

Sustainable Homeownership

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I. Introduction

Rapidly changing credit and housing market conditions of the past fifteen years have markedly impacted homeownership rates. Homeownership rates in the United States have increased steadily and significantly from 1995 to 2004, from 64 percent to 69 percent. No additional increase in homeownership, in the aggregate, occurred with the expansion of nonprime lending after 2004.¹ By year-end 2008, the overall U.S. homeownership rate had fallen to a level below that of 2002.² As delinquencies and foreclosures mount, putting the nation's homeowners and the economy at risk, homeownership rates continue to decline.

How does one explain this reversal of fortune? Recent research by the authors and others emphasizes the role of structural changes in mortgage markets, characterized by the extension of nonprime credit, the progressive weakening of layered credit standards, mispriced risk, and misaligned incentives, leading ultimately to the current mortgage meltdown. As Green and Wachter (2005, 2008) note, after decades in which securitization contributed to the stability of the mortgage system and increased access to mortgage lending in the U.S., there was a major shift in how secondary markets priced risk. Research by Pavlov and Wachter (2007, 2008), Courchane and Zorn (2008), Ashcraft and Schuermann (2008) and others indicate possible roles of incomplete markets, inefficient and mispriced risk, and moral hazard in triggering the current housing crisis.

Clearly, a long-term goal of policy makers in the U.S. has been the reduction of financial barriers to homeownership, for example, through implementation of the Community Reinvestment Act (CRA) and through the affordable housing goals set by the Department of Housing and Urban Development (HUD) for the government sponsored entities (GSEs) Fannie Mae and Freddie Mac.³ The current policy focus should be on 'sustainable' homeownership – keeping borrowers in the homes they purchase. Lessons learned from the past decade will contribute to achieving that sustainability.

We review the evidence pertaining to homeownership rates, explore the possible role of financial institutions in increasing homeownership in sustainable and unsustainable ways, and address the role of regulation. We review evidence suggesting how flexible lending initiatives have expanded access to homeownership. We also examine the role of nonprime lending and the consequences of housing market price instability for

¹ Throughout this paper we generally refer to subprime and Alt-A markets as 'nonprime.' When referring to statistics based on Home Mortgage Disclosure Act data, we refer to 'subprime' based on lender designation. For HMDA, Alt-A loans cannot be separately distinguished. Homeownership rates did increase for Hispanics and Asians after 2004.

² U.S. Census Bureau's Housing Vacancy Survey, Annual Statistics, Table 22, last accessed March 18, 2009 at <http://www.census.gov/hhes/www/housing/hvs/annual08/ann08t22.xls>

³ Green (2009) and many others note reasons for this policy goal relate to the social benefits identified as associated with homeownership including wealth building, neighborhood outcomes such as reduced crime and more political involvement and improved education for children.

homeownership. Fluctuations in the availability of credit for homeownership, and the global credit market collapse raise questions that we cannot answer here about the mistakes that have contributed to the current housing crisis. Nonetheless, evidence on market outcomes allows us at least to raise such questions, and explore the role of regulation in supporting responsible mortgage lending that encourages sustainable homeownership.

II. Homeownership Rates

Homeownership rates have been, particularly since the Great Depression, a public policy concern in the U.S. Much research has emphasized the public policy rationales for homeownership preferences (Green 2009). An additional rationale offered by Sinai and Souleles. (2008), which is particularly salient if below median household incomes do not keep pace with economic growth, is that homeownership is a hedge against rent changes,

In the U.S. the discussion about homeownership has often focused on “homeownership gaps.” This in part derives from differential homeownership rates across racial and ethnic groups. Data from the U.S. Census Bureau’s Housing Vacancy Survey on total homeownership rates and homeownership rates by race and ethnicity for 1994 through 2007 are provided in Table 1. Homeownership rates by income quintile for 1995 through 2007, from the Current Population Survey’s (CPS) Annual Social and Economic Supplement, are shown in Table 2. These data indicate persistent gaps between non-Hispanic white and minority households and between lower and upper income segments.⁴ Other researchers have also noted persistent gaps.⁵

Importantly, the trend in homeownership rates in the aggregate and for all groups rose from 1994 through 2004. The total homeownership rate rose steadily from 64.0 percent at the end of 1994 to 66.8 percent in 1999, when it declined with the national recession, to 67.4 percent and then rose again steadily to 69.0 percent in 2004. The major shift in homeownership from 64 percent to 68.3 percent occurred from 1994 to 2003. The increase in homeownership rates occurred for all groups. After peaking at 69 percent in 2004, the total homeownership rate declined to 68.1 percent in 2007, and the most recent data show the rate falling back to the 67.9 percent level of 2002.

⁴ Gaps in homeownership rates are as measured by the Housing Vacancy Survey.

⁵ Herbert, Haurin, Rosenthal, and Duda (2005) find, for example, that the homeownership rate in 2004 for very low-income households (those with incomes below 50 percent of area median income) was 50.9 percent, compared to 87.7 percent for high-income households (above 120 percent of area median income).

Table 1
Homeownership Rates by Race and Ethnicity of Households
1994 - 2008

Year	U.S. Total	Non-Hispanic White	Black	Asian or Pacific	Hispanic
1994	64.0	70.0	42.3	51.3	41.2
1995	64.7	70.9	42.7	50.8	42.1
1996	65.4	71.7	44.1	50.8	42.8
1997	65.7	72.0	44.8	52.8	43.3
1998	66.3	72.6	45.6	52.6	44.7
1999	66.8	73.2	46.3	53.1	45.5
2000	67.4	73.8	47.2	52.8	46.3
2001	67.8	74.3	47.7	53.9	47.3
2002	67.9	74.7	47.4	54.6	47.0
2003	68.3	75.4	48.1	56.3	46.7
2004	69.0	76.0	49.1	59.8	48.1
2005	68.9	75.8	48.2	60.1	49.5
2006	68.8	75.8	47.9	60.8	49.7
2007	68.1	75.2	47.2	60.0	49.7
2008	67.8	75.0	47.4	59.5	49.1

Source: U.S. Census Bureau's Housing Vacancy Survey, Annual Statistics, Table 22, last accessed at <http://www.census.gov/hhes/www/housing/hvs/annual08/ann08t22.xls>

Table 2
Percent Distribution of Households that are Homeowners, by
Quintile
1995-2007

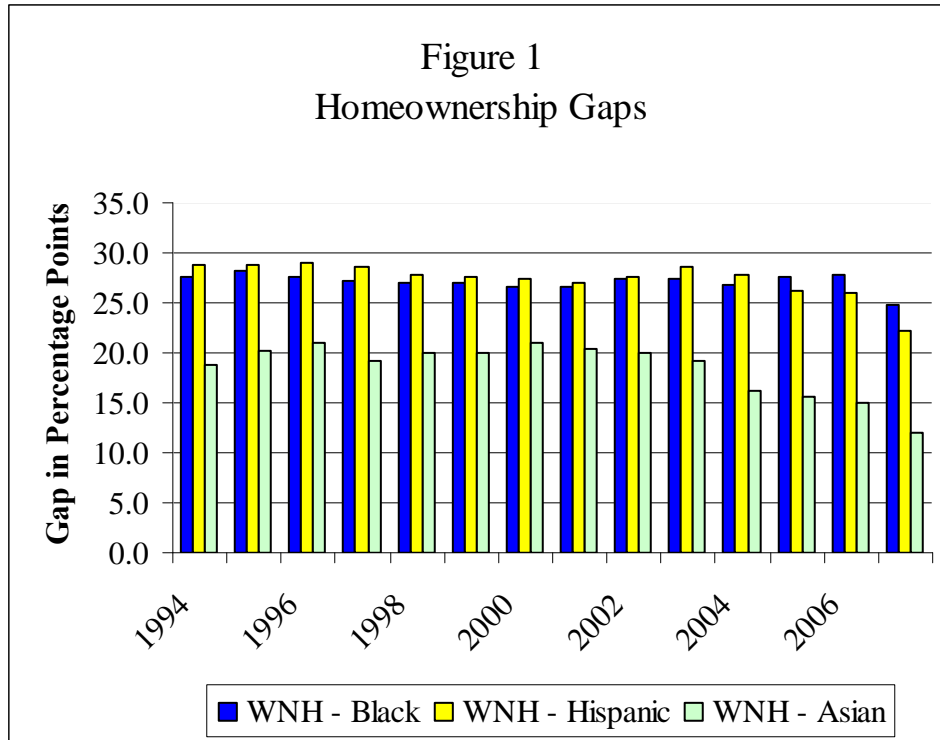
Year	Lowest Fifth	Second Fifth	Middle Fifth	Fourth Fifth	Highest Fifth
1995	44.0	56.0	64.3	76.5	86.1
1996	44.3	56.1	64.9	76.9	86.4
1997	44.0	57.3	65.5	77.1	87.1
1998	44.5	56.9	67.1	77.7	87.2
1999	46.2	57.6	67.1	77.9	87.3
2000	48.1	58.0	67.6	77.9	87.0
2001	49.0	58.6	67.4	78.1	87.3
2002	48.1	58.8	67.2	78.8	88.2
2003	47.8	58.6	68.1	80.5	89.1
2004	49.0	58.8	68.9	80.5	90.0
2005	46.1	58.2	68.8	80.0	89.3
2006	45.6	59.2	68.2	79.7	88.9
2007	46.3	58.1	67.3	79.2	88.7

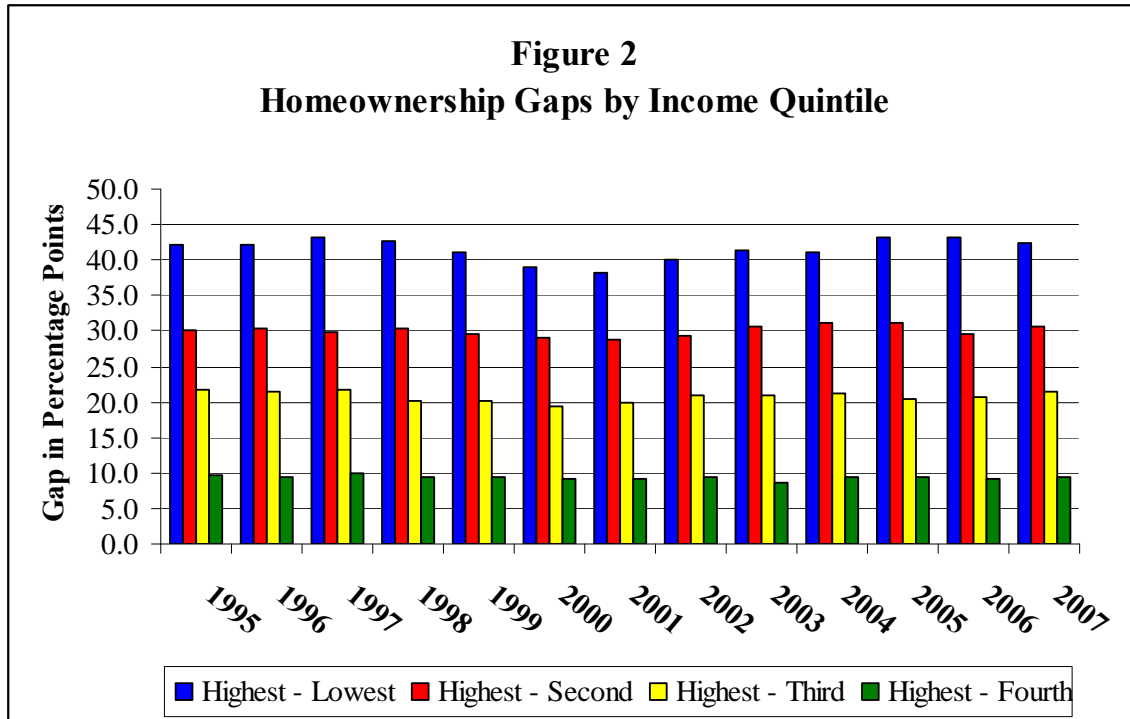
Source: U.S. Census Bureau’s Current Population Survey, Annual Social and Economic (ASEC) Supplement HINC-05, last accessed at http://pubdb3.census.gov/macro/032007/hhinc/new05_000.htm

Homeownership gaps for minorities relative to non-Hispanic whites, derived from the data in Table 1, are shown in Figure 1. Homeownership gaps for blacks and Hispanics relative to non-Hispanic whites, which stood at 27.7 and 28.8 percentage points, respectively, in 1994, narrowed steadily through 2001 to 26.6 and 27 percentage points. After 2001, the gaps fluctuated and, as of 2007, they had narrowed further for Hispanics, to 25.5 percentage points, but had increased to 28.0 percentage points for blacks. The gap for Asians relative to non-Hispanic whites fluctuated around 20 percentage points through 2002 and then declined, dropping to 15 percentage points by 2007.⁶ With the substantial growth in homeownership rates since 1994, absolute gaps did not widen, thus relative gaps narrowed.

⁶ From 1996 – 2002, those answering ‘other’ for race were allocated to one of 4 categories – White, Black, American Indian/Aleut/Eskimo or Asian/Native Hawaiian. Narrowing these gaps is viewed as an important social goal because owning a home is seen as providing a number of important benefits to families relative to renting. Further, homeownership is seen as beneficial to neighborhoods or communities, beyond the benefits that accrue to individual households; that is, it generates positive externalities. Indeed, some might argue that the special status accorded to homeownership in the U.S., such as with respect to favorable tax treatment; the FHA mortgage insurance program; and the chartering of government sponsored enterprises in the secondary mortgage market; amounts to treating homeownership as an entitlement, on par with education or health care.

Homeownership gaps by income group relative to the top income quintile, based on the data in Table 2, are shown in Figure 2. The gap between the top income quintile and the middle quintile has narrowed since 1998. The gaps between the top quintile and the bottom two quintiles declined substantially between 1998 and 2001 but widened again after 2001. In particular, it is notable that with the explosion of nonprime “affordable” products in 2003-4, the homeownership gap between low- and high-income households did not decrease. In fact the gap between low- and high-income households increased.





III. *The Role of Financial Institutions*

Financial institutions play a clear role in affecting homeownership rates. By setting underwriting standards, they directly impact the availability of mortgage credit. Easing of financing constraints can take the form of reductions in required down payments or cash reserves, loosening of payment-to-income ratio requirements, or relaxations in credit standards, enabling more borrowers to qualify for mortgages.⁷ Financial institutions also affect access to mortgage credit through technological advances that reduce origination costs or increase the accuracy of credit risk assessment. There is also a role for financial institutions in contributing to or overcoming informational barriers in mortgage markets by, for example, providing homebuyer education and counseling services.^{8,9}

⁷ See Courchane and Zorn (2009) for a discussion of the underwriting standards on mortgage market products and participants.

⁸ Evidence suggests that a lack of adequate information about the mortgage process may result in higher-than-necessary borrowing costs for some households and deter others from borrowing in the first place. For instance, Bucks and Pence (2006) find that “some adjustable-rate mortgage borrowers, especially those with below-median income, appear to underestimate or not know how much their interest rates could change.” Courchane, Surette, and Zorn (2004) find that subprime borrowers, who are disproportionately lower income and minority, tend to be less knowledgeable than prime borrowers about the process.

⁹ Another type of informational barrier, discussed by Nakamura (1993), may curtail the flow of credit to neighborhoods with few home sales and is based on information externalities. Nakamura theorizes that neighborhoods with few home sales generate too little information to support accurate property appraisals, leaving lenders less willing to extend credit. This hinders the development of a more robust housing

The impact of financial institutions on homeownership trends over the past fifteen years can be attributed to developments in four broad categories: regulation, technology, the secondary market and securitization, and homeownership “qualifying” products. Developments in these areas during this period were reflected in changes in the structure of the mortgage market, as evidenced by increased reliance on non-GSE (“non-agency”) securitization, a shift toward risk-based pricing, and changes in the market share of different categories of financial institutions.

CRA and GSE Affordable Goals

There were two significant legislative Acts that directed a focus on serving the needs of low- and moderate-income borrowers in terms of providing liquidity for housing markets. The first of these was the Community Reinvestment Act (CRA). The CRA directs the federal banking regulatory agencies to encourage the institutions they regulate to meet the credit needs of their entire communities, including low- and moderate-income areas, to the extent consistent with safe and sound banking practices. An institution’s record of serving the credit needs of low- and moderate-income populations within its market areas is periodically assessed by its regulatory agency. In 1995, substantive changes were made to CRA, including the introduction of quantitative criteria into the ratings process and public disclosure of ratings.¹⁰ The second legislative action that focused on access to credit was the Federal Housing Enterprises Financial Safety and Soundness Act of 1992 (the 1992 GSE Act) that established income-based and geographically targeted housing goals for the purchase of mortgages by each GSE. The housing goals were intended to ensure that an appropriate share of GSE mortgage purchases was targeted to low- and moderate income families and neighborhoods underserved by the mortgage market.

Technology and the Secondary Market

Advances in technology along several dimensions have affected access to mortgage credit, by reducing costs associated with applying for a mortgage and by impacting the structure of the mortgage market. These technological developments have included improved access to consumer credit information; adoption of credit scoring, automated underwriting, and automated appraisal technologies; advances in financial modeling; and innovation in secondary market debt instruments.

market, causing the informational barrier to persist. Geographically targeted lending efforts by financial institutions may mitigate information externalities, thereby promoting neighborhood revitalization.

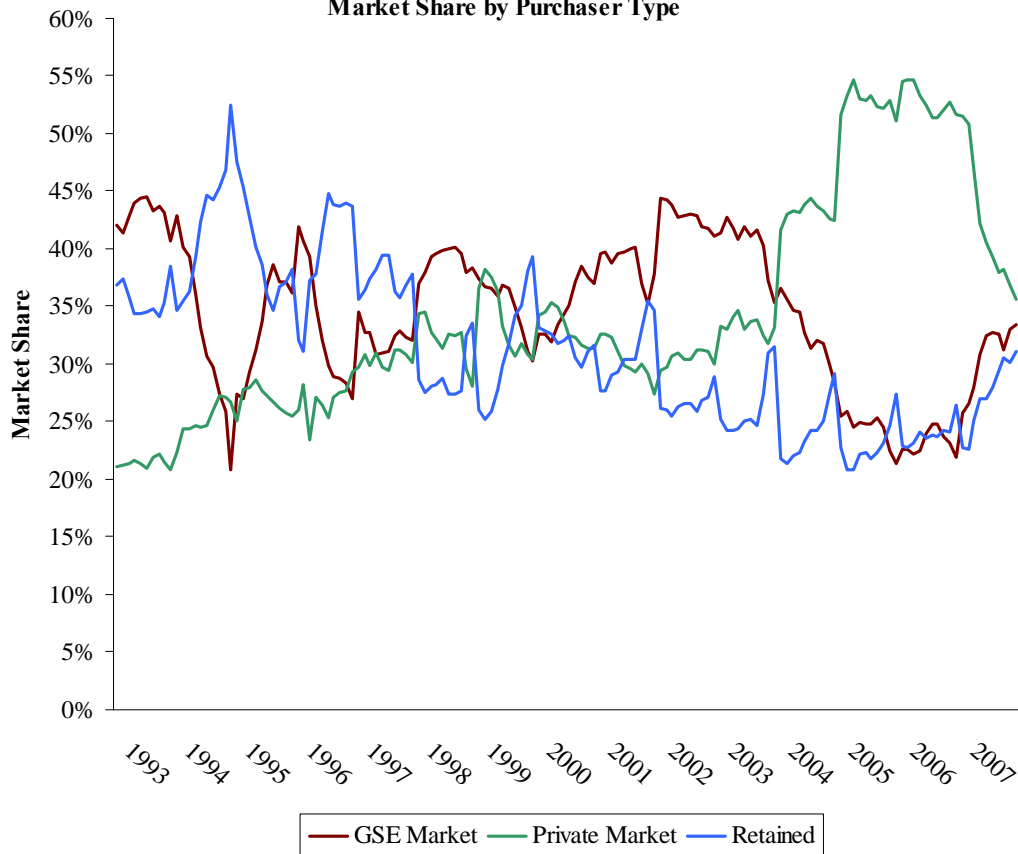
¹⁰ CRA assessments and performance ratings are based on both quantitative and qualitative performance measures. Substandard CRA performance can lead to denial of applications for acquisition or merger or other regulatory enforcement actions. In addition, public disclosure of shortcomings in the CRA record can adversely affect the institution’s reputation among potential investors, depositors, and borrowers. Consequently, banks have an incentive to maintain a good CRA record and expand lending as encouraged by the Act. See Avery, Bostic, and Canner (2000) for further discussion of the CRA performance evaluation process.

Adoption of credit scoring, automated underwriting, and automated appraisal technologies increased the accuracy of credit risk measurement, leading to the increased use of risk-based pricing and the introduction of new mortgage products. These technological developments along with advances in financial modeling and design of new debt instruments also reduced the costs of securitization and facilitated the growth of a secondary market outside of the GSEs. In turn, growth in non-GSE securitization increased the liquidity available to mortgage lenders for serving higher risk or non-traditional borrowers.

Figure 3 provides the time series of percent sold to the GSEs, percent sold to non-GSE purchasers, and percent retained, for conforming-size, conventional home purchase loans originated during 1993 through 2007, based on HMDA monthly time series data, excluding institutions specialized in subprime.¹¹ Between 1993 and 2003, the proportion of loans sold outside of the GSEs, a proxy for securitization activity, increased steadily from 20 percent to 35 percent. During 2004 through 2006, non-GSE sales spiked, reflecting a sharp increase in the securitization of nonprime loans and non-traditional “affordability” products such as interest-only loans.

¹¹ The spike in percent retained at the end of each year reflects underreporting of loan sales in HMDA at the end of the year, due to the fact that loans are reported sold only if the sale occurs in the same year as originations.

Figure 3
Prime Home Purchase Originations
Market Share by Purchaser Type



Source: HMDA data

Homeownership Qualifying Products

The impact of financial institutions on the availability of mortgage credit is reflected in products specifically designed to mitigate financial barriers. Any discussion of such homeownership qualifying, conventional mortgage products must distinguish between CRA-oriented products offered by prime depository lenders, and offered in the normal course of business by prime and subprime lenders. The CRA-oriented products are intended to expand access to credit subject to safety and soundness and cost considerations, but generally are not priced to maximize profits and typically are subsidized. Other homeownership qualifying, conventional mortgage products—subprime, alt-A, and non-traditional products such as interest-only mortgages—are characterized by risk-based pricing. A particular institution’s product and pricing strategies for these products likely are governed by profit, market share, and competitive objectives. Origination of targeted, CRA-oriented products is typically cost-constrained

and limited in scale. In contrast, non-prime and non-traditional products are originated in response to perceived profit opportunities, and at times may constitute a significant proportion of an institution's mortgage business. Some institutions have specialized in originating such products.

From the early 1990s through the end of the decade, often in response to the CRA, but also influenced by public relations or community development objectives, prime lenders intensified their efforts to reduce barriers to mortgage financing, through establishment or expansion of affordable lending programs.¹² These programs featured flexible underwriting standards, resulting in increased credit risk exposure, and risk mitigation activities, such as credit counseling. Typically, one or more of the following underwriting flexibilities were applied: low down payment requirements; higher acceptable ratios of debt payment to income; the use of alternative credit history information such as records of payments for rent and utilities; flexible employment standards; reduced cash reserve requirements; and flexibilities with respect to property evaluations such as applying less weight to neighborhood vacancy rates.¹³ In most cases, eligibility was restricted to low- or moderate-income borrowers, first-time homebuyers, or households purchasing a home in a low- or moderate-income neighborhood.¹⁴

Fannie Mae, Freddie Mac, and private mortgage insurance companies established analogous programs during this period. In 1994, Fannie Mae initiated a series of underwriting experiments, including its Flexible 97 product that permitted creditworthy borrowers to make 3 percent down payment from a variety of sources. Freddie Mac followed as it introduced its Affordable Gold[®] 97 product that permitted creditworthy borrowers to make 3 percent down payments from personal cash and other sources and offered flexible payment ratios. In 2000, Freddie Mac offered the Freddie Mac 100 product and Fannie Mae released its MyCommunityMortgage suite of products. These products allowed zero down payment options for creditworthy, low- to moderate-income borrowers.

Mortgage products in the prime market generally include those that meet the standards for sale in the conventional, conforming secondary market and reflect borrowers with good credit histories, no major delinquencies, mortgage insurance for loan-to-value ("LTV") ratios in excess of 80 percent, and documentation of income and credit. Near

¹² Avery, Bostic, Calem, and Canner (1996) and Avery, Bostic, and Canner (2000) present detailed discussions of affordable home lending programs; the latter provide findings from a survey of these programs.

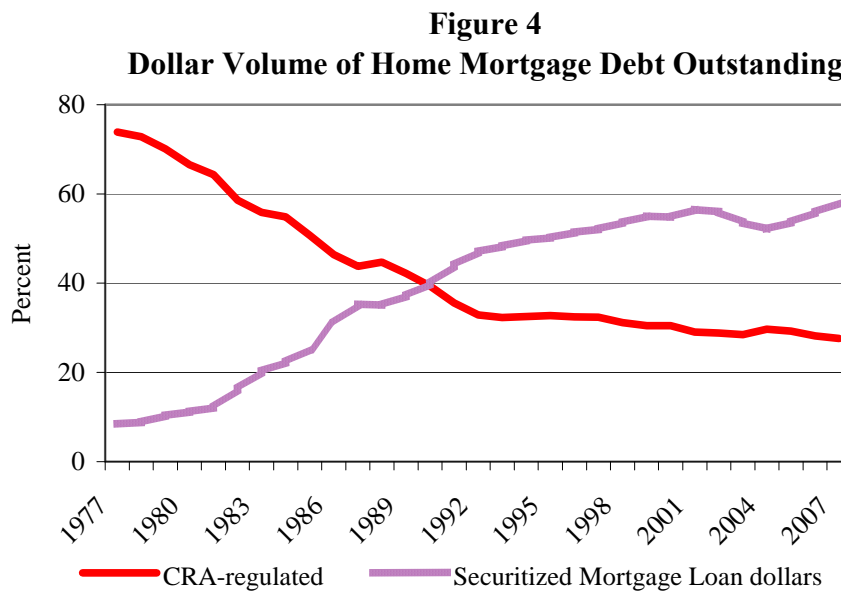
¹³ The programs may also involve subsidies to borrowers. These may take the form of lower interest rates than would ordinarily be associated with the credit risk of such loans, sometimes even below prime market rates. Subsidies may also involve the waiving of private mortgage insurance requirements or reducing or waiving of points or fees. In some cases, the lender may partner with a government program or a private, nonprofit community reinvestment fund that provides the subsidy.

¹⁴ Some programs also require that the borrower be a first-time homebuyer. These programs are further characterized by special marketing efforts to targeted groups.

prime or “Alt-A” indicates products that present “alternatives to agency” conforming loans and are offered to borrowers with good credit histories who don’t meet traditional lending guidelines due largely to lack of income documentation. Subprime lending targets borrowers with weakened credit histories due to delinquencies or public record credit history items resulting in low credit scores. Subprime also includes those with high debt-to-income burdens or high LTV ratios combined with other credit weaknesses.

Market share changes

In recent research, Avery, Courchane and Zorn (2009) have shown that the share of overall financial activity covered under the CRA has declined substantially. This decline in coverage has occurred at the same time as mortgage securitization was increasing. Those institutions not covered by CRA did not rely on deposits to obtain liquidity for mortgage lenders, but rather on the secondary market. Figure 4 illustrates the decline in dollar volumes of mortgages originated by CRA lenders and the contemporaneous rise in securitization activity in mortgage markets.¹⁵



The authors further demonstrate that the footprint of financial institutions has increased dramatically with institutions that operate across several states, if not nationally, conducting most financial activity. This suggests that we should expect to see CRA-regulated institutions regain market share as independent, non-chartered investment banks no longer exist—they have either merged with depositories or become bank-chartered institutions and as the non-covered subprime sector has collapsed.

¹⁵ Data are from Federal Reserve Board G19 and the Flow of Funds Table 2b (real 2007 \$millions).

The authors also draw a link to access to credit for low- and moderate-income borrowers (LMI). They suggest that because underwriting standards have tightened significantly in primary, secondary, and mortgage insurance markets, there is likely to be a significant reduction in the share of higher-rate mortgage originations implying less access to credit for LMI borrowers and in LMI neighborhoods. If such a trend were confirmed, the importance of the CRA may increase as it mandates focus on these otherwise less well-served areas.

Starting in 2004, market share shifted dramatically to subprime and away from prime and FHA lenders (see Table 3). The market share held by those lenders identified as ‘subprime’ specialists by the Department of Housing and Urban Development (HUD) widened beginning in 2001 and surged from 2004 through 2006.¹⁶ At the same time that the nonprime share grew, financial institutions were originating fewer government-insured FHA mortgages (see Table 4).¹⁷ These trends are illustrated below in Figure 5. This expansion by subprime specialists as shown in the HMDA data was the dominant and most visible component of a broader expansion in nonprime lending and origination of nontraditional products. A similar expansion occurred in alt-A lending by predominantly prime lenders (see Table 5, which includes Jumbo, Alt-A, and HELOC). Moreover, the indicated decline in market share of subprime specialists in 2006 was offset by an increase in subprime lending by institutions not classified as subprime specialists.

Year	FHA	Conventional, Conforming	
		Prime	Subprime
1997	14.29%	74%	11%
1998	10.99%	79.22%	9.79%
1999	12.68%	74.58%	12.74%
2000	13.40%	72.22%	14.38%
2001	10.69%	80.72%	8.59%
2002	7.84%	82.91%	9.25%
2003	6.34%	83.57%	10.09%
2004	5.08%	76.42%	18.50%
2005	3.20%	77.76%	19.04%
2006	3.06%	82.69%	14.25%
2007	5.06%	90.28%	4.67%

¹⁶ For all HMDA based tables and figures, results were comparable using either the subprime definition of loans above the rate spread reporting threshold or the subprime lender list identified supprime loans.

¹⁷ See Courchane, Darolia and Zorn (2009).

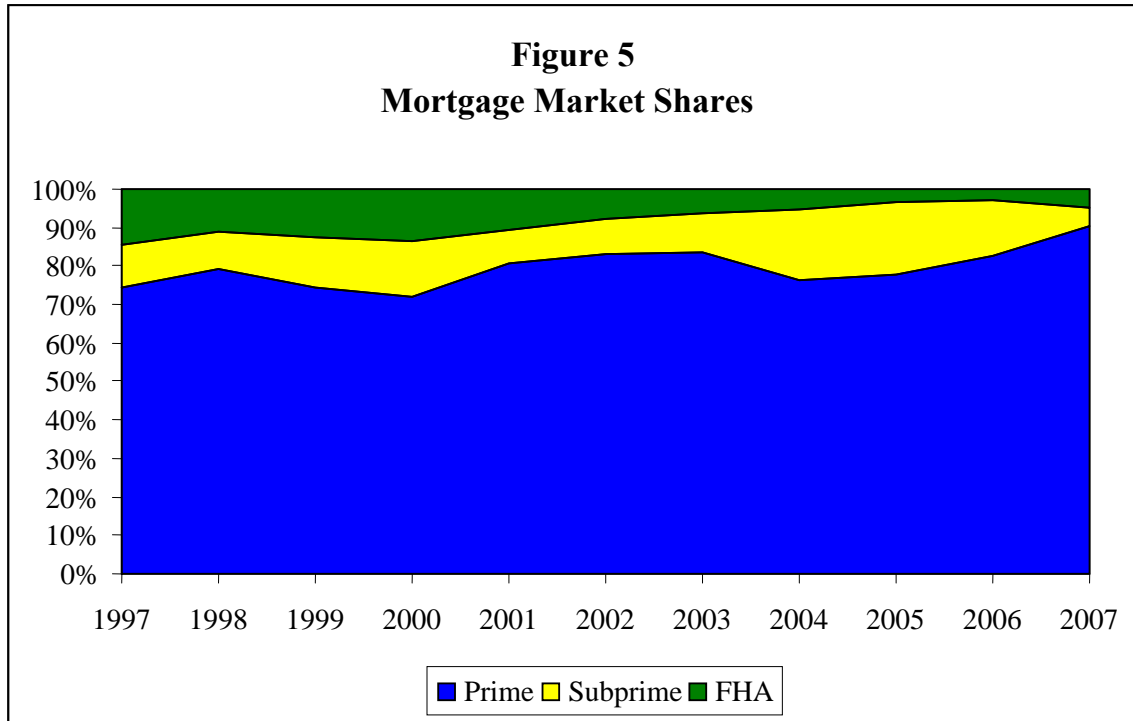
Table 4				
Single Family, Conforming, Purchase/Refinance				
National Originations by Year				
Year	Counts			Total
	FHA	Conventional, Conforming Prime	Subprime	
1997	807,083	4,202,763	639,635	5,649,481
1998	1,064,757	7,676,376	948,334	9,689,467
1999	1,013,425	5,961,172	1,018,137	7,992,734
2000	834,352	4,496,769	895,605	6,226,726
2001	1,226,980	9,261,618	985,184	11,473,782
2002	1,077,348	11,388,307	1,270,399	13,736,054
2003	1,185,570	15,617,654	1,885,091	18,688,315
2004	617,759	9,288,716	2,248,197	12,154,672
2005	400,595	9,724,090	2,380,741	12,505,426
2006	349,800	9,440,567	1,626,887	11,417,254
2007	423,465	7,557,544	390,661	8,371,670

The subprime share doubled to 18 percent in 2004 and stayed at 20 percent for 2005 and 2006. As the subprime share of the market increased, many expected that homeownership rates would increase and that minority gaps might also decrease, as the subprime market introduced innovative products that relaxed credit standards. In fact, the national homeownership rate did not increase after 2004. Rather, some of this expansion in subprime came at the cost of the FHA market share, which historically had been focused on first time and minority homebuyer efforts.

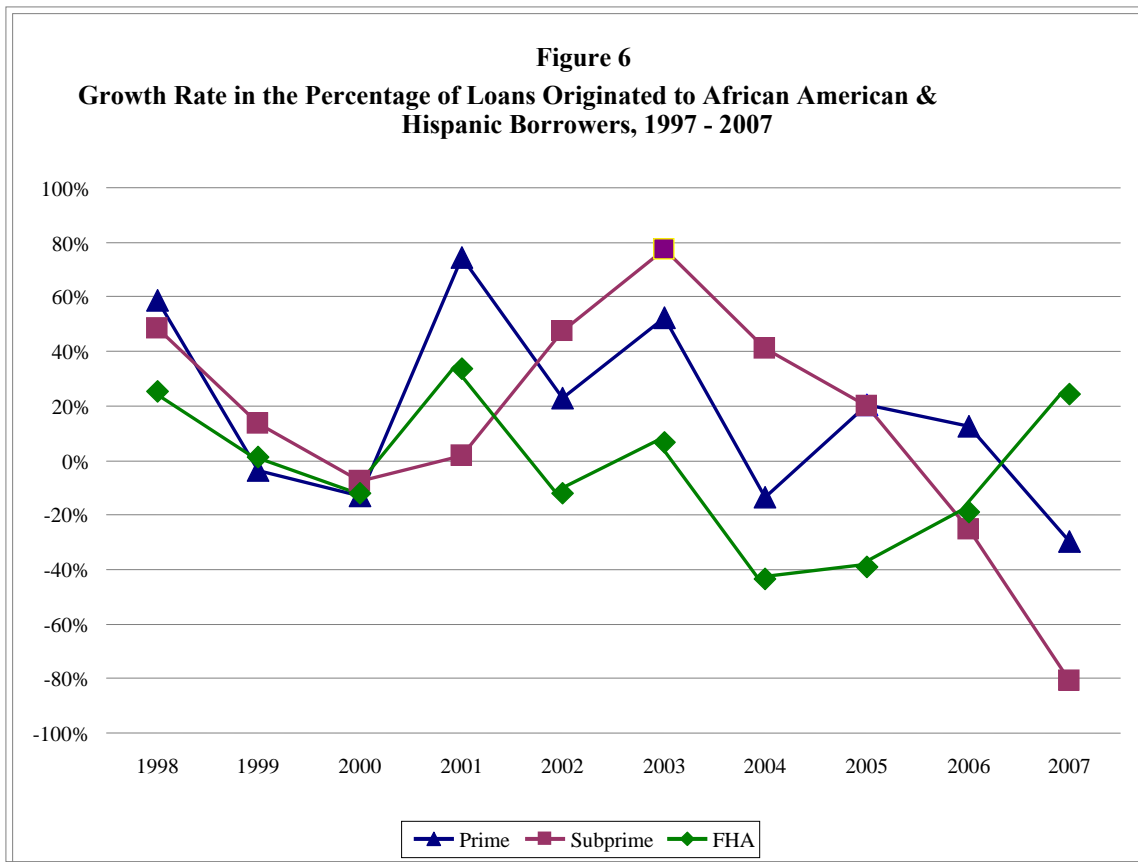
Table 5						
Mortgage Originations by Product¹⁸						
Year	FHA/VA	Conventional Conforming	Jumbo	Subprime	Alt- A	HELOC
Direction of Change	↓↓	↓↓	↓↓	↑↑	↑↑	↑↑
2001	8%	57%	20%	7%	2%	5%
2002	7%	63%	21%	1%	2%	6%
2003	6%	63%	16%	8%	2%	6%
2004	4%	41%	17%	18%	6%	12%

¹⁸ *Inside Mortgage Finance 2008 Mortgage Market Statistical Annual*

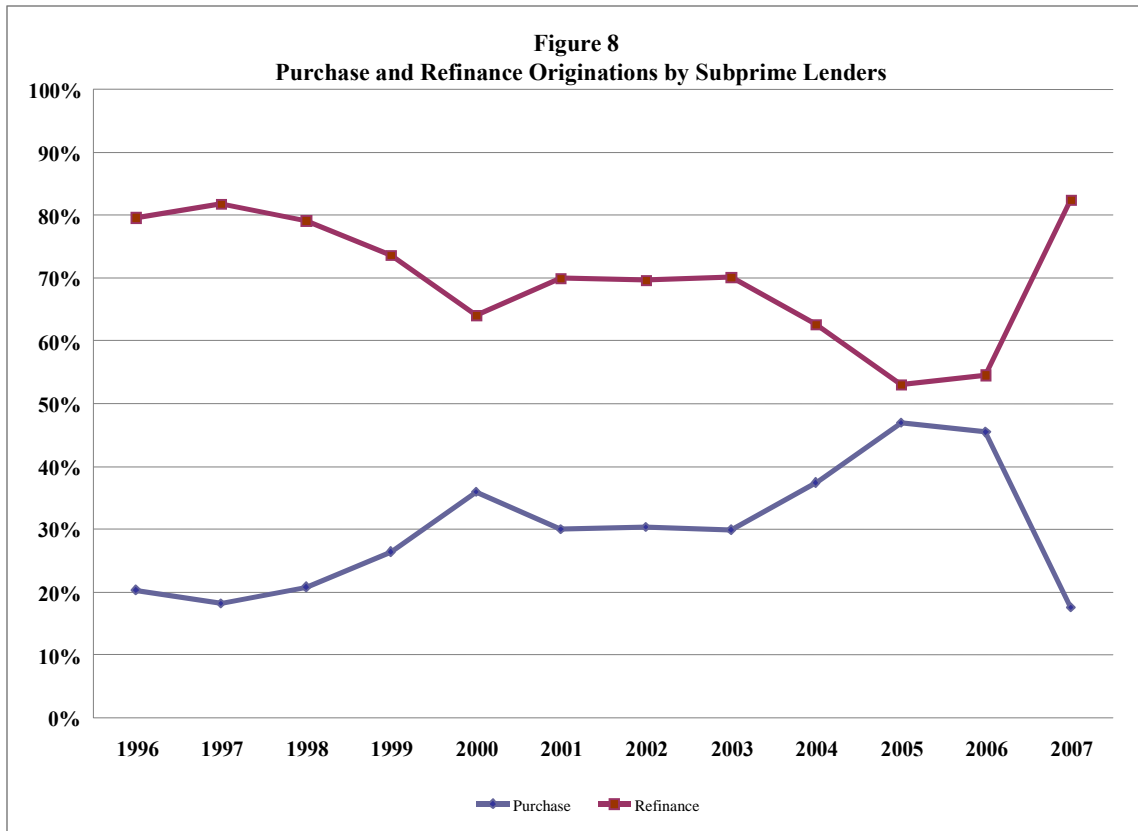
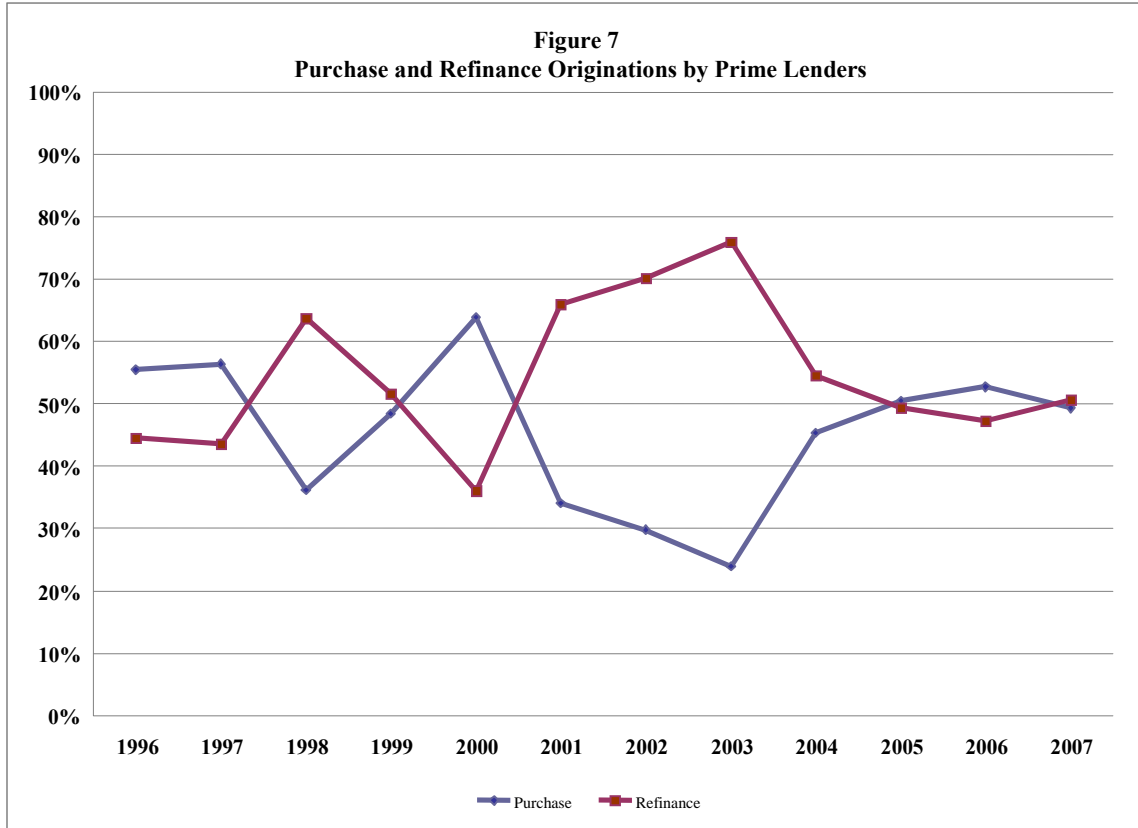
2005	3%	35%	18%	20%	12%	12%
2006	3%	33%	16%	20%	13%	14%
2007	4%	48%	14%	8%	11%	15%



In the period 2002-2005, the growth rate of subprime was particularly high for minority borrowers. As shown in Figure 6, the share of minority loans that were originated by subprime lenders grew rapidly during this period, falling off (in terms of growth) beyond 2005.



In the prime market, apart from periods of high refinance activity due to falling interest rates, home purchase borrowing has ranged from about 50 to 60 percent of the market (Figure 7). In contrast, the subprime market historically has been dominated by refinance lending (Figure 8), with home purchase borrowing comprising only 20 and 30 percent of the market. After 2003, however, the home purchase share of the subprime market surged to between 40 and 50 percent. As we have seen, however, this increase was not associated with an increase in homeownership rates beyond a modest increase from 2003 to 2004, nor an increase in homeownership rates among low to moderate income populations.



IV. Impacts on Homeownership of Lending Initiatives and Market Changes

There exists a fair amount of evidence that links the rising homeownership rate prior to 2004 and the narrowing of homeownership gaps to developments in the mortgage market. Bostic and Surette (2001) analyze the increase in homeownership prior to 1998, and find that it was greatest for lower income groups, although substantial disparities by income and racial or ethnic classification remained. They find that changes in household characteristics, including demographic changes with respect to age, marital status, and household size; and changes in education levels and incomes explain much of the increase in homeownership for middle- and upper-income families, but little of the increase for lower-income families. They conclude that “changes in mortgage and housing markets, and changes in the regulations governing those markets” likely played an important role in expanding homeownership, particularly for lower-income families.¹⁹ Gates, Waldron, and Zorn (2003) present evidence suggesting that the introduction of automated underwriting models had a positive impact on acceptance rates of applications for mortgages on properties located in low- and moderate income neighborhoods. Moreover, technology advances likely facilitated the ability of higher credit risk borrowers, including many with low- and moderate incomes, to obtain home purchase loans. Avery, Calem, and Canner (2004b) also find an impact of the CRA on local neighborhood homeownership rates, in a comparison of neighborhoods just above and below the “low- and moderate-income” threshold used to evaluate CRA performance.

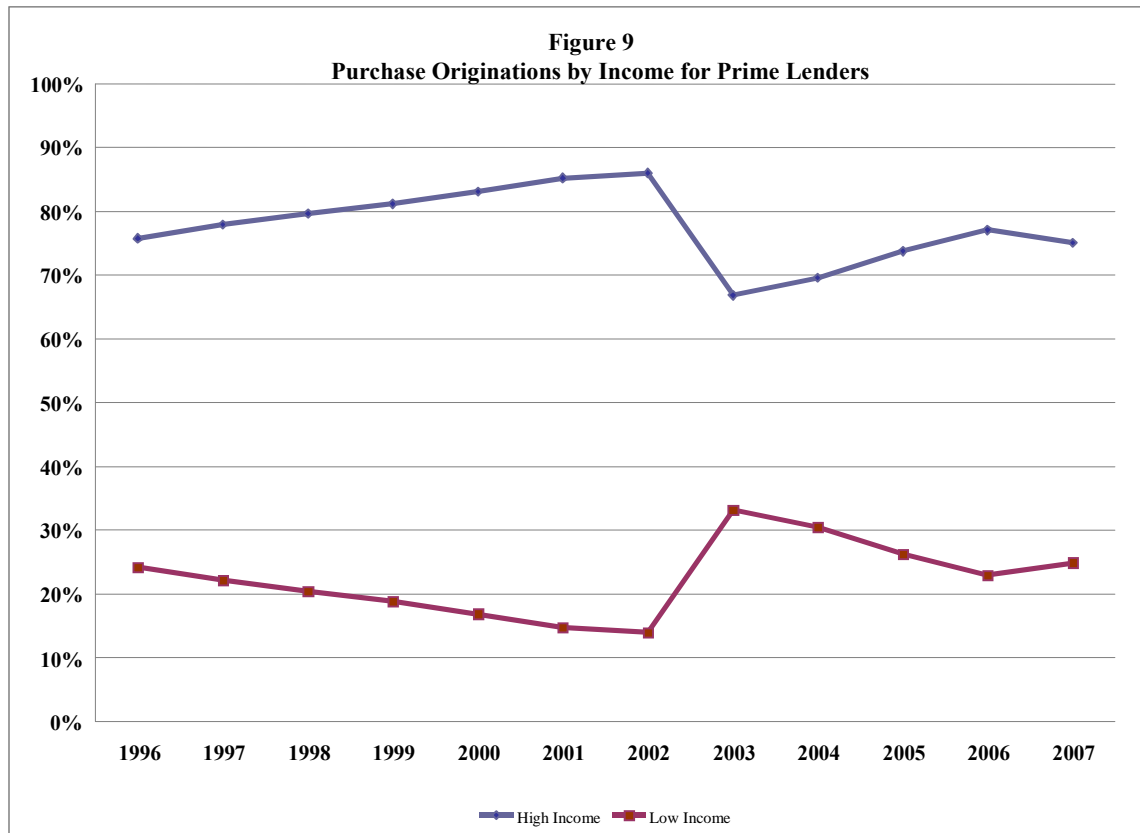
Subprime, Alt-A, and non-traditional products

Historically, subprime borrowing appears to have been relatively concentrated among lower income and minority households and in lower-income or minority neighborhoods, providing circumstantial evidence that nonprime lending has helped to increase

¹⁹ Gabriel and Rosenthal (2005) focus on racial and ethnic gaps in homeownership, and find that the portion of the gap that cannot be explained by differences in demographic variables, income, or employment and health circumstances declined substantially between 1983 and 2001, although substantial gaps persist. They note that “this narrowing or race-related effects was broadly consistent with changes in the savings behavior of white and minority renters over the period,” as evidenced by an increase in the proportion of minorities saving to purchase a home. They also note “these patterns suggest that minority households view homeownership as a far more viable option today than in the past.” Indirect evidence is found in the substantial literature on financial barriers to homeownership. Quercia, McCarthy, and Wachter (2003) estimate an empirical model of the impact of financial barriers on homeownership status and apply it to evaluate the marginal effect of specific underwriting flexibilities. Their empirical results indicate an important impact of affordable lending programs on likelihood of homeownership.

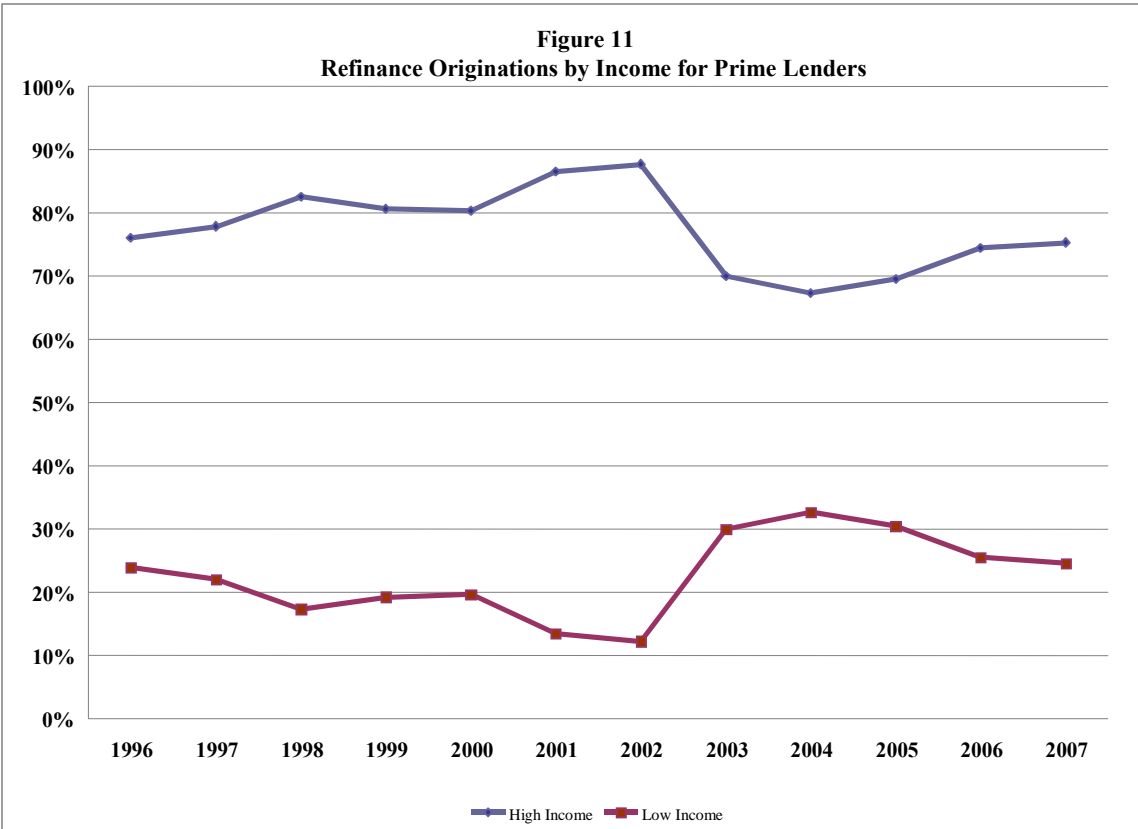
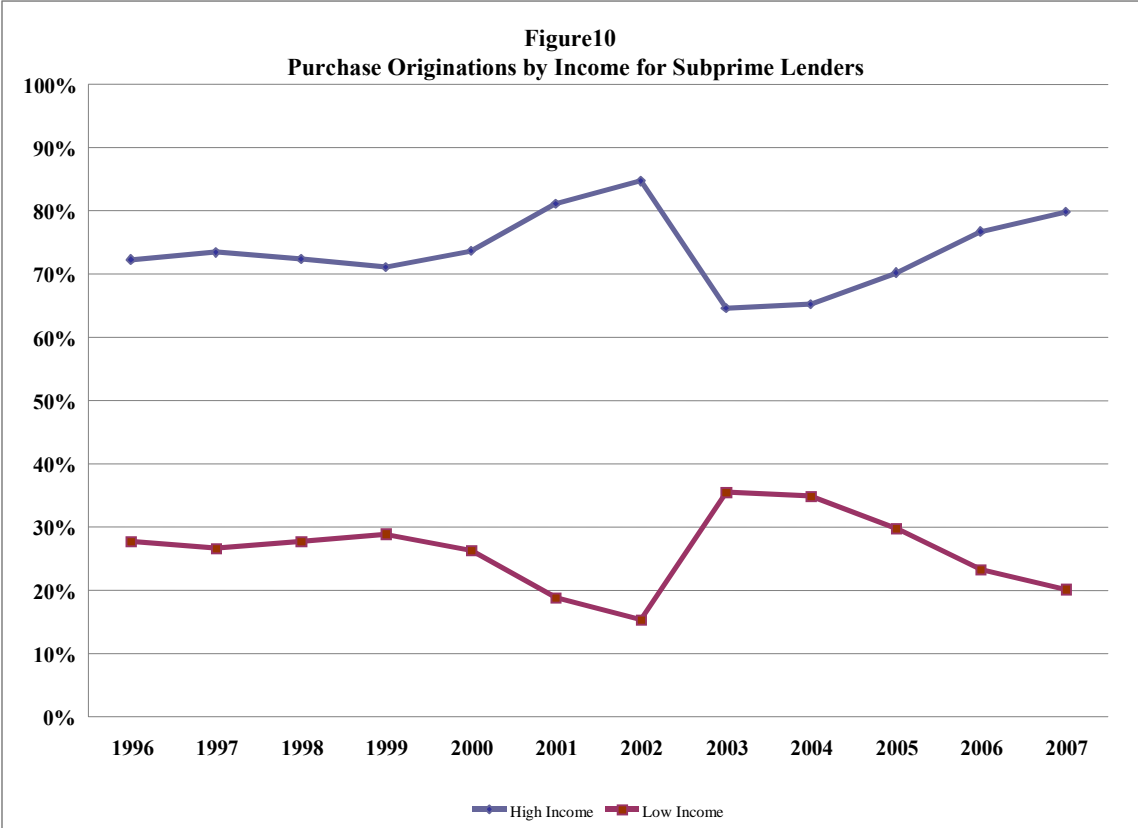
homeownership.²⁰ Historically, however, most subprime lending was for the refinance of existing mortgages, and thus did not play a direct role in expanding homeownership. Moreover, by 2002, the distinction between prime and subprime with respect to borrower incomes appears to have largely disappeared for home purchase loans (see Figures 9 and 10), although it persists for refinance loans (Figures 11 and 12).²¹ In addition, as noted above, FHA and other lending sources were crowded out. These facts, suggest that historically, subprime did little to expand homeownership, among low to moderate-income households.

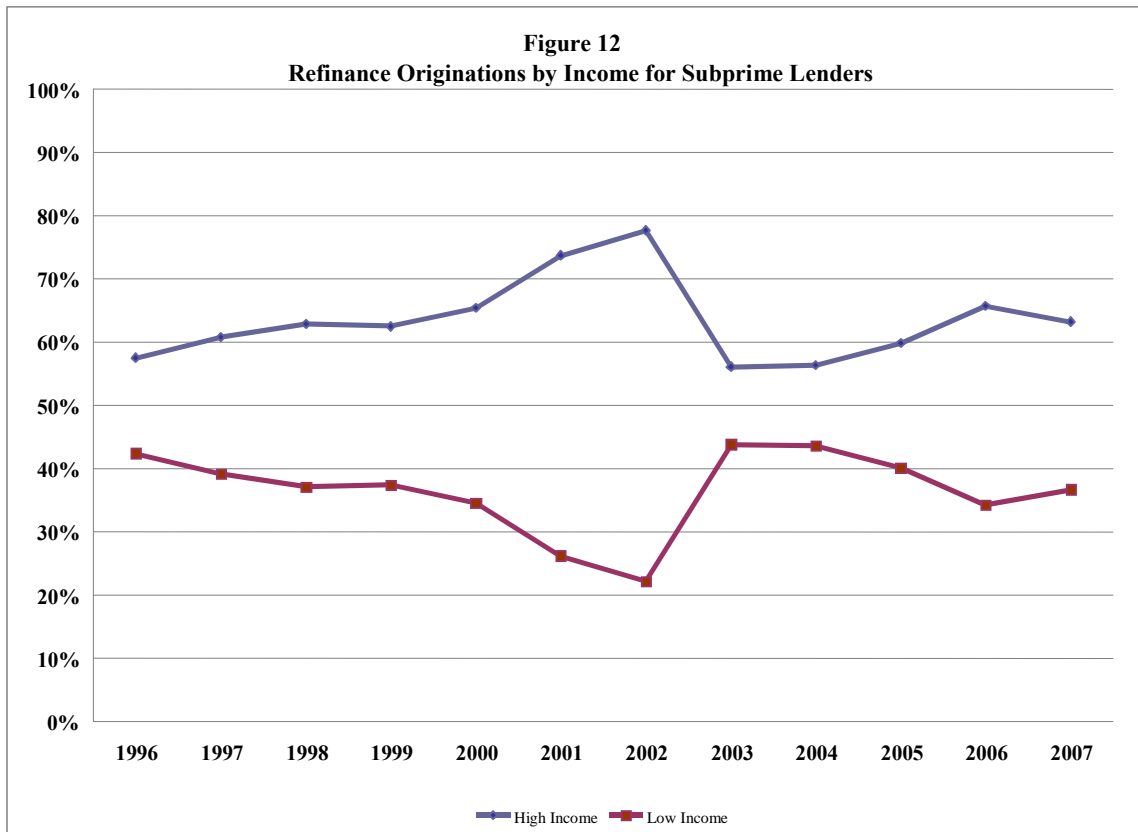
Moreover, the rapid expansion of subprime and Alt-A lending and originations during 2004-2006 was coincident with rapidly accelerating house price appreciation. In this context, the increased availability of nonprime lending and non-traditional products and the loosening of credit standards likely accelerated house price appreciation and increased demand for second homes and investment properties, while not yielding more homeowners (Pavlov and Wachter 2007, Demyanyk 2009).



²⁰ A number of studies have compared the composition of the subprime market to that of the prime market with respect to borrower and neighborhood economic and demographic characteristics. See Callem, Gillen, and Wachter (2004) for a review of these studies.

²¹ The discrete jumps in the data from 2002 to 2003 reflect simply the change in the Census data used (from 1990 to 2000 data) in HMDA to measure low and moderate incomes.





Further, research by Courchane and Zorn (2008) indicates that the credit profiles of Hispanic and African American populations differ within the subprime market channel. African Americans, given subprime, have lower distributions of FICO scores than do Hispanics. Other evidence suggests that Hispanics may have more thin files and more borrowers qualifying on a particular mortgage. To the extent that the reasons differ for why borrowers obtained nonprime mortgages, they will be differentially impacted by the recent demise of subprime lending and tightened underwriting. In fact homeownership rates for Hispanics continue to rise suggesting that access to the now nonexistent subprime market was not fundamental to this trend.

Limits to expanding homeownership

While financial institutions have a role to play in promoting homeownership, particularly by reducing financial barriers, there are important limitations to what they can accomplish. These limitations include costs to borrowers and lenders associated with an elevated risk of default; impacts of neighborhood concentrations of delinquency and default; and limitations associated with market conditions and economic variables, including housing affordability conditions.²²

²² In addition, there may be natural limitations on the ability of financial institutions to overcome informational barriers.

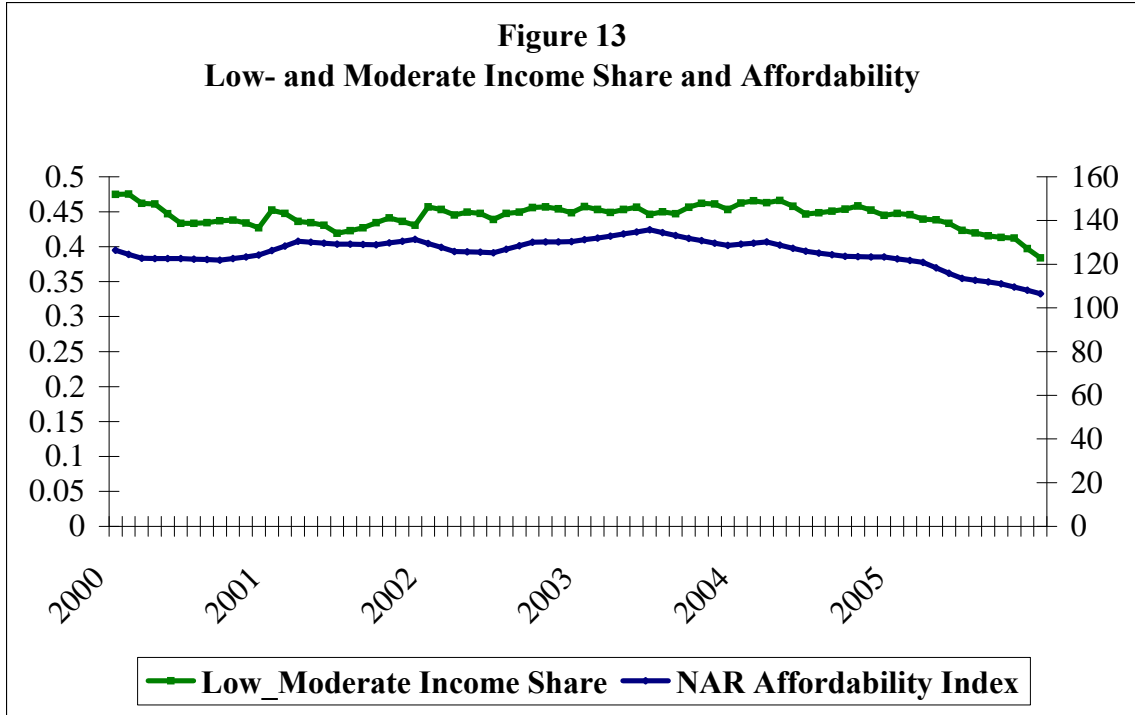
There is substantial evidence to indicate that the complex layering of individual borrower and/or neighborhood risk factors characteristic of subprime lending and similar “homeownership qualifying” programs after 2003, elevated delinquency and default rates.²³ The associated costs to borrowers and lenders imply limitations on increases in homeownership achievable through relaxation of several credit standards simultaneously.

In the subprime market, borrowers with higher measured risk generally pay higher prices for the loans in the form of higher interest rates and more points or fees for mortgage credit. Thus, subprime credit was not necessarily an affordable option for many households. In the case of CRA-related flexible lending initiatives, risk-based pricing is used in a more limited way, if at all. Typically, the riskiest borrowers in these programs are either subsidized by the lender or by other borrowers in the program or both. Clearly, then, the scope of these programs is limited by the amount of cross-subsidy other borrowers are willing to provide (before opting for their perceived, next-best alternative) and by the costs that lenders are willing to bear.²⁴

Figure 13 presents evidence that the share of mortgages originated to low- and moderate-income borrowers tends to be positively related to affordability of housing over time (as measured by the National Association of Realtors). In particular, the sharp decline in affordability in 2004 and 2005 was accompanied by a comparable decline in the proportion of lower income borrowers. Declining affordability due to rapidly rising house prices may be a reason why the national homeownership rate did not continue to increase through 2005, and declined among lower income borrowers (Table 2).

²³ See, for instance, Avery, Bostic, Calem, and Canner (1996). Calem and Wachter (1999) highlight the risk exposure associated with lending in neighborhoods with thin housing markets.

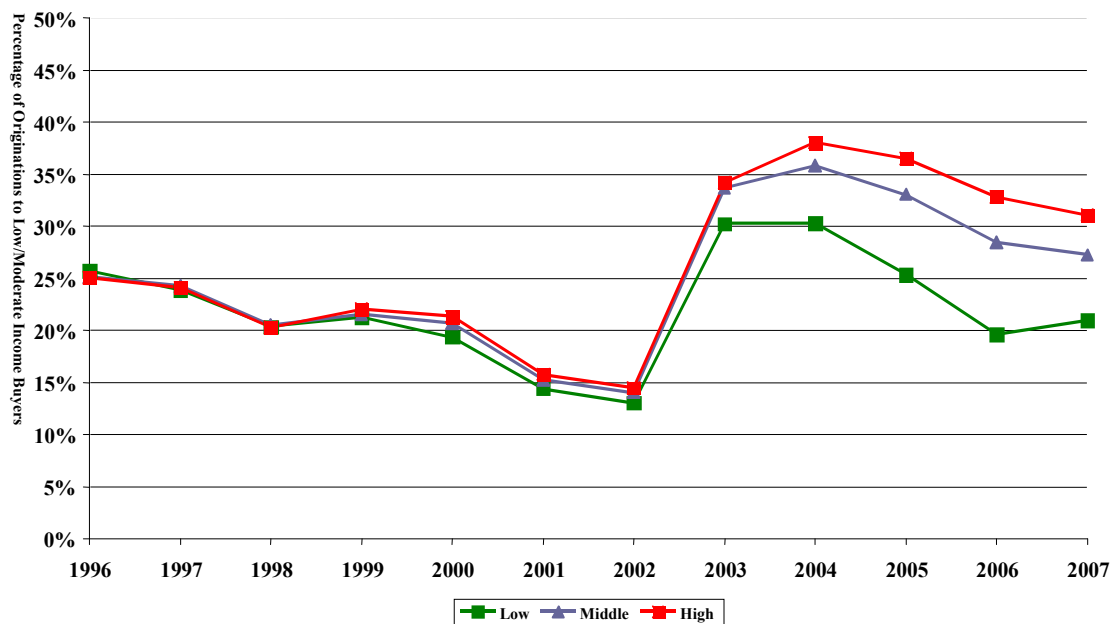
²⁴ Evidence from a recent Federal Reserve survey suggests that CRA-related lending to date had not placed an undue burden on banking organizations. Avery, Bostic, and Canner (2000) report that among survey respondents, CRA special mortgage programs tended to have lower delinquency and default rates than other mortgage lending in lower income areas and to lower income borrowers. Most of the programs were classified as profitable, though less profitable than overall mortgage lending. This report is encouraging insofar as it suggests that lenders were satisfied with their existing programs. However, it provides no indication of the degree to which lenders could expand existing programs without bearing undue costs. The survey is no doubt also subject to survivorship bias, in that programs that have proven to be less profitable are likely to have been terminated.



Source: National Association of Realtors and monthly HMDA time series; HMDA data restricted to conforming-size, conventional 1-4 family, owner-occupied, home purchase mortgages in metropolitan areas *Note:* Low-and moderate-income borrowers defined as those with incomes less than area median income.

Figure 14 tracks the share of home purchase and refinance loans originated to low-and moderate-income borrowers by state affordability ranking (as of 2006). Prior to 2003, states with higher affordability had higher percentages of lower income borrowers, possibly reflecting stronger economic conditions in those states, although differences across states were small. After 2003, the relationship changed. States with greater affordability had substantially larger percentages of low- and moderate-income borrowers, reflecting the reduced ability of low- and moderate-income borrowers to afford homeownership in states with low and declining affordability.

Figure 14
Originations to Low- and Moderate Income Borrowers by State Affordability Index Rank 1997 - 2007



V. *The World Ahead*

In order to be able to contemplate fruitfully ways in which sustainable homeownership might be increased, it is important to understand the barriers to homeownership. Rosenthal (2003), using data from the 1998 Survey of Consumer Finances, found that as of 1998, the impact of financing constraints resulted in lowering the national homeownership rate by 4 percentage points. Research by Bostic and Surette (2001) suggested that 1 percentage point of the 1.8 percentage point increase in homeownership rates between 1998 and 2005 can be attributed to easing of these constraints.²⁵ Subtracting this percentage point from Rosenthal’s estimate leaves 3 percentage points of unrealized homeownership attributable to financing constraints as of 2005. Using a similar methodology would suggest that 1.8 percentage points of the 3.1 percentage point increase in the homeownership rate between 1995 and 2005 can be attributed to increased access to mortgage credit, particularly among lower-income and minority households.

The ability to qualify for a mortgage depends not only on underwriting standards but also on the level of the down payment that can be supplied by borrowers. During the subprime surge period, a large percentage of loans were provided to borrowers as ‘piggy

²⁵ Bostic and Surette (2001) attribute growth in the homeownership rate in the top two income quintiles to income and demographic trends, and in the lower quintiles to supply-side factors. Note that the CPS indicates a 1.8 percentage point increase in the overall homeownership rate between 1998 and 2005, while the Housing Vacancy Survey indicates a 2.6 percentage point increase.

back' loans, with a first lien loan of 80 percent and a second lien loan (provided by the same or a different lender) at up to 20 percent of the value of the home being purchased. As housing prices have fallen, and many homeowners have mortgage loan amounts that exceed home values, lenders have grown particularly cautious about granting high LTV loans. Even FHA loans, traditionally serving a high LTV segment of the market, have imposed constraints requiring minimum down payments of 3 percent.

To be able to move toward increases in sustainable homeownership will likely require overcoming credit quality constraints. Past research by Bostic, Calem and Wachter (2004) had found that perceived credit quality had trended downward among the renter population, according to Bostic, Calem, and Wachter (2004). They suggest this may have resulted from finding that households with lower measured credit quality became more concentrated among the renter population as wealth and income barriers to homeownership had eased. Calem, Firestone, and Wachter (2008) point to the important role of credit impairment as well as to downpayments in the probability of becoming a homeowner through 2004.

Currently, markets are imposing stringent requirements on down payments (wealth), ability to pay (verifiable income), and good credit, making this one of the hardest periods in recent years in which to qualify for a home mortgage. The focus, at least for the next few years, is likely to be on keeping borrowers in the homes they have purchased, rather than on providing increased access to credit to borrowers perceived to be marginal. The rise and fall in housing prices associated with the expansion and withdrawal of subprime and nonprime lending (Pavlov and Wachter, 2006, 2008) has resulted in "underwater" mortgages for one-fourth of home borrowers. The unprecedented rise in foreclosures to levels not seen in the post World War period raises serious questions about the financial system's structure. Issues of systemic instability will need to be addressed in order to support sustainable homeownership going forward.

Our policy recommendations would support the return to more conservative underwriting standards. Some aspects of that would be a requirement that borrowers obtaining mortgages for either owner-occupied or non-owner occupied properties must contribute some percentage of their own funds to downpayments. If they stand to lose their own money when house prices decline or if they become delinquent, it may give pause to their actions. Similarly, verification of income and employment that support an ability to pay the large debts incurred seems, now, a minimum requirement for mortgage lending. Further considerations might entail mandatory pre-purchase counseling for borrowers with credit scores below a minimum threshold, coupled with mandatory post-purchase counseling for those whose credit scores decline substantially over time. Finally, supervision of internal risk models at the largest of the lenders, accompanied with stress tests, might uncover at an earlier stage issues related to model deficiencies.

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Appendix

Table A-1

U.S. Homeownership Rates by Race and Ethnicity, 1983 to Present

Period	U.S. Total, %	White Alone	Non-Hispanic, %			Hispanic%
			Black Alone	Other race alone	Two or more races	
1983	64.9	69.1	45.6	53.3	NA	41.2
1984	64.5	69.0	46.0	50.9	NA	40.1
1985	64.3	69.0	44.4	50.7	NA	41.1
1986	63.8	68.4	44.8	49.7	NA	40.6
1987	64.0	68.7	45.8	48.7	NA	40.6
1988	64.0	69.1	42.9	49.7	NA	40.6
1989	64.0	69.3	42.1	50.6	NA	41.6
1990	64.1	69.4	42.6	49.2	NA	41.2
1991	64.0	69.5	42.7	51.3	NA	39.0
1992	64.1	69.6	42.6	52.5	NA	39.9
1993	64.1	70.2	42.0	50.6	NA	39.4
1994	64.0	70.0	42.5	50.8	NA	41.2
1995	64.7	70.9	42.9	51.5	NA	42.0
1996	65.4	71.7	44.5	51.5	NA	42.8
1997	65.7	72.0	45.4	53.3	NA	43.3
1998	66.3	72.6	46.1	53.7	NA	44.7
1999	66.8	73.2	46.7	54.1	NA	45.5
2000	67.4	73.8	47.6	53.9	NA	46.3
2001	67.8	74.3	48.4	54.7	NA	47.3
2002	67.9	74.7	48.2	55.0	NA	47.0
2003	68.3	75.4	48.8	56.7	58.0	46.7
2004	69.0	76.0	49.7	59.6	60.4	48.1
2005	68.9	75.8	48.8	60.4	59.8	49.5
2006	68.8	75.8	48.4	61.1	59.9	49.7
2007	68.1	75.2	47.8	60.3	59.0	49.7
2008	67.8	75.0	47.9	59.8	57.8	49.1

Source: U.S. Housing Market Conditions, HUD, Table 2, Homeownership Rates by Race and Ethnicity, 1983 to Present, last accessed at: http://www.huduser.org/periodicals/ushmc/winter08/hist_data.pdf