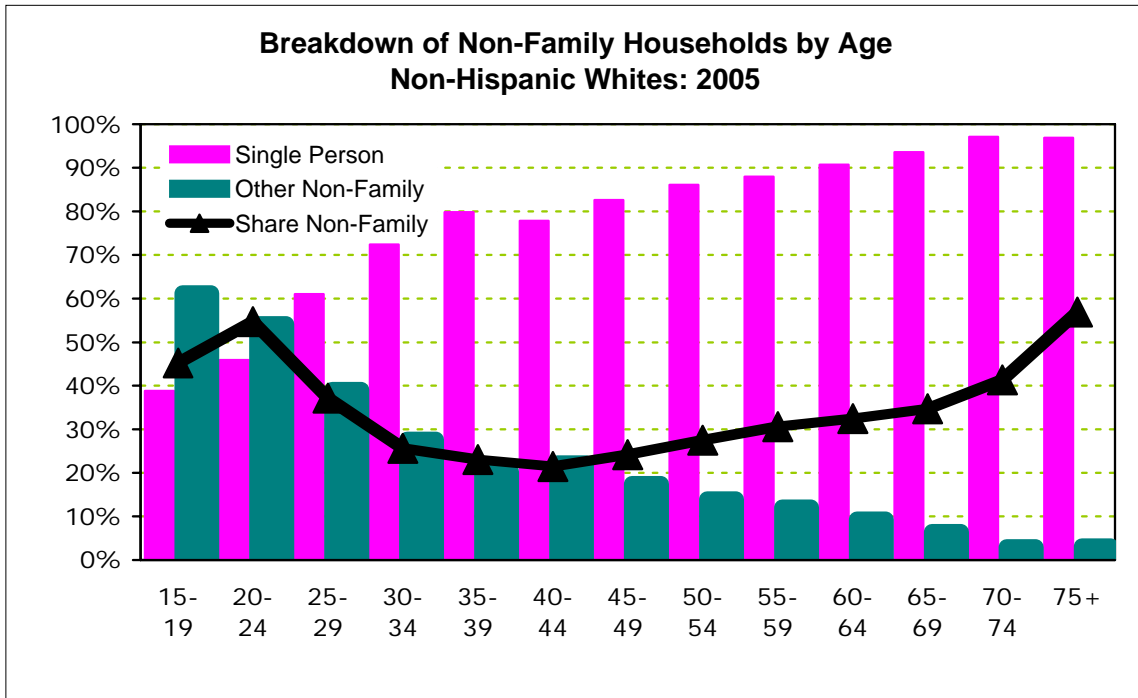
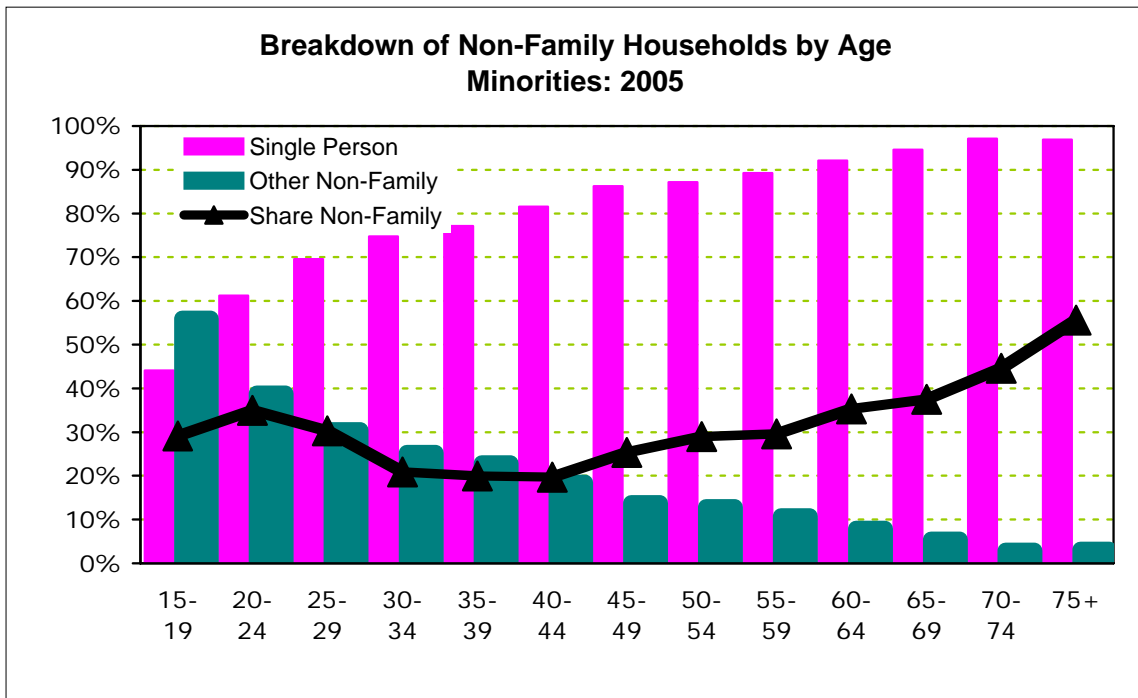


Figure 16



The non-family household breakdown by age into single person households and two-or-more person households is given in the bar charts in Figures 15 and 16. For both whites and minorities, there is a steady increase in the share single person as households age, and there is not much of a difference between whites and minorities in this pattern or in the levels achieved at each age. The line depicted in these charts shows the share of total households that are non-family. Again, the patterns for both whites and minorities are broadly similar, with a slightly higher non-family share for whites in the younger age groups. The shift toward more minority-headed households in the younger age groups will depress the shift toward non-family households overall, but the aging populations of both whites and minorities will drive the upward growth of single person households.

Tenure Trends and Assumptions

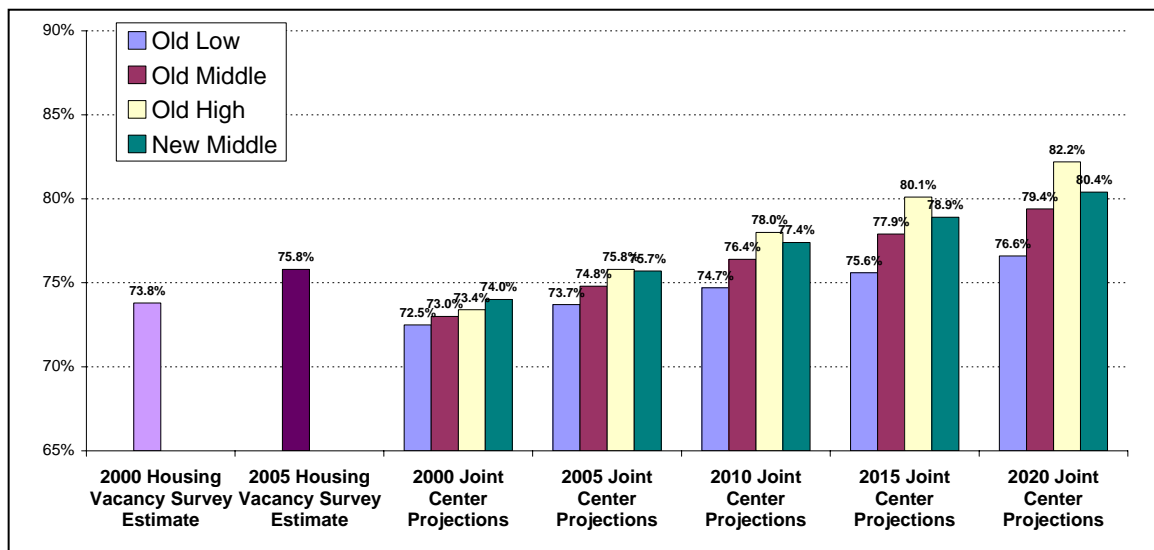
Unlike headship rates, homeownership rates have experienced strong cohort differences in recent years. The last set of household projections for which we released a tenure breakdown was carried out in 2002, and an expanded discussion of the tenure projection methodology was published in 2003. For a full discussion of the tenure projection methodology, the reader is referred to the earlier publication.¹⁰

Two historical periods were selected to model cohort ownership trends – 1990-95 representing low cohort ownership gains and 1993-1998 representing rapid gains. The difference between the two series was quite striking and forced us to conclude that the difference represented uncertainty about the future trends in homeownership. As a “best guess” we chose to average the low and high series to create a middle series. These 2002 calculations are summarized in Figures 17 and 18, which give the low, middle and high homeownership rate projections for non-Hispanic white and for total minority households, respectively. The especially large difference between the high and low series for minorities indicates how sensitive the minority trend was to the early-1990s recession where homeownership rates for minorities were relatively stagnant, and to the mid -1990s economic expansion that resulted in significant minority homeownership gains.

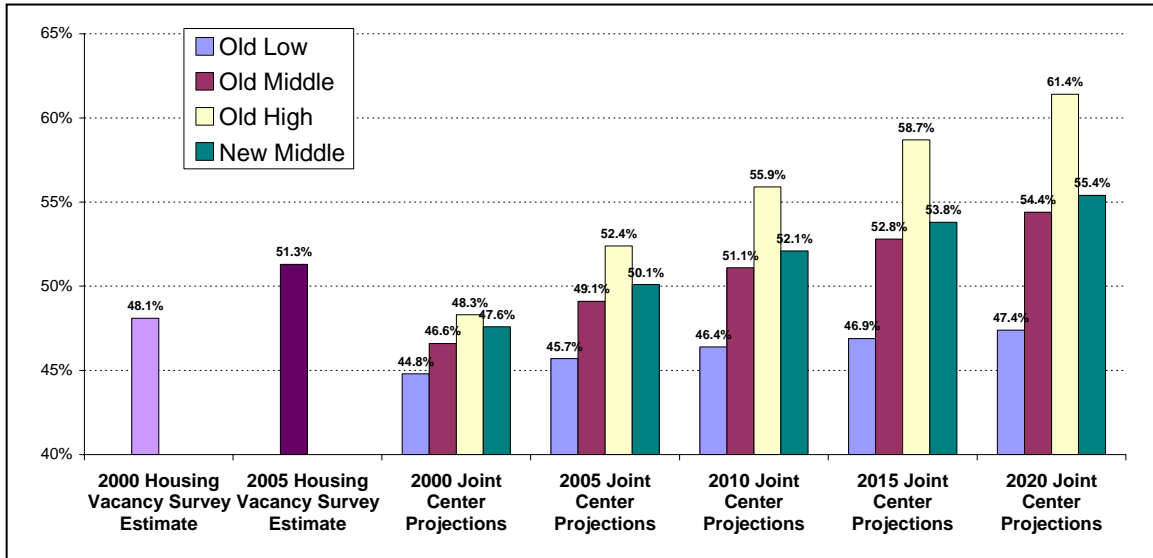
¹⁰ “Projections of U.S. Households by Race/Hispanic Origin, Age, Family Type and Tenure to 2020: A Sensitivity Analysis,” by George S. Masnick and Zhu Xiao Di. Department of Housing and Urban Development Office of Policy Development and Research, *Issue Papers on Demographic Trends Important to Housing*, February 2003 (http://www.huduser.org/publications/econdev/demographic_trends.html). Full detail for the tenure projections for this series can be obtained from a set tables available from the Joint Center for Housing Studies.

Also plotted in Figures 17 and 18 is a series representing the homeownership rate used in our current household projections. Because we are unable to examine cohort trends in homeownership over the 2000-2005 period because of the re-benchmarking of the CPS that took place in 2003, we simply used the old middle series values that we notched up 1 percentage point to close the gap between the current 2005 homeownership rate estimates and our old middle series projections. The two 2005 rates are not identical because the higher immigration numbers used in our population projections would be expected to lower ownership rates somewhat. Future ownership rate trends in the current series again is just a “best guess” in the face of much uncertainty about factors that are expected to influence future homeownership, such as trends in income, interest rates, housing prices and the like.

Figure 17. Homeownership Rate Estimates and Projections for Non-Hispanic White Headed Households



**Figure 18. Homeownership Rate Estimates and Projections
For Minority Headed Households**



Appendix A – Detailed Household Projections by Age, Minority Status and Household Type

Revised 2006 Joint Center Interim Household Projections

(based on 1.2 million annual net immigrants and 2005 headship and family type held constant)

Total Households								
Year	Age	Married No Kids <18	Married With Kids	Single Parent	Other Family	Single Person	Other Non-Family	Total
2000	15-19	36,184	33,190	108,575	356,708	126,862	200,388	861,907
2000	20-24	735,716	900,214	963,323	428,872	1,140,498	1,347,150	5,515,773
2000	25-29	1,550,117	2,769,713	1,124,363	368,011	1,840,877	1,177,187	8,830,269
2000	30-34	1,331,907	4,938,642	1,342,693	208,770	2,045,034	779,656	10,646,702
2000	35-39	1,280,885	6,334,715	1,640,268	264,200	2,108,426	534,121	12,162,616
2000	40-44	1,748,141	5,948,801	1,509,315	426,546	2,026,774	576,393	12,235,970
2000	45-49	2,942,482	3,881,589	984,935	595,624	2,207,452	465,287	11,077,368
2000	50-54	4,378,477	1,700,982	384,579	709,293	2,349,535	379,440	9,902,306
2000	55-59	4,085,620	478,996	108,326	601,298	2,057,517	282,388	7,614,145
2000	60-64	3,703,611	161,657	25,148	427,436	1,931,165	197,919	6,446,936
2000	65-69	3,297,938	59,621	30,738	397,416	1,941,499	132,795	5,860,007
2000	70-74	2,783,422	47,777	2,212	385,780	2,251,483	66,840	5,537,514
2000	75+	3,706,074	23,036	10,699	907,106	5,909,183	189,995	10,746,093
2000	Total	31,580,575	27,278,935	8,235,174	6,077,058	27,936,304	6,329,560	107,437,606

Total Households								
Year	Age	Married No Kids <18	Married With Kids	Single Parent	Other Family	Single Person	Other Non-Family	Total
2005	15-19	38,580	35,388	115,763	380,324	133,055	210,170	913,279
2005	20-24	806,598	986,944	1,056,133	470,191	1,247,831	1,473,931	6,041,628
2005	25-29	1,597,869	2,855,034	1,159,000	379,348	1,882,361	1,203,714	9,077,326
2005	30-34	1,290,585	4,785,424	1,301,037	202,293	1,957,638	746,337	10,283,314
2005	35-39	1,185,303	5,862,004	1,517,868	244,485	1,934,839	490,147	11,234,645
2005	40-44	1,767,489	6,014,640	1,526,019	431,266	2,046,517	582,007	12,367,938
2005	45-49	3,270,718	4,314,582	1,094,805	662,066	2,452,980	517,039	12,312,189
2005	50-54	4,920,686	1,911,623	432,203	797,129	2,642,039	426,678	11,130,359
2005	55-59	5,235,247	613,778	138,808	770,493	2,638,503	362,127	9,758,956
2005	60-64	4,442,310	193,900	30,164	512,690	2,318,563	237,622	7,735,249
2005	65-69	3,502,861	63,326	32,648	422,110	2,069,571	141,555	6,232,071
2005	70-74	2,669,356	45,819	2,121	369,970	2,167,216	64,339	5,318,822
2005	75+	4,013,965	24,950	11,588	982,466	6,393,919	205,580	11,632,468
2005	Total	34,741,567	27,707,412	8,418,156	6,624,830	29,885,030	6,661,248	114,038,244

Appendix A – Detailed Household Projections by Age, Minority Status and Household Type

Revised 2006 Joint Center Interim Household Projections

(based on 1.2 million annual net immigrants and 2005 headship and family type held constant)

Total Households								
Year	Age	Married No Kids <18	Married With Kids	Single Parent	Other Family	Single Person	Other Non-Family	Total
2010	15-19	40,023	36,712	120,095	394,555	134,507	212,465	938,357
2010	20-24	851,005	1,041,280	1,114,279	496,077	1,298,948	1,534,311	6,335,900
2010	25-29	1,745,612	3,119,018	1,266,164	414,423	2,055,005	1,314,116	9,914,338
2010	30-34	1,329,184	4,928,545	1,339,948	208,343	2,005,624	764,631	10,576,275
2010	35-39	1,151,682	5,695,730	1,474,814	237,550	1,863,747	472,137	10,895,660
2010	40-44	1,638,536	5,575,823	1,414,684	399,802	1,893,937	538,615	11,461,397
2010	45-49	3,311,031	4,367,761	1,108,299	670,226	2,482,273	523,213	12,462,803
2010	50-54	5,471,183	2,125,484	480,555	886,307	2,939,281	474,682	12,377,492
2010	55-59	5,894,366	691,052	156,284	867,499	2,973,850	408,153	10,991,203
2010	60-64	5,700,974	248,839	38,711	657,953	2,982,537	305,671	9,934,685
2010	65-69	4,222,128	76,329	39,352	508,785	2,497,417	170,819	7,514,830
2010	70-74	2,861,118	49,111	2,274	396,548	2,329,385	69,153	5,707,589
2010	75+	4,215,919	26,205	12,171	1,031,896	6,707,576	215,665	12,209,433
2010	Total	38,432,761	27,981,891	8,567,627	7,169,965	32,164,087	7,003,631	121,319,962

Total Households								
Year	Age	Married No Kids <18	Married With Kids	Single Parent	Other Family	Single Person	Other Non-Family	Total
2015	15-19	38,741	35,535	116,245	381,909	128,259	202,595	903,284
2015	20-24	869,005	1,063,304	1,137,847	506,570	1,297,499	1,532,599	6,406,823
2015	25-29	1,828,603	3,267,305	1,326,361	434,126	2,137,333	1,366,762	10,360,491
2015	30-34	1,446,920	5,365,106	1,458,638	226,798	2,182,942	832,233	11,512,637
2015	35-39	1,185,842	5,864,672	1,518,559	244,596	1,912,043	484,372	11,210,084
2015	40-44	1,592,340	5,418,622	1,374,799	388,530	1,837,308	522,510	11,134,109
2015	45-49	3,074,429	4,055,647	1,029,101	622,332	2,303,740	485,582	11,570,831
2015	50-54	5,539,551	2,152,044	486,561	897,382	2,978,238	480,973	12,534,749
2015	55-59	6,560,368	769,134	173,942	965,517	3,313,279	454,738	12,236,978
2015	60-64	6,422,272	280,322	43,609	741,198	3,371,348	345,519	11,204,268
2015	65-69	5,429,072	98,148	50,601	654,227	3,220,759	220,294	9,673,101
2015	70-74	3,465,538	59,486	2,754	480,320	2,823,873	83,833	6,915,804
2015	75+	4,494,631	27,938	12,975	1,100,114	7,142,042	229,634	13,007,334
2015	Total	41,947,311	28,457,264	8,731,990	7,643,620	34,648,662	7,241,645	128,670,493

Appendix A – Detailed Household Projections by Age, Minority Status and Household Type

Revised 2006 Joint Center Interim Household Projections

(based on 1.2 million annual net immigrants and 2005 headship and family type held constant)

Total Households		Married		Single	Other	Single	Other	Total
Year	Age	No Kids <18	With Kids	Parent	Family	Person	Non-Family	
2020	15-19	41,741	38,287	125,247	411,483	136,034	214,875	967,667
2020	20-24	835,817	1,022,696	1,094,391	487,223	1,230,828	1,453,849	6,124,804
2020	25-29	1,851,855	3,308,852	1,343,226	439,647	2,138,080	1,367,240	10,448,900
2020	30-34	1,513,102	5,610,505	1,525,356	237,171	2,272,287	866,295	12,024,716
2020	35-39	1,288,741	6,373,568	1,650,329	265,820	2,077,950	526,401	12,182,809
2020	40-44	1,639,279	5,578,350	1,415,325	399,983	1,890,086	537,520	11,460,542
2020	45-49	2,991,306	3,945,995	1,001,277	605,507	2,240,319	472,215	11,256,619
2020	50-54	5,148,064	1,999,957	452,175	833,963	2,770,514	447,426	11,652,098
2020	55-59	6,654,055	780,118	176,426	979,305	3,365,237	461,869	12,417,010
2020	60-64	7,154,155	312,268	48,578	825,665	3,768,078	386,179	12,494,923
2020	65-69	6,131,628	110,849	57,149	738,889	3,653,636	249,903	10,942,054
2020	70-74	4,474,537	76,805	3,556	620,166	3,654,047	108,479	8,937,591
2020	75+	5,109,834	31,762	14,751	1,250,693	8,111,794	260,814	14,779,648
2020	Total	44,834,113	29,190,011	8,907,786	8,095,516	37,308,892	7,353,063	135,689,381

Appendix A – Detailed Household Projections by Age, Minority Status and Household Type

Revised 2006 Joint Center Interim Household Projections

(based on 1.2 million annual net immigrants and 2005 headship and family type held constant)

Non-Hispanic White Alone Households								
Year	Age	Married No Kids <18	Married With Kids	Single Parent	Other Family	Single Person	Other Non-Family	Total
2000	15-19	17,559	16,106	52,688	173,100	83,152	131,346	473,951
2000	20-24	413,900	506,444	541,948	241,275	813,432	960,823	3,477,822
2000	25-29	964,125	1,722,675	699,319	228,892	1,303,013	833,238	5,751,261
2000	30-34	879,964	3,262,862	887,090	137,930	1,464,847	558,464	7,191,157
2000	35-39	886,828	4,385,877	1,135,649	182,920	1,539,287	389,943	8,520,505
2000	40-44	1,266,417	4,309,528	1,093,403	309,005	1,483,163	421,796	8,883,312
2000	45-49	2,197,768	2,899,196	735,657	444,877	1,653,228	348,467	8,279,193
2000	50-54	3,390,754	1,317,265	297,823	549,287	1,810,734	292,426	7,658,289
2000	55-59	3,224,791	378,073	85,502	474,606	1,610,500	221,037	5,994,509
2000	60-64	2,953,945	128,935	20,058	340,916	1,499,042	153,632	5,096,529
2000	65-69	2,687,917	48,593	25,052	323,906	1,530,722	104,699	4,720,889
2000	70-74	2,345,605	40,262	1,864	325,099	1,855,624	55,088	4,623,542
2000	75+	3,216,484	19,993	9,286	787,273	5,164,894	166,064	9,363,993
2000	Total	24,446,058	19,035,808	5,585,339	4,519,086	21,811,639	4,637,022	80,034,952

Non-Hispanic White Alone Households								
Year	Age	Married No Kids <18	Married With Kids	Single Parent	Other Family	Single Person	Other Non-Family	Total
2005	15-19	17,798	16,326	53,405	175,456	84,284	133,134	480,403
2005	20-24	451,093	551,953	590,647	262,956	886,527	1,047,161	3,790,337
2005	25-29	958,714	1,713,008	695,394	227,607	1,295,701	828,562	5,718,986
2005	30-34	789,787	2,928,490	796,183	123,795	1,314,733	501,234	6,454,223
2005	35-39	764,887	3,782,806	979,494	157,768	1,327,630	336,325	7,348,911
2005	40-44	1,217,440	4,142,861	1,051,116	297,055	1,425,803	405,483	8,539,758
2005	45-49	2,353,689	3,104,880	787,849	476,439	1,770,517	373,190	8,866,564
2005	50-54	3,675,643	1,427,940	322,846	595,437	1,962,870	316,995	8,301,731
2005	55-59	4,029,873	472,460	106,848	593,093	2,012,569	276,220	7,491,064
2005	60-64	3,510,928	153,247	23,840	405,198	1,781,695	182,600	6,057,508
2005	65-69	2,783,382	50,319	25,942	335,410	1,585,088	108,417	4,888,558
2005	70-74	2,178,721	37,398	1,731	301,969	1,723,601	51,169	4,294,589
2005	75+	3,411,407	21,205	9,848	834,983	5,477,893	176,128	9,931,464
2005	Total	26,143,363	18,402,892	5,445,145	4,787,167	22,648,912	4,736,617	82,164,096

Appendix A – Detailed Household Projections by Age, Minority Status and Household Type

Revised 2006 Joint Center Interim Household Projections

(based on 1.2 million annual net immigrants and 2005 headship and family type held constant)

Non-Hispanic White Alone Households								
Year	Age	Married No Kids <18	Married With Kids	Single Parent	Other Family	Single Person	Other Non-Family	Total
2010	15-19	16,988	15,582	50,974	167,467	80,447	127,072	458,530
2010	20-24	457,400	559,670	598,905	266,633	898,923	1,061,803	3,843,335
2010	25-29	1,044,125	1,865,618	757,347	247,884	1,411,133	902,378	6,228,485
2010	30-34	785,678	2,913,253	792,040	123,151	1,307,893	498,625	6,420,640
2010	35-39	687,562	3,400,389	880,474	141,819	1,193,416	302,324	6,605,983
2010	40-44	1,051,980	3,579,815	908,262	256,683	1,232,026	350,375	7,379,141
2010	45-49	2,265,331	2,988,322	758,273	458,553	1,704,051	359,180	8,533,710
2010	50-54	3,941,565	1,531,247	346,203	638,516	2,104,878	339,929	8,902,338
2010	55-59	4,378,237	513,302	116,085	644,364	2,186,547	300,097	8,138,632
2010	60-64	4,403,550	192,208	29,901	508,216	2,234,675	229,025	7,597,576
2010	65-69	3,327,123	60,149	31,010	400,933	1,894,738	129,597	5,843,550
2010	70-74	2,277,910	39,100	1,810	315,716	1,802,069	53,499	4,490,105
2010	75+	3,489,060	21,687	10,072	853,989	5,602,584	180,137	10,157,530
2010	Total	28,126,511	17,680,343	5,281,356	5,023,924	23,653,379	4,834,042	84,599,555

Non-Hispanic White Alone Households								
Year	Age	Married No Kids <18	Married With Kids	Single Parent	Other Family	Single Person	Other Non-Family	Total
2015	15-19	15,632	14,339	46,907	154,106	74,028	116,934	421,946
2015	20-24	436,597	534,215	571,666	254,506	858,038	1,013,510	3,668,532
2015	25-29	1,058,312	1,890,967	767,637	251,253	1,430,307	914,640	6,313,116
2015	30-34	854,390	3,168,033	861,309	133,921	1,422,275	542,233	6,982,160
2015	35-39	683,987	3,382,711	875,896	141,082	1,187,211	300,753	6,571,640
2015	40-44	946,576	3,221,132	817,257	230,964	1,108,582	315,269	6,639,781
2015	45-49	1,959,680	2,585,121	655,962	396,683	1,474,132	310,717	7,382,295
2015	50-54	3,796,788	1,475,003	333,487	615,062	2,027,564	327,443	8,575,348
2015	55-59	4,701,113	551,156	124,646	691,883	2,347,794	322,228	8,738,819
2015	60-64	4,794,548	209,275	32,556	553,341	2,433,095	249,360	8,272,175
2015	65-69	4,187,498	75,703	39,029	504,612	2,384,707	163,110	7,354,659
2015	70-74	2,737,918	46,996	2,176	379,473	2,165,985	64,302	5,396,850
2015	75+	3,614,863	22,469	10,436	884,781	5,804,594	186,632	10,523,775
2015	Total	29,787,903	17,177,120	5,138,963	5,191,666	24,718,312	4,827,131	86,841,096

Appendix A – Detailed Household Projections by Age, Minority Status and Household Type

Revised 2006 Joint Center Interim Household Projections

(based on 1.2 million annual net immigrants and 2005 headship and family type held constant)

		Non-Hispanic White Alone Households						Total
Year	Age	Married No Kids <18	Married With Kids	Single Parent	Other Family	Single Person	Other Non-Family	
2020	15-19	15,940	14,621	47,829	157,134	75,483	119,232	430,238
2020	20-24	401,884	491,741	526,214	234,271	789,818	932,929	3,376,858
2020	25-29	1,010,819	1,806,107	733,188	239,977	1,366,120	873,593	6,029,804
2020	30-34	865,897	3,210,702	872,909	135,725	1,441,431	549,536	7,076,200
2020	35-39	743,316	3,676,125	951,871	153,319	1,290,189	326,840	7,141,660
2020	40-44	942,131	3,206,005	813,419	229,879	1,103,376	313,788	6,608,598
2020	45-49	1,765,276	2,328,672	590,890	357,331	1,327,894	279,894	6,649,957
2020	50-54	3,288,709	1,277,621	288,860	532,756	1,756,239	283,625	7,427,810
2020	55-59	4,534,677	531,643	120,233	667,388	2,264,674	310,820	8,429,434
2020	60-64	5,159,193	225,191	35,032	595,425	2,618,142	268,325	8,901,309
2020	65-69	4,574,518	82,699	42,636	551,250	2,605,108	178,185	8,034,396
2020	70-74	3,464,345	59,465	2,753	480,155	2,740,666	81,363	6,828,747
2020	75+	4,018,266	24,977	11,600	983,518	6,452,360	207,459	11,698,180
2020	Total	30,784,970	16,935,569	5,037,434	5,318,128	25,831,500	4,725,589	88,633,191

Appendix A – Detailed Household Projections by Age, Minority Status and Household Type

Revised 2006 Joint Center Interim Household Projections

(based on 1.2 million annual net immigrants and 2005 headship and family type held constant)

		Total Minority Households						
Year	Age	Married No Kids <18	Married With Kids	Single Parent	Other Family	Single Person	Other Non-Family	Total
2000	15-19	18,625	17,084	55,887	183,608	43,710	69,042	387,956
2000	20-24	321,816	393,770	421,375	187,596	327,065	386,328	2,037,951
2000	25-29	585,993	1,047,038	425,044	139,120	537,864	343,949	3,079,008
2000	30-34	451,943	1,675,781	455,603	70,840	580,187	221,192	3,455,545
2000	35-39	394,057	1,948,838	504,619	81,280	569,139	144,178	3,642,111
2000	40-44	481,724	1,639,273	415,912	117,540	543,611	154,597	3,352,658
2000	45-49	744,714	982,393	249,278	150,747	554,225	116,819	2,798,175
2000	50-54	987,722	383,717	86,756	160,007	538,801	87,014	2,244,017
2000	55-59	860,829	100,923	22,824	126,692	447,016	61,352	1,619,636
2000	60-64	749,666	32,722	5,090	86,519	432,123	44,287	1,350,407
2000	65-69	610,021	11,028	5,686	73,510	410,777	28,096	1,139,118
2000	70-74	437,817	7,515	348	60,681	395,859	11,752	913,972
2000	75+	489,590	3,043	1,413	119,833	744,289	23,931	1,382,100
2000	Total	7,134,517	8,243,126	2,649,835	1,557,973	6,124,665	1,692,538	27,402,654

		Total Minority Households						
Year	Age	Married No Kids <18	Married With Kids	Single Parent	Other Family	Single Person	Other Non-Family	Total
2005	15-19	20,782	19,062	62,358	204,868	48,770	77,037	432,876
2005	20-24	355,505	434,991	465,486	207,235	361,304	426,770	2,251,291
2005	25-29	639,155	1,142,027	463,605	151,741	586,660	375,152	3,358,340
2005	30-34	500,798	1,856,934	504,854	78,498	642,905	245,103	3,829,091
2005	35-39	420,416	2,079,198	538,373	86,716	607,209	153,822	3,885,734
2005	40-44	550,049	1,871,778	474,903	134,212	620,714	176,524	3,828,180
2005	45-49	917,028	1,209,702	306,956	185,627	682,463	143,849	3,445,625
2005	50-54	1,245,044	483,684	109,357	201,691	679,169	109,683	2,828,628
2005	55-59	1,205,374	141,317	31,959	177,400	625,933	85,908	2,267,892
2005	60-64	931,382	40,653	6,324	107,491	536,868	55,022	1,677,741
2005	65-69	719,479	13,007	6,706	86,700	484,483	33,138	1,343,513
2005	70-74	490,635	8,422	390	68,002	443,615	13,170	1,024,233
2005	75+	602,558	3,745	1,740	147,483	916,026	29,452	1,701,004
2005	Total	8,598,204	9,304,520	2,973,011	1,837,664	7,236,118	1,924,631	31,874,148

Appendix A – Detailed Household Projections by Age, Minority Status and Household Type

Revised 2006 Joint Center Interim Household Projections

(based on 1.2 million annual net immigrants and 2005 headship and family type held constant)

Total Minority Households		Married	Married	Single	Other	Single	Other	Total
Year	Age	No Kids <18	With Kids	Parent	Family	Person	Non-Family	
2010	15-19	23,036	21,130	69,121	227,088	54,060	85,393	479,827
2010	20-24	393,605	481,610	515,373	229,444	400,025	472,508	2,492,565
2010	25-29	701,487	1,253,400	508,817	166,539	643,872	411,738	3,685,853
2010	30-34	543,506	2,015,293	547,908	85,192	697,731	266,006	4,155,635
2010	35-39	464,120	2,295,342	594,340	95,731	670,331	169,813	4,289,677
2010	40-44	586,556	1,996,008	506,422	143,119	661,911	188,240	4,082,256
2010	45-49	1,045,700	1,379,439	350,026	211,673	778,221	164,034	3,929,093
2010	50-54	1,529,618	594,237	134,352	247,791	834,403	134,753	3,475,154
2010	55-59	1,516,128	177,750	40,199	223,135	787,304	108,055	2,852,571
2010	60-64	1,297,424	56,631	8,810	149,736	747,862	76,646	2,337,109
2010	65-69	895,005	16,180	8,342	107,852	602,679	41,222	1,671,280
2010	70-74	583,208	10,011	463	80,832	527,315	15,655	1,217,484
2010	75+	726,859	4,518	2,098	177,907	1,104,992	35,528	2,051,903
2010	Total	10,306,251	10,301,548	3,286,271	2,146,040	8,510,708	2,169,589	36,720,407

Total Minority Households		Married	Married	Single	Other	Single	Other	Total
Year	Age	No Kids <18	With Kids	Parent	Family	Person	Non-Family	
2015	15-19	23,108	21,196	69,339	227,803	54,231	85,661	481,338
2015	20-24	432,408	529,089	566,181	252,064	439,461	519,089	2,738,291
2015	25-29	770,291	1,376,338	558,724	182,874	707,026	452,122	4,047,375
2015	30-34	592,531	2,197,074	597,329	92,876	760,667	290,000	4,530,477
2015	35-39	501,855	2,481,961	642,662	103,514	724,832	183,619	4,638,444
2015	40-44	645,764	2,197,489	557,541	157,566	728,725	207,242	4,494,328
2015	45-49	1,114,749	1,470,526	373,139	225,650	829,608	174,865	4,188,536
2015	50-54	1,742,763	677,041	153,074	282,320	950,674	153,530	3,959,401
2015	55-59	1,859,255	217,978	49,296	273,634	965,485	132,510	3,498,159
2015	60-64	1,627,724	71,048	11,053	187,857	938,253	96,159	2,932,093
2015	65-69	1,241,573	22,445	11,572	149,615	836,052	57,184	2,318,442
2015	70-74	727,620	12,490	578	100,847	657,888	19,531	1,518,954
2015	75+	879,767	5,468	2,540	215,334	1,337,448	43,002	2,483,559
2015	Total	12,159,408	11,280,144	3,593,027	2,451,954	9,930,350	2,414,514	41,829,397

Appendix A – Detailed Household Projections by Age, Minority Status and Household Type

Revised 2006 Joint Center Interim Household Projections

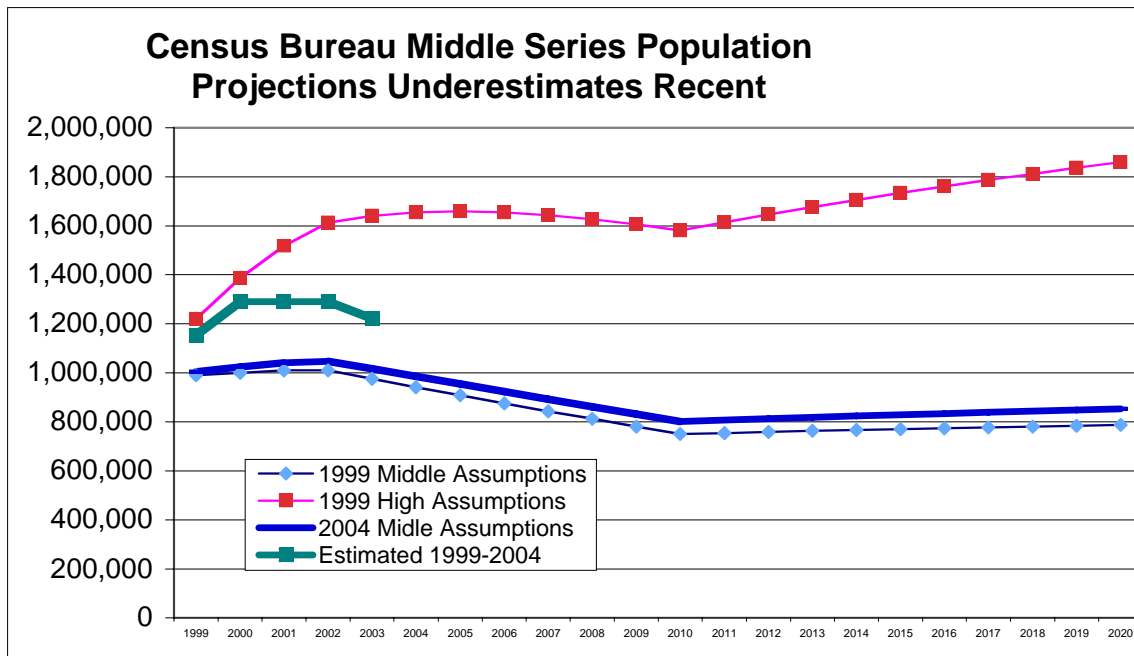
(based on 1.2 million annual net immigrants and 2005 headship and family type held constant)

Total Minority Households		Married	Married	Single	Other	Single	Other	Total
Year	Age	No Kids <18	With Kids	Parent	Family	Person	Non-Family	
2020	15-19	25,801	23,666	77,419	254,349	60,550	95,644	537,429
2020	20-24	433,932	530,955	568,177	252,953	441,010	520,920	2,747,946
2020	25-29	841,037	1,502,745	610,038	199,669	771,961	493,646	4,419,096
2020	30-34	647,205	2,399,803	652,446	101,446	830,856	316,759	4,948,516
2020	35-39	545,425	2,697,443	698,458	112,501	787,761	199,561	5,041,149
2020	40-44	697,148	2,372,345	601,905	170,104	786,710	223,732	4,851,944
2020	45-49	1,226,030	1,617,323	410,388	248,176	912,425	192,321	4,606,662
2020	50-54	1,859,355	722,336	163,314	301,207	1,014,275	163,801	4,224,288
2020	55-59	2,119,378	248,475	56,193	311,918	1,100,563	151,049	3,987,576
2020	60-64	1,994,961	87,077	13,546	230,240	1,149,937	117,853	3,593,614
2020	65-69	1,557,111	28,150	14,513	187,639	1,048,528	71,718	2,907,658
2020	70-74	1,010,193	17,340	803	140,012	913,381	27,116	2,108,844
2020	75+	1,091,568	6,785	3,151	267,174	1,659,434	53,355	3,081,468
2020	Total	14,049,144	12,254,441	3,870,352	2,777,387	11,477,392	2,627,474	47,056,190

Appendix B – Higher Immigration Assumptions

The 2004 Census Bureau Interim population projections assumed levels of net immigration that are well below both recent estimates and likely future trends. The Bureau’s 2004 Interim assumptions increased immigration levels ever so slightly above the middle series assumptions in their previous (1999) population projections. These immigration assumptions are well below immigration levels estimated to have been taking place since 2000 (Figure B-1).

Figure B-1



In the household projections reported here, we have adjusted the Census Bureau’s Interim 2004 population projections to allow for a constant level of annual net immigration of 1.2 million. Of this total, 200,000 are non-Hispanic white and 1.0 million are minority. We were able to accomplish this adjustment because the Bureau’s 2004 middle series assumptions were a simple formula adjustment to the Bureau’s 1999 assumptions, and the population projections released in 1999 also contained a zero immigration series. This allowed us to calculate the number of net immigrants by age and minority status added to the population growth each year in the 2004 projections. The formula used by the Bureau to adjust the 1999 projections was

($New = .938 * 1999Middle + .062 * 1999High$). This formula was applied to all age groups and to both race/Hispanic origin groups.

Once the age pattern of the 2004 Interim immigration assumptions was thus determined, the numbers were ratio-adjusted upward to 200,000 total for non-Hispanic whites and to 1.0 million for minorities. Differences between this new assumption for each age group for each race/Hispanic origin group and the calculated 2004 assumptions were derived, and these differences were added to the 2004 Interim population projection numbers.

After the immigration adjustments were made for a given projection year, the adjustments were carried forward and aged without mortality and without an impact on fertility. Since most adjustments were to the young adult age groups, the assumption of zero mortality only slightly overestimates the impact that the neglected mortality would have on population growth in the short run, as long as the projections do not reach too far into the future. Likewise, an assumption of zero fertility of the additional immigrants would surely affect population growth numbers, but only in the pre-adult age groups as long as the projections do not extend too far forward in time. We have limited the projection period from 2000 to 2020 for these reasons. After 2020, the additional immigrants added to the population projections at the beginning of the projection period would begin to die out in larger numbers, and their children born in the United States would begin to enter the young adult age groups where household formation typically takes place.

The cumulative numbers of male and female immigrants added by 2020 to the Census Bureau's Interim population projections are shown in Figures B-2 for minorities and B-3 for non-Hispanic whites. While the vast majority of these added immigrants are under age 65 in 2020, clearly there are a significant number over the age of 65, so the assumption of zero mortality does begin to distort the impact of added immigration on household formation that far into the future.

Note also that immigrants are dominated by females. While there is a slight advantage to immigrant males in the younger age groups, the female advantage in the middle and older age groups comes about from three forces. First, in the middle age groups females are more likely to come to the United States to find employment in service sector jobs, including domestic service. Second, females who immigrate are also more likely to stay in this country for two reasons: They are more likely to marry U.S. citizens if they arrive unattached, and they are likely to stay

if they have children born in the United States. Unmarried males, or males who are not co-resident with their U.S. born children, are more likely to return to their country of origin. Third, males have higher mortality levels, and while this factor was not considered in the adjustments we used, it does skew immigrants in the older ages toward females.

The assumption of no mortality for the additional immigrants begins to push up against reality given the substantial number of females over the age of 60 in Figure B-2. However, many immigrant females in the older ages are not heads of their own households but live with their relatives, limiting the effect that unaccounted for mortality will have on household counts. Still, by 2020 our revised projection methodology that assumes no mortality and no fertility for the immigrants we have added begins to break down.

Figure B-2

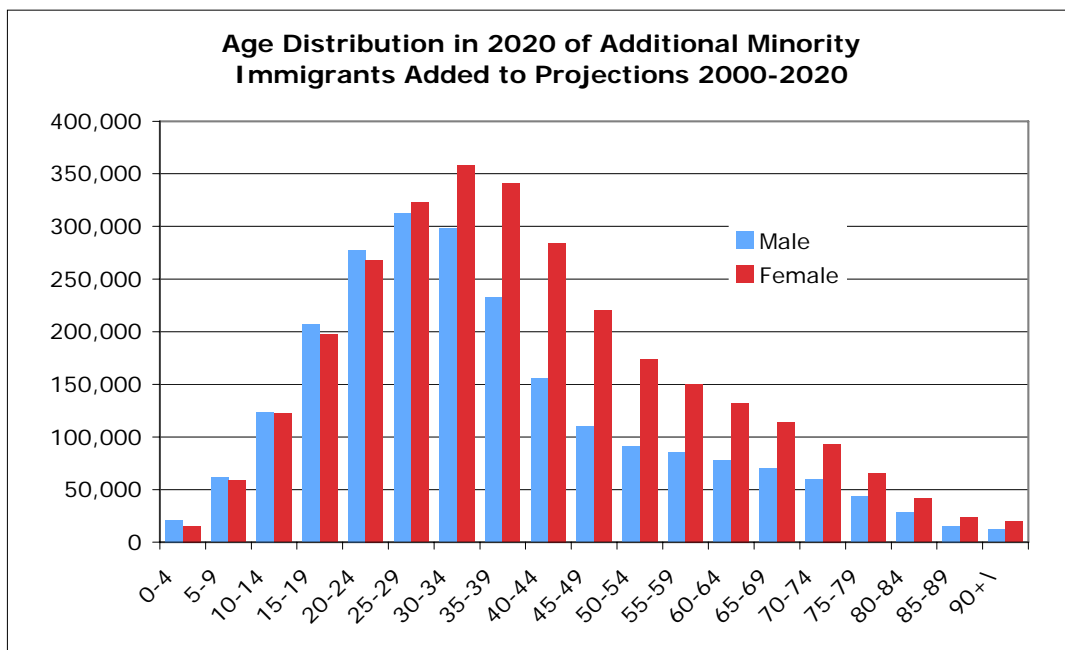


Figure B-3

