



A House Divided

How Race Colors the Path
to Homeownership



With a foreword by:



**National
Urban League**

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Foreword

by the National Urban League

This mortgage experience study underscores what the National Urban League has long known—that African-Americans and Hispanics face significantly greater barriers to entering the traditional housing market than their white and Asian counterparts. This has a tremendous impact on quality of life issues, upward mobility and the ability of families to accumulate and pass on wealth to the next generation.

The National Urban League’s mission is to enable communities of color to secure economic self-reliance, parity, power and civil rights. Founded in 1910, we have 95 affiliates, serving 300 communities, in 35 states and the District of Columbia. We have over 40 years of experience providing pre-purchase and foreclosure counseling to ensure borrowers are well informed of their housing rights and options, and have greater opportunities to access the housing market.

For generations, homeownership has been the primary means for Americans to acquire wealth. Sadly, according to the study, African-Americans and Hispanics are less likely to apply, and be approved, for home mortgages than whites. They have lower incomes, lower homeownership rates, less equity in their homes and as a result, less wealth. According to the National Urban League’s *2013 State of Black*

America Equality Index, in 2010, the median wealth of African-Americans and Hispanics was \$4,955 and \$7,424, respectively, compared to \$110,729 for whites. The National Urban League’s *At Risk: State of the Black Middle Class* report also shows how the Great Recession adversely affected the economic gains made by African-Americans in the

from accessing the housing market. A commitment should be made to ensuring fair and equitable access to the housing finance system for all responsible and qualified buyers, regardless of race or ethnicity. This has always been, and must remain, an important government policy goal in order to promote and support wealth-building strategies across all communities.

Because homeownership is essential to individual and family asset building, we encourage policy makers to acknowledge and confront the institutional barriers preventing communities of color from accessing the housing market.

last 30 years – including income, employment and homeownership. Recovering from these losses means rebuilding rather than limiting ladders of opportunity for reaching the middle class – including the purchase of a home.

Because homeownership is essential to individual and family asset building, we encourage policy makers to acknowledge and confront the institutional barriers preventing communities of color

As one of the nation’s premier providers of HUD-approved housing counseling, the National Urban League knows firsthand how housing counseling can help ensure a positive home buying experience. Research shows that home buyers who work with housing counselors have better outcomes than those who navigate the system on their own. According to a recent NeighborWorks study, borrowers who receive housing counseling

services were one-third less likely than non-counseled borrowers to be delinquent on their mortgage. In addition, housing counseling plays a critical role in preventing mortgage abuses such as those that took place during the subprime mortgage boom. African-Americans and Hispanics were three times more likely to be steered into subprime loan products than their white counterparts, even though they qualified for traditional loans. As a result, according to the National Association of Real Estate Brokers, they were more than 70 percent more likely to go into foreclosure, through no fault of their own. They were sold loans the banks knew they could not repay.

Housing counseling can also increase minorities' access to the housing market. Integrating housing counseling services into the mortgage application process benefits all parties involved, including borrowers, lenders and servicers, by educating home buyers and preventing future delinquencies and foreclosures. As a result, housing counseling should be used as a compensating factor to help underserved borrowers gain access to the housing market.

Saving the necessary down payment to purchase a home is one of the major obstacles to attaining the American Dream. On average, African-Americans and

Hispanics have lower incomes than their white and Asian counterparts, making it much more challenging for them to save a down payment for an affordable home in a decent neighborhood. Further, African-Americans and Latinos are less likely to receive an inheritance or help from their parents to make a sizable down payment. According to the Center for Responsible Lending, it takes the typical African-American and Hispanic families 28 years and 17 years, respectively, to save for a 5 percent down payment, and 31 years and 26 years, respectively, to save for a 10 percent down payment.

The National Urban League has long supported a reasonable and affordable "skin in the game" down payment requirement, along with quality credit standards, strong documentation and sound underwriting. However, research shows that being able to make a large down payment is not an indicator of a borrower's ability to repay a loan. Rather, high down payment requirements reduce access to the housing market and force underserved communities to purchase FHA loans, which are generally more expensive for the borrower than conventional loans because of the mortgage insurance requirement.

The economic growth of this nation is closely tied to the reduction of

income and wealth inequality. Fair and equitable access to the housing market for all Americans is essential to these goals and to economically empowering communities of color. To increase access to the housing market, the National Urban League strongly favors the following policies:

- Increase investments to the HUD Housing Counseling Assistance Program in the federal budget.
- Support the Consumer Financial Protection Bureau's (CFPB) efforts, such as Qualified Mortgages (QM), to protect consumers from predatory lending practices.
- Establish and enforce meaningful affordable housing goals for Government Sponsored Enterprise (GSE) loans.
- Discourage policies that advocate arbitrarily high down payment requirements. ■



**National
Urban League**

Executive Summary

Key Findings

- Fewer minorities apply for conventional mortgages. Although Hispanics and blacks make up 17 percent and 12 percent the U.S. population, respectively, they represented only 5 percent and 3 percent of the conventional mortgage application pool.
- Blacks experience the highest loan application denial rates. 1 in 4 blacks will be denied their conventional loan application, as opposed to 1 in 10 whites.
- Wide disparities in homeownership rates among ethnic groups persist. 73.9 percent of whites own a home, whereas 60.9 percent of Asians, 50.9 percent of Hispanics, and 46.5 percent of blacks own.
- The rise and subsequent fall of home values in the U.S. housing bubble disproportionately affected black and Hispanic homeowners, measured by indexed home values between the peak of the market and the bottom, or “trough.”

“ It’s been more than 50 years since Dr. King fought for equality, yet it is apparent that the American dream of homeownership is not equally shared by all, even today. Our research shows that minority home buyers are encountering difficulties that often aren’t shared by white home buyers, and that even after they achieve the dream, they have been less likely to see a similar return on their investment. ”

Dr. Stan Humphries
Zillow Chief Economist

Who is applying for mortgages?

Who is successful?

For some communities, the answer is not always the same.

For millions of Americans, owning one's own home is a fundamental part of the American Dream. It's a goal shared equally among all people, regardless of race or ethnic origin. But while the goal is equally shared, the path to reaching that goal, and even experiences once homeownership is achieved, can be radically different among those races.

In this report, Zillow and the National Urban League examined recent trends in minority access to housing, outlining the different experiences among races when seeking a mortgage and buying and owning a home. We discovered a number of areas in which outcomes for minority groups, particularly blacks and Hispanics, differ greatly from those of white Americans. To perform our analysis we relied on Home Mortgage Disclosure Act (HMDA) data, Zillow Home Value Index data and unique information obtained from a survey performed by Ipsos for the purposes of this study.

Background

At a fundamental level, it is important to understand the characteristics and resources with which each group approaches the lending and homeownership process. Different education levels

among races, higher or lower incomes and varying credit scores all inevitably shape the home buying and homeownership experiences. There is not sufficient information in the HMDA data nor in the survey data to determine if any of the findings in this report reflect illegal discrimination. Rather, it is these critical differences in qualifications and resources among whites, blacks, Asians and Hispanics that undoubtedly help explain a majority of the findings related to the differences in outcomes by race.

In both the HMDA data and the survey data, blacks and Hispanics had a lower average income, as seen in Figure 1. Blacks and Hispanics who apply for a mortgage are also much more likely to have a lower credit score compared to whites and Asians. In addition, we found that of the surveyed Americans, Asians are much more likely to have achieved a higher level of education, which also contributes to their higher incomes.

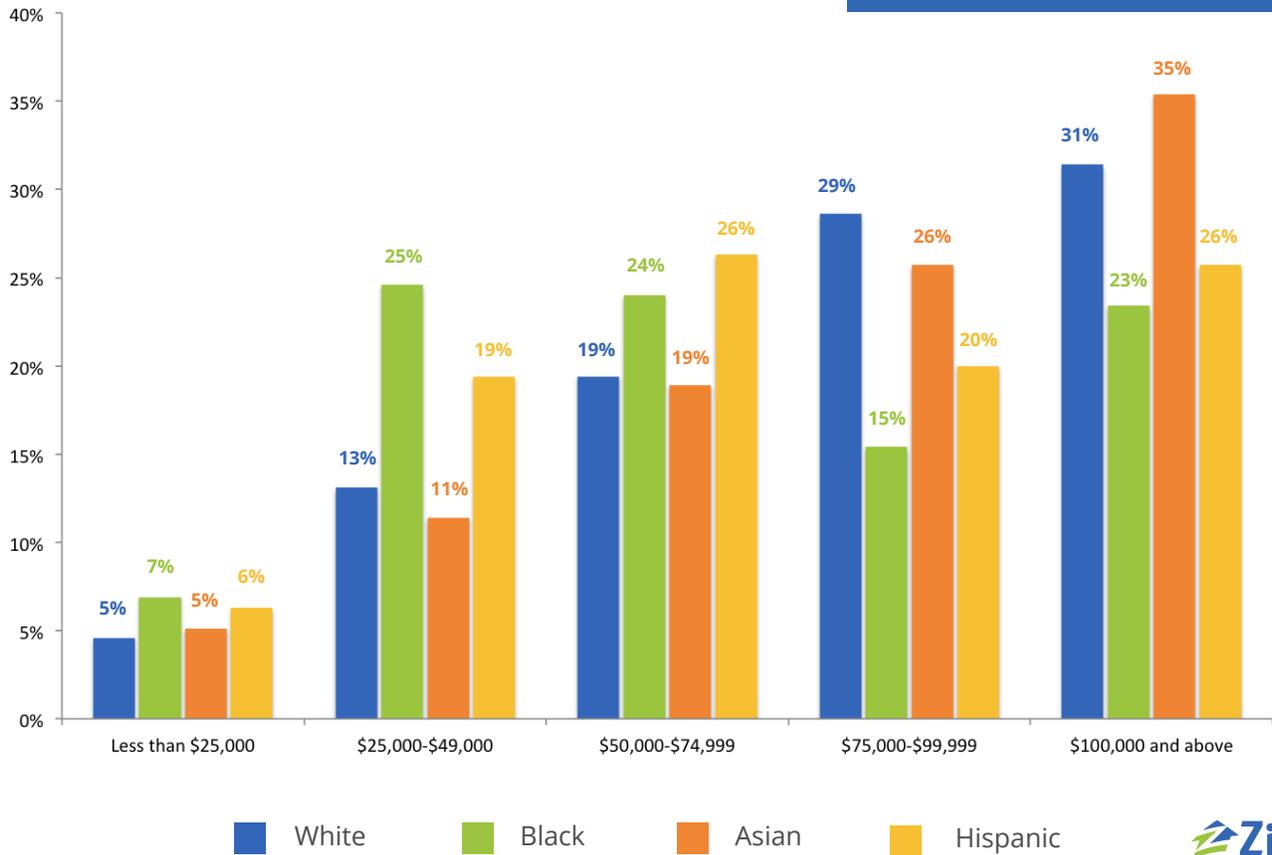
These unequal incomes naturally lead to stark differences in the amount of down payment that different races are able to afford. Blacks are much more likely to put down 5 percent or less as a down payment, while a majority of Hispanics contribute 6 percent

or more towards a down payment. Asians are more likely to have down payments of 20 percent or higher. Figure 2 shows the distribution of down payment amount by race.

Experience

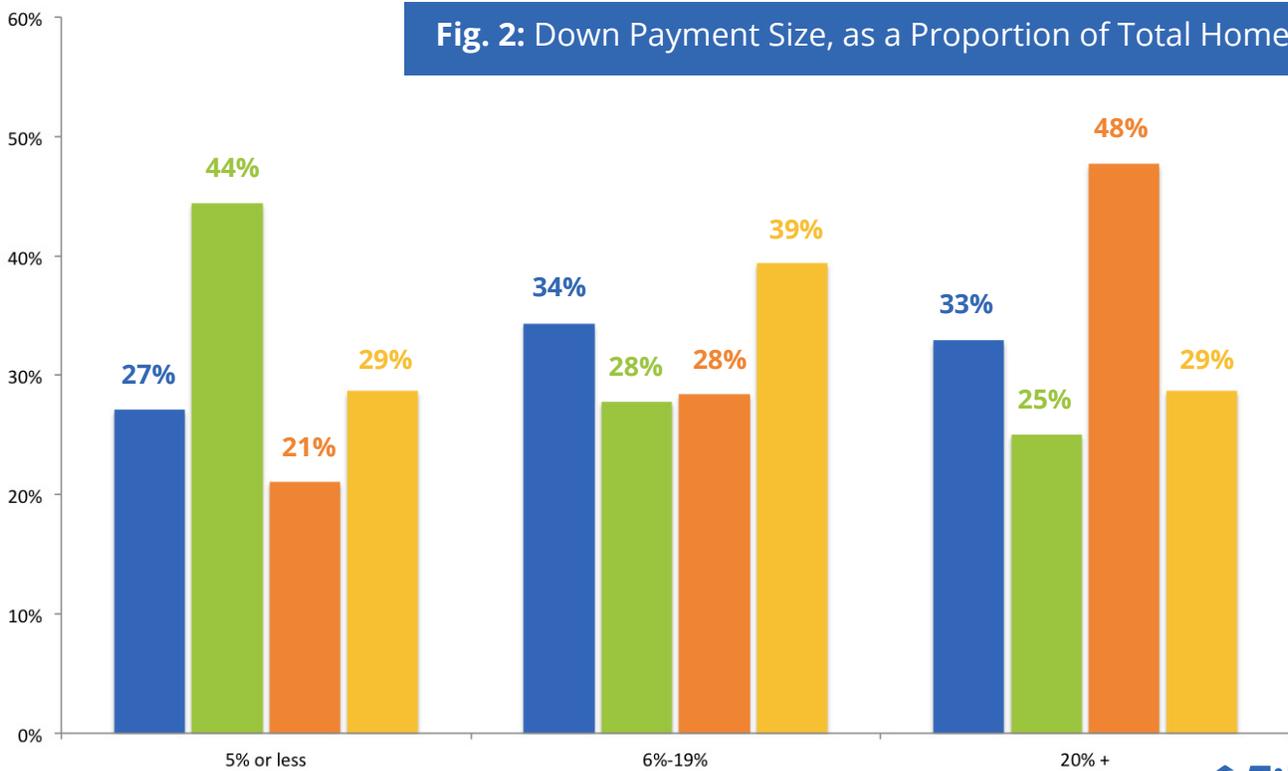
Regarding diversity in the home mortgage application experience, we found that blacks and Hispanics are less likely to apply for a mortgage to make a home purchase in the first place, and much less likely to be approved for one than whites and Asians. While blacks make up 12.1 percent of the U.S. population, they filed only 6 percent of all mortgage purchase applications in 2012. Hispanics make up 17.3 percent of the population and filed 9.4 percent of the applications. In contrast, whites make up 63 percent of the U.S. population and filed 64.8 percent of purchase applications. The differences are primarily seen within the conventional mortgage market. The racial and ethnic composition of FHA loan applications is much more similar to the racial and ethnic composition of the nation as a whole. Blacks and Hispanics are much more likely to apply for an FHA mortgage than a conventional loan when purchasing a home as more than half of black applicants (57.4 percent) and 60.3 percent of Hispanic applicants applied

Fig. 1: Annual Household Income



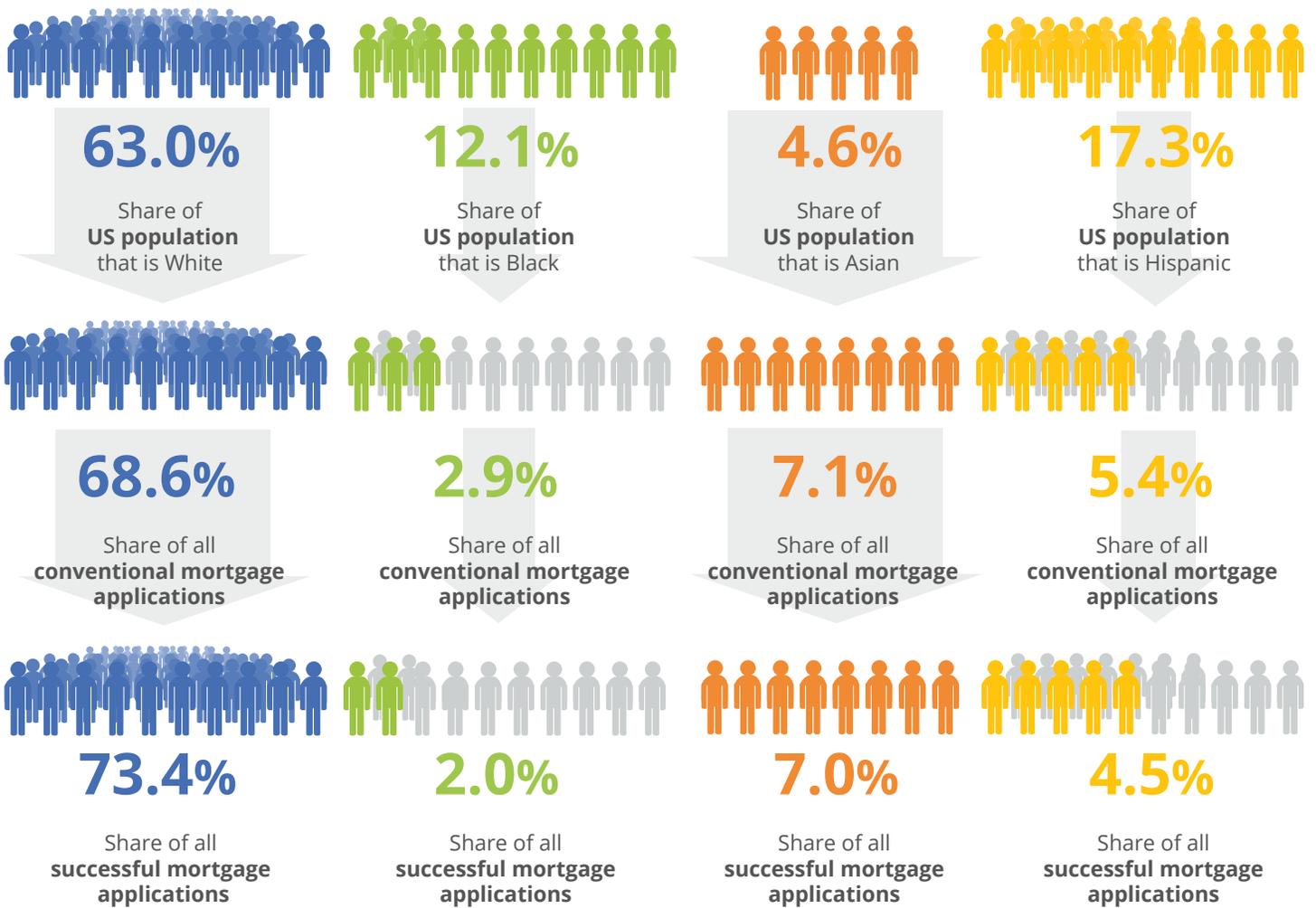
Zillow
Source: Ipsos Zillow Survey

Fig. 2: Down Payment Size, as a Proportion of Total Home Price



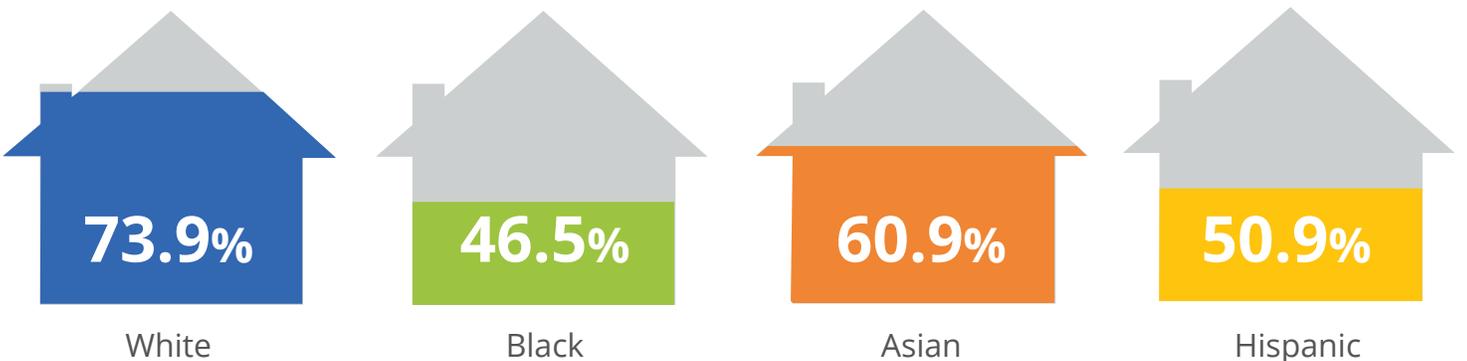
Zillow
Source: Ipsos Zillow Survey

Fig 3: Racial Composition of the Conventional Mortgage Application Process



Source: HMDA Data, 2012

Fig 4: Homeownership Rates (2011)



Source: American Community Survey 2011

for an FHA loan. In contrast, less than one-third (30.1 percent) of white applicants apply for an FHA loan. See Figure 3 for an overview.

According to HMDA records, we also found that blacks and Hispanics are much more likely than whites to have their mortgage application denied. When applying for a conventional loan, black applicants are 2.4 times and Hispanic applicants are 1.98 times more likely than white applicants to be denied. When applying for an FHA loan, black applicants are 1.75 times more likely and Hispanic applicants are 1.47 times more likely than white applicants to be denied. These trends are shown in Figure 5.

Overall, a majority of survey respondents from each race surveyed had a positive experience when applying for a mortgage

(as indicated by a rating of more than 8 on a 1-10 scale). A minority within each race surveyed felt that their race had at least some influence on their experience of trying to obtain a mortgage, though it remains unknown if respondents felt their race had a positive or negative influence on their experience. Specifically, 37 percent of Hispanics, 33 percent of blacks, 25 percent of Asians and 14 percent of whites said they thought race was a contributing factor in their experience.

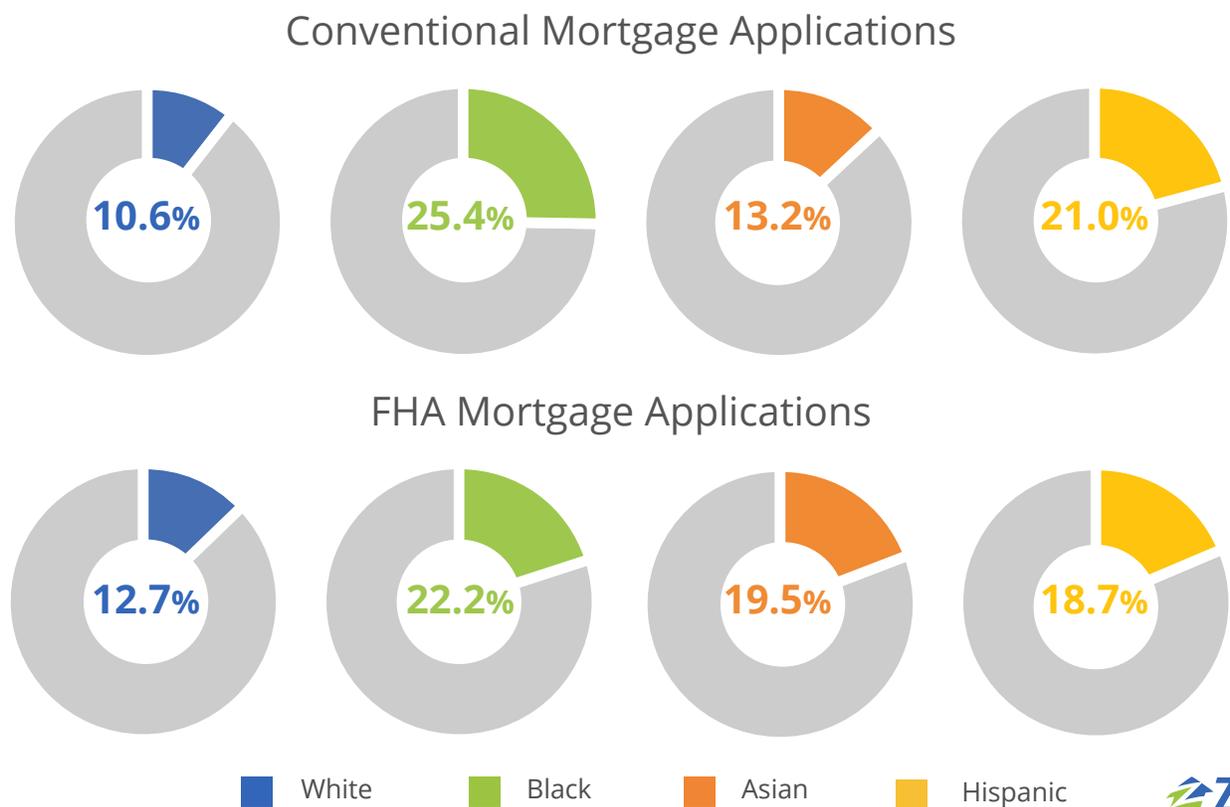
Respondents who said they felt race was a factor in their experience obtaining a mortgage were significantly more likely to have shopped around for multiple mortgage quotes. In general, Asians and Hispanics are more likely to have considered multiple loans from multiple lenders, while

blacks are more likely to have considered multiple loans from the same lender. Hispanics and Asians are more likely to go with a lender who was recommended to them, while blacks and Hispanics are more likely to recommend their lender to a friend or family member. In addition, Asians and especially Hispanics are more likely to have two or more mortgage applications. Blacks and Hispanics are more likely to have their mortgage process take longer.

Differential impacts of the housing recession and recovery

Over the last 13 years, the nation underwent a steep run-up in home values, followed by a grueling collapse of that housing bubble. Now, more than two years after

Fig. 5: Mortgage Denial Rates, by Loan Type



■ White ■ Black ■ Asian ■ Hispanic

Zillow
Source: HMDA data, 2012

home values bottomed, a robust housing recovery is currently underway. However, not everyone experienced the housing boom and bust in the same way.

Hispanic communities (where Hispanic individuals make up a larger share of the population than any other group) were hit hardest by the housing boom and bust, with home values falling 46.2 percent from the height of the bubble to the bottom. Black communities, where black individuals make up a larger share of the population

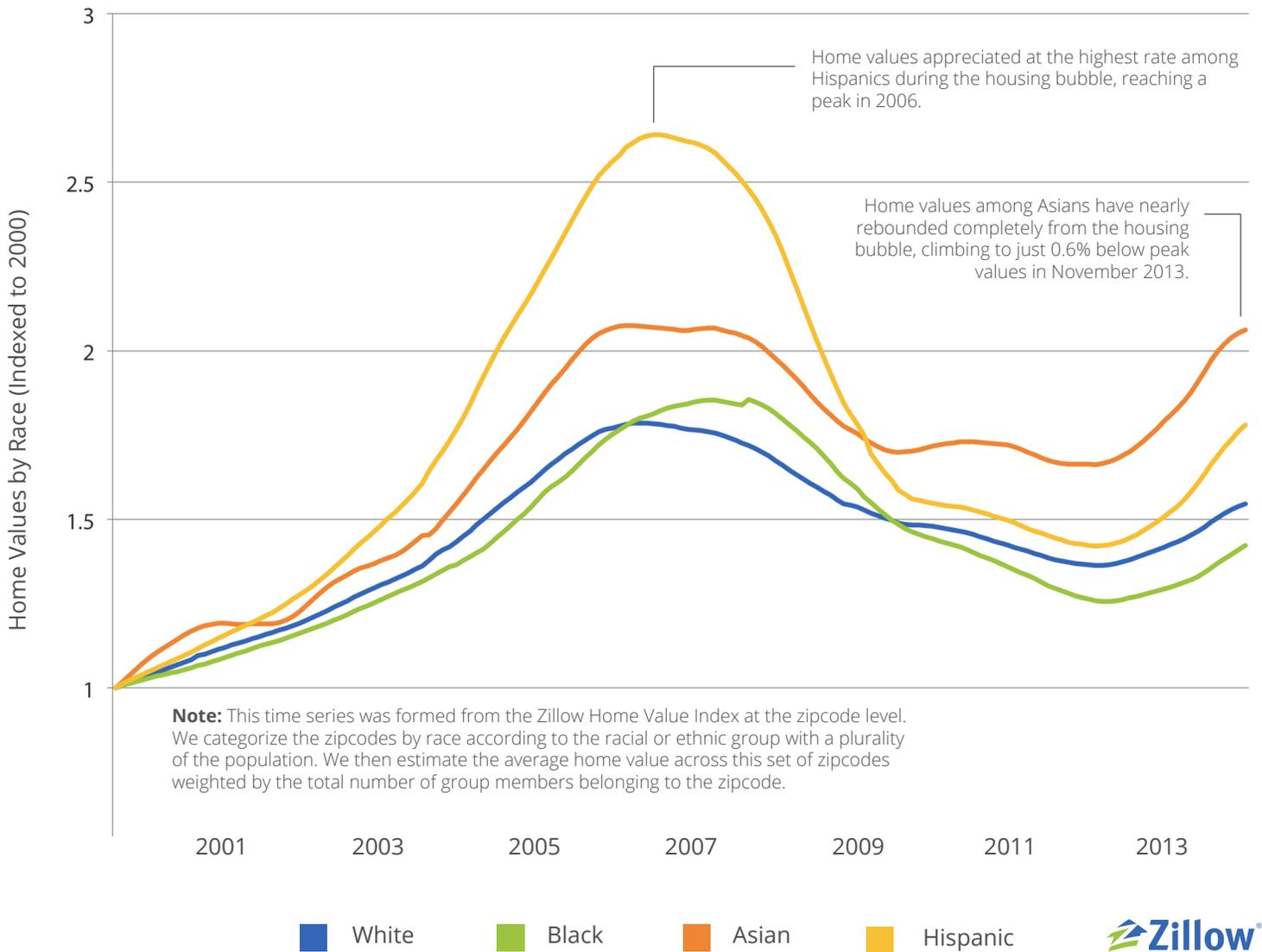
than any other group, were also hit hard, with home values dropping 32.3 percent over the same period. Drops of 23.6 percent and 19.9 percent were observed within white and Asian communities, respectively (see Figure 7).

For Hispanic communities, there has been something of a silver lining. Even though home values in Hispanic communities were hardest hit, they've been relatively faster to recover. Home values in Hispanic communities have increased 25.3 percent from the bottom over the

past two years. Comparatively, home values in black communities have only increased 13.2 percent.

Figure 7 shows the difference in current home values relative to their post-recession bottom (i.e., the low point in home values subsequent to the boom-era peak), and clearly demonstrates how much faster Asian communities have rebounded. Asian communities are in full recovery, with current home values only 0.6 percent below their peak levels. Hispanic communities are forecasted to do

Fig. 6: Indexed Home Values, 2000-2013



Sources: Zillow November 2013, American Community Survey 2011

the best over the next year in terms of home value growth. According to the Zillow Home Value Forecast, Hispanic communities will appreciate by 16.8 percent, Asian communities by 15.6 percent, white communities by 8.3 percent; and black communities by 8.5 percent.

Much of the drop and subsequent rise in home values can be attributed to the location of these communities. As Map 1 shows, many Asian communities are located on the West Coast, which has had an incredibly strong recovery.

While Hispanic communities were hit incredibly hard, with many of them located in the “sand states” of California, Arizona and Nevada, they are rebounding well (see Map 2). As Map 3 shows, blacks are located in many cities nationwide that have had less robust housing recoveries, putting a damper on their forecasted growth.

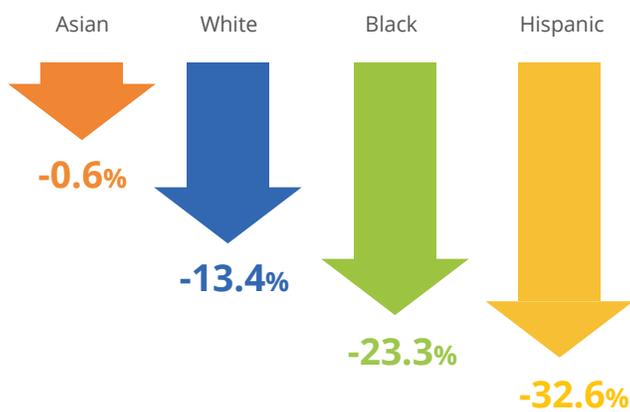
Unfortunately, during the housing bust, homeowners not only lost an enormous amount of value in their homes, but were frequently foreclosed upon, losing their

homes altogether. We examined changes in homeownership rates over the last decade. In 2011, 46.5 percent of blacks and 50.9 percent of Hispanics owned their home. The homeownership rate for whites was 73.9 percent. Ownership rates for white and Hispanics have hardly changed over the course of the last decade (-0.1 and 0.1 percentage points respectively). However, among blacks the ownership rate dropped 2.4 percentage points, while the homeownership rate of Asians increased by 2.4 percentage points (see Figure 4).

Fig. 7: Differences in Home Values, Over Time

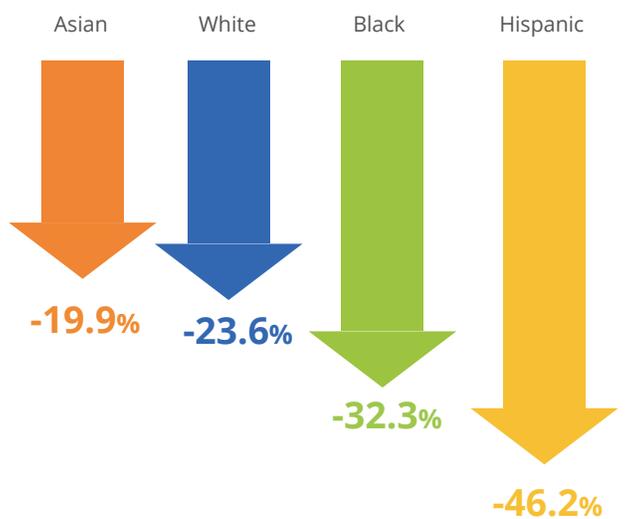
Current Change from Peak

The percentage difference in indexed ZHVI levels between the highest (peak) value and the current value.



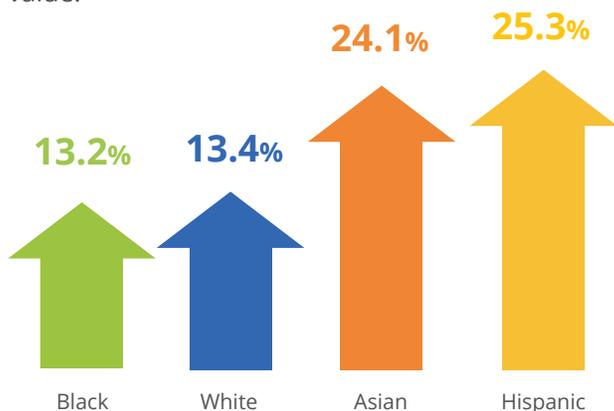
Peak to Trough

The percentage difference in indexed ZHVI levels between the highest (peak) value and lowest (trough) value.



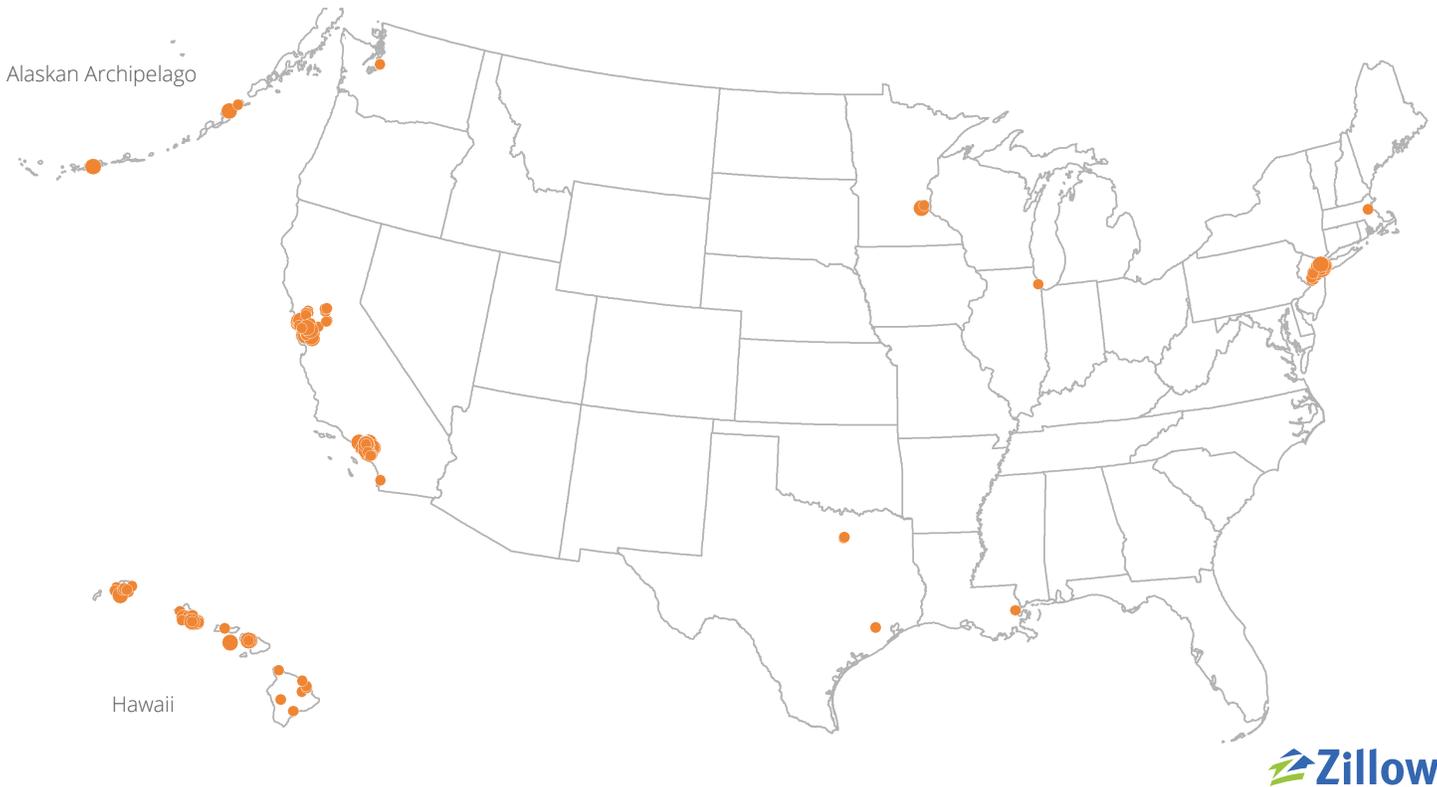
Trough to Current

The percentage difference in indexed ZHVI levels between the highest (peak) value and the current value.

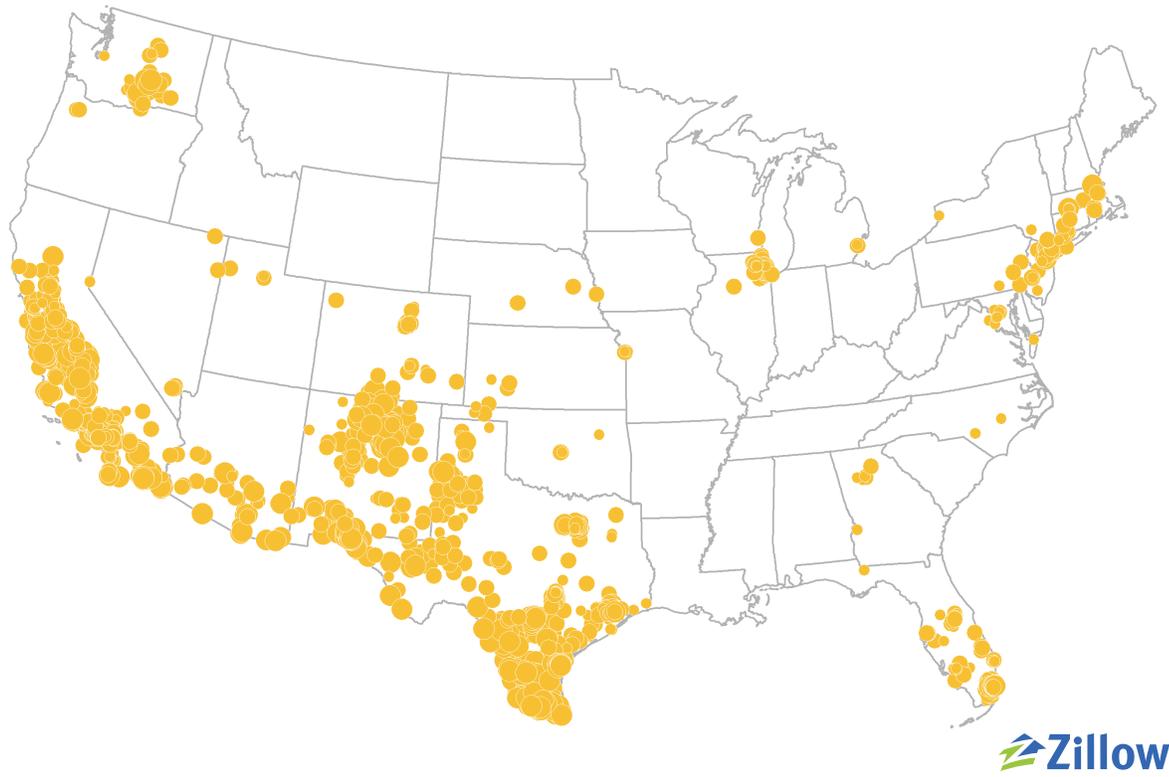


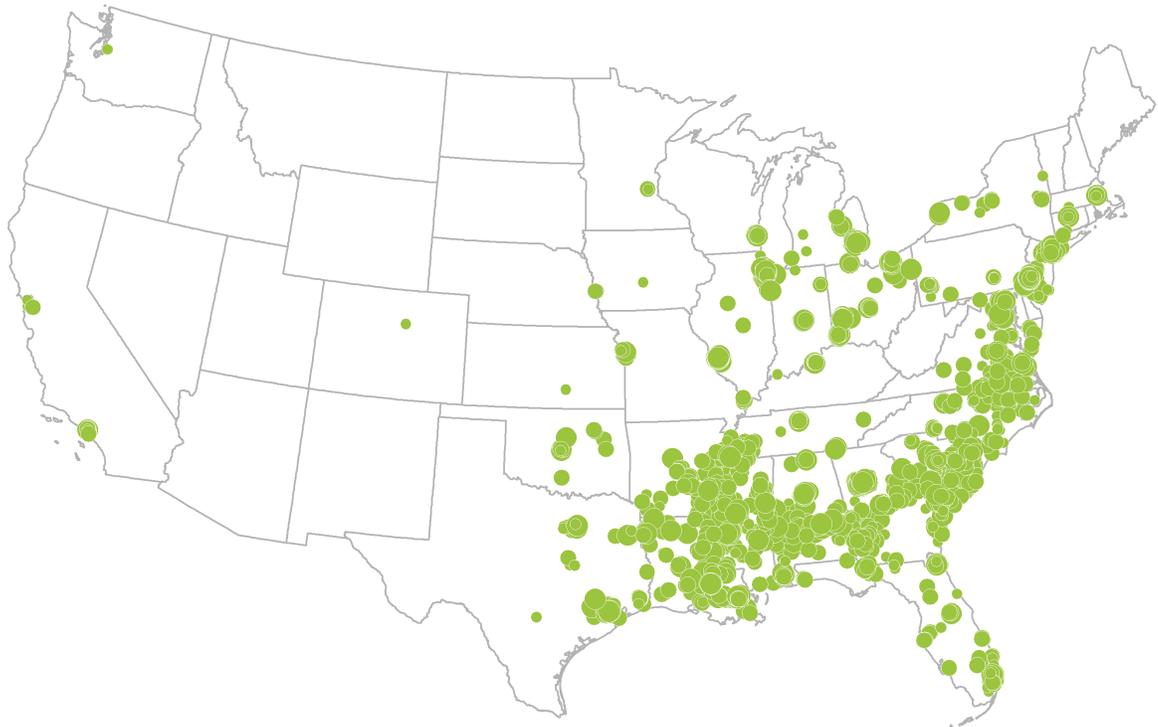
Sources: Zillow November 2013, American Community Survey 2011

Map 1: Zipcodes with Asian Plurality



Map 2: Zipcodes with Hispanic Plurality





Map Source: American Community Survey 2011

A note about our survey results

These are some of the findings of an Ipsos poll conducted December 19th – 27th, 2013 on behalf of Zillow. For the survey, a sample of 700 randomly-selected adults aged 18 and over residing in the U.S. who have applied for a mortgage in the past three years were interviewed via Ipsos' U.S. online panel. With a sample of this size, the results are considered accurate within +/-3.7 percentage points 19 times out of 20, of what they would have been had the entire population of adults in the U.S. who have applied for a mortgage in the past three years been polled. The margin of error will be larger within sub-groupings of the survey population. The sub-group of mortgage applicants who fall within each of the following race/ethnicities (Caucasians, African Americans, Asians/Pacific Islanders and Hispanics/Latinos) is 175, which has a margin of error of +/-7.4. All sample surveys and polls may be subject to other sources of error, including, but not limited to coverage error, and measurement error. In this report when referencing the survey data the authors used the terms white and black as a proxy for Caucasian and African American.

A House Divided:

How Color Changes the
Path to Homeownership

In 2007, U.S. median home values began falling in a precipitous slide that destroyed the home equity of millions of U.S. homeowners and in turn, shook their confidence. An aggregate national view, however, hides the differential impacts of the housing boom and bust on minority populations across the country. In 2000, before the onset of the housing bubble, almost half of every black and Hispanic household owned their own homes (48.9 and 50.8 percent, respectively), compared to almost three-quarters of white households (74 percent).

While the U.S. housing market recovery is fully underway and housing values continue to rise after their hard fall, the story has hardly improved. According to census data, 5 percent fewer black households live in homes they own in 2011 as compared to 2000, dropping the ownership rate to 46.5 percent. For the same time period, the ownership rate of white and Hispanic households was essentially unchanged. This paper takes a look back on the diverging experiences of white, black, Asian, and Hispanic Americans and explores the current access minority groups have to mortgage credit. The disparities in current access and past experience continue to challenge the goals of equal opportunity for all.

SECTION 1. HOME MORTGAGE APPLICANTS: SHRINKING DIVERSITY

Current Composition of Mortgage Applicants

To understand the differences seen within the pool of mortgage applicants, it is first important to understand that there are substantial income differences between white, black, Asian, and Hispanic populations in this country, and these fundamental disparities affect the abilities of members of each group to accumulate financial assets, such as savings for a down payment on a home loan. White Americans, on average, earn \$62 thousand per household. In comparison, black American households earn \$39 thousand and Hispanic Americans \$43 thousand on average. Asian Americans are generally much more affluent, making the most of any group at \$77 thousand per household on average. On average, lower incomes mean a greater share of earnings goes towards living expenses and less towards savings. It is then unsurprising that blacks and Hispanics are less likely to have the savings needed to apply for a mortgage to make a home purchase, and therefore end up renting.

Mortgage applicants, however, tend to be more affluent than the population in general. Mortgage applicants for home purchase loans in 2012 have a median income of \$67 thousand, or 20 percent higher than the national median of \$56 thousand. The same applies for racial/ethnic groups. Those who do apply for a home loan tend to be each group's more affluent members. However, even among mortgage applicants, there are large disparities by race. Black and Hispanic applicants for conventional home loans earn much less than their white counterparts – by more than 25 percent. Federal Housing Administration (FHA) loan applicants play on a more level field. Within this set, blacks and Hispanics earn \$48 and \$45 thousand a year – 14.3 and 19.6 percent less than white FHA applicants, respectively.

In turn, the pool of applicants for primary mortgages does not reflect the diversity of the U.S. population as a whole. Blacks make up 12.1 percent of the total population, yet submitted only 6 percent of all applications for primary mortgage loans in 2012. There is a similar drop-off for Hispanics. Making up 17.3 percent of the total U.S. population, Hispanics contribute only 9.4 percent of these applications. These discrepancies are exacerbated within the pool of applications for conventional mortgages. Black applicants submit only 2.9

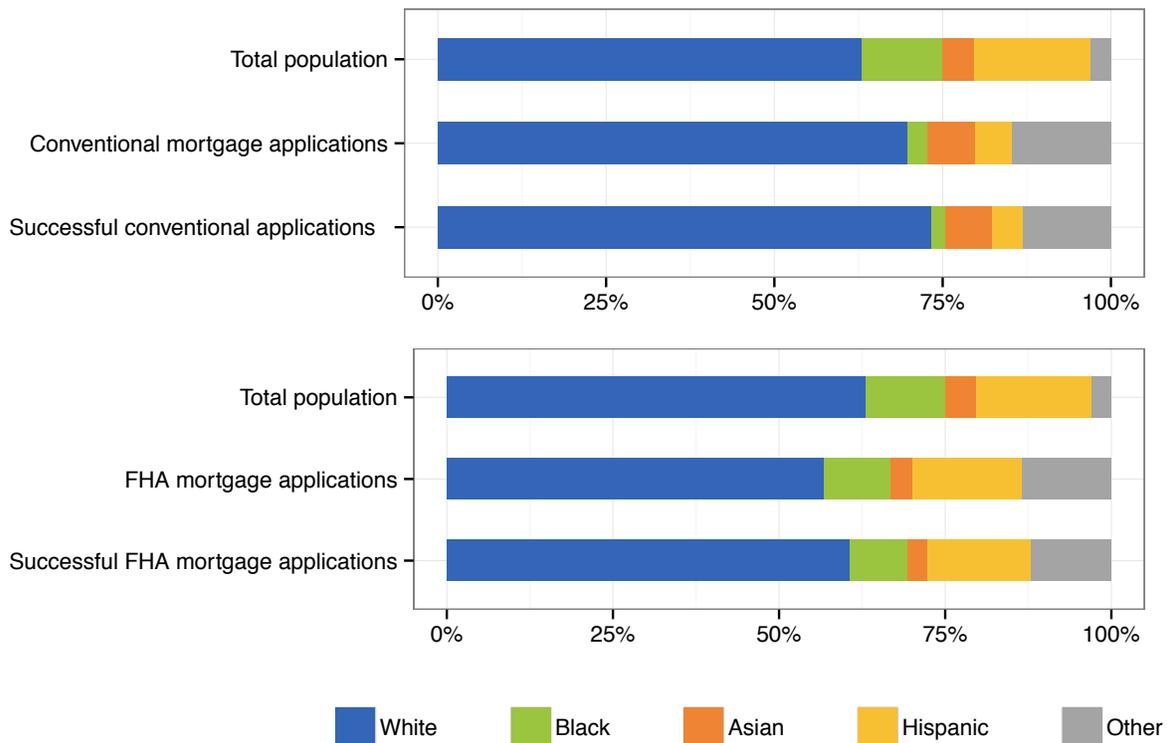
Table 1: Median household income (in thousands of dollars)

	All	White	Black	Asian	Hispanic
Income of the total U.S. population	56	62	39	77	43
Income of applicants for purchase mortgage	67	70	53	85	49
..... applying for a conventional loan	80	81	59	94	57
..... applying for a FHA loan	53	56	48	60	45

Notes: Data for the total population is drawn from the 2011 5-year American Community Survey (ACS). Data on mortgage applications is drawn from 2012 HMDA records. See the Data section in the Appendix for a discussion of HMDA records and filters used. The median income of applicants assumes a one-to-one application-to-applicant ratio. See Appendix Table 11 for the full set of income results.

of the applications for conventional home loans and Hispanics only 5.4 percent. On the other hand, whites submit 69.8 and Asians 7.1 percent of conventional applications despite making up 63 and 4.6 percent, respectively, of the total U.S. population. The racial and ethnic composition of FHA loans, with lower down payment requirements, more readily reflects the composition of the U.S. as a whole. Among the set of FHA applications for a home loan, 56.8 percent are from white applicants, 10.1 from black, 16.5 from Hispanic and 3.2 percent from Asian.

Figure 1: Racial/ethnic composition of the U.S. population versus home loan applicants.



Notes: See notes from Table 1. Successful applications for this graphic are considered those that resulted in the loan being originated.

Table 2: Racial/ethnic composition of the U.S. population versus home loan applicants

	White	Black	Asian	Hispanic	Other
Total population	63%	12.1%	4.6%	17.3%	3%
Primary mortgage applications	64.8%	6%	5.3%	9.4%	14.5%
Conventional mortgage applications	69.8%	2.9%	7.1%	5.4%	14.7%
FHA mortgage applications	56.8%	10.1%	3.2%	16.5%	13.4%

Notes: These numbers accompany Figure 1. See the Appendix Table 8 for similar percentages for home refinancing applications.

Changing Number of Mortgage Applications Through the Recovery

Between 2010 and 2011, the number of applications for primary mortgages to purchase a home was still falling along with overall home sales. As national home values continued to drop, falling 9.1 percent from January 2010 to December 2011, the total number of applications in 2011 fell 7.2 percent from the annual total in the previous year. The drop in applications was most notable among black (-12.4 percent) and Asian (-13.4 percent) applicants and for FHA loan applications in general (-17.2 percent).

Table 3: The pattern of applications for primary mortgages to secure home purchase

	All	White	Black	Asian	Hispanic
Number of applications in 2012	2,805,206	1,817,691	169,261	147,564	263,479
Change between 2011 and 2012	13.3%	15.9%	6.4%	14.8%	4.3%
Change between 2010 and 2011	-7.2%	-5.6%	-12.4%	-13.4%	-7.3%

Subset: Conventional loan applications

	All	White	Black	Asian	Hispanic
Number of applications in 2012	1,597,309	1,114,912	46,892	113,985	86,865
Change between 2011 and 2012	23.4%	25.2%	19.5%	20.3%	15.4%
Change between 2010 and 2011	-0.8%	0.7%	3.3%	-12.9%	4.7%

Subset: FHA loan applications

	All	White	Black	Asian	Hispanic
Number of applications in 2012	962,041	546,426	97,132	30,324	158,851
Change between 2011 and 2012	-0.9%	0%	0.3%	-2.9%	-1.7%
Change between 2010 and 2011	-17.2%	-17.3%	-20.5%	-16.9%	-13.4%

Subset: VA loan applications

	All	White	Black	Asian	Hispanic
Number of applications in 2012	245,856	156,353	25,237	3,255	17,763
Change between 2011 and 2012	16.9%	19%	10%	26%	12%
Change between 2010 and 2011	10%	13%	5.2%	21.3%	12.7%

Notes: Mortgage application counts are drawn from 2010, 2011, and 2012 HMDA records. See the Data section in the Appendix for a discussion of HMDA records and filters used. See Appendix Table 9 to review the changes in applications for home refinancing.

In January 2012, national home values hit bottom, but the home value increases over that year began to bolster confidence. Record low interest rates provided an opportunity for many aspiring homeowners and investors to purchase bargain value homes. During the first year of the housing market recovery we began to see increased confidence directly translate into a significant pick-up in the number of new applications for home purchase loans. In 2012, the total number of applications for a primary home purchase mortgage was 13.3 percent higher than in 2011. However, much of this pick-up in loan application activity was arguably driven by investors and the affluent: the increase between 2011 and 2012 is primarily within the conventional loan market. The annual number of FHA loan applications remained essentially the same, down 0.9 percent from the total count in 2011.

While not totally left out of the surge in those seeking homeownership, the increases from black and Hispanic applicants are small compared to whites and Asians. Applications from white and Asian applicants for home purchase loans went up 15.9 and 14.8 percent, respectively, between 2011 and 2012. Comparatively, the number of applications in 2012 from blacks and Hispanics were only 6.4 and 4.3 percent higher, respectively, than in 2011. Across all groups, the increases in the number of applications were driven by the market for conventional primary loans. Interestingly, the increase in conventional home purchase applications is comparable between Asian and black applicants, 20.3 and 19.5 percent respectively, though whites still outpace at 25.2 percent, and Hispanics still lag at 15.4 percent.

SECTION 2. DIVERSITY OF EXPERIENCE IN THE HOME MORTGAGE APPLICATION PROCESS

Mortgage Options and Application Success

Not only are there large differences in the general characteristics of mortgage applicants across race and ethnic groups, there are also significant differences in the success of these applicants through the approval process.

Since it has lower down payment requirements than a conventional loan, an FHA loan is often a better choice for low-income households who do not have sufficient savings for a conventional loan. Given our previous discussion on the income disparities across races, it is unsurprising that black and Hispanic applicants, unlike white and Asian, are more likely to apply for an FHA loan. Over half of the applications from black applicants (57.4 percent) and 60.3 percent from Hispanic applicants, are for HUD-backed FHA loans. In comparison, only 30.1 percent of white applicants and 20.6 percent of Asian applicants turn to FHA mortgages to finance their home purchase. Because of this, and the large differences in the distributions of income reported between FHA and conventional loan applications, even within each racial/ethnic group^[1], it is useful to consider the loan types to be two separate tracks when analyzing the success of applicants by race or ethnicity.

Table 4: Breakdown of primary mortgage applications by racial/ethnic group

	White	Black	Asian	Hispanic
Percent of applicant racial/ethnic group by loan type				
Conventional loan	61.3%	27.7%	77.2%	33%
FHA loan	30.1%	57.4%	20.6%	60.3%
Denial rate (of all complete applications)				
... for a conventional loan	10.6%	25.4%	13.2%	21%
... for an FHA loan	12.7%	22.2%	19.5%	18.7%
Origination rate (of all applications submitted)				
... for a conventional loan	73%	47.3%	68.1%	57.5%
... for an FHA loan	71.6%	57.9%	62.9%	63.5%
Percent of all applications submitted				
... where funds were originated	72.6%	55.2%	66.9%	61.5%
... where the applicant declined funds after approval	3.7%	3.3%	5.1%	4%
... where funds were denied by financial institution	10%	19.3%	12.7%	16.7%
... where the application was withdrawn or left unfinished	10.4%	12.9%	12.2%	12.6%

Notes: See notes from Table 1. See Appendix Table 10 for the full set of results.

^[1] Within racial/ethnic groups the median income stated on FHA applications by white, black, Asian, and Hispanic applicants is 31, 19, 36, and 21 percent lower, respectively, than the median income reported on conventional loan applications, in order, from those same groups.

Conventional

Conventional loan applications from black applicants are 2.4 times as likely to be denied compared to an application from a white applicant. A full quarter of all conventional applications from black applicants are rejected by a financial institution, compared to only 10.6 percent of applications from white applicants. Applications from Hispanic applicants don't fare much better; with a denial rate of 21 percent, Hispanic applications are almost twice as likely to be denied. The denial rate for applications from Asian applicants (13.2 percent) is slightly higher than white applicants' denial rate. It is not possible to distinguish discrimination in approval procedures from the characteristics of the lender from HMDA data alone. While HMDA data report income and the value of the loan, credit scores and other necessary data are unavailable.

Income alone is not useful when trying to uncover why denial rates are higher among black and Hispanic applications. Lower-income applicants are likely applying for less expensive housing. Even comparing the loan value as a multiple of annual income is vastly insufficient. Applicants with better credit scores are often quoted lower rates. Using real quote data from Zillow's Mortgage Marketplace, we found that the average APR quoted by participating banks for individuals with a credit score above 720 was 4.41 percent, while inquiries with credit scores between 620 and 640 were quoted 4.8 percent. Without rate or loan-term information, we cannot estimate traditional debt-to-income ratios that compare monthly housing debt payments (with interest) as a fraction of monthly income. In fact, the median loan-value-to-annual-income ratio is comparably similar between originated and denied applications, with the exception of applications from Asian applicants, whose loan-value-to-annual-income ratio is 9.3 percent higher among denied applicants than among loans resulting in the origination of funds.

Table 5: Nominal information stated on conventional mortgage applications by racial/ethnic group

	White	Black	Asian	Hispanic
Median income (in \$1,000) of applications	81	59	94	57
..... that resulted in the origination of funds	84	68	96	62
..... denied by the financial institution	62	48	75	48
Median requested loan value as a multiple of income	2.29	2.33	2.92	2.54
..... that resulted in the origination of funds	2.29	2.33	2.90	2.55
..... denied by the financial institution	2.33	2.27	3.17	2.55

Notes: Data on mortgage applications is drawn from 2012 HMDA records. See the Data section in the Appendix for a discussion of HMDA records and filters used. The median income and loan value of applicants assumes a one-to-one application-to-applicant ratio. See Appendix Tables 11 and 12 for full income and loan-value-to-annual-income results.

FHA

While denial rates among FHA applications are still higher for black applicants than any other group, it is interesting that moving from the pool of conventional loan applications to FHA applications drops the denial rates for applications from black and Hispanic applicants and increases the denial rate for white and Asian applicants. FHA applications from black applicants remain more likely to be denied, but are now "only" 1.75 times as likely as a white applicant to be denied, with a denial rate of 22.2 percent. Among the pool of FHA applications, applications from Asian applicants are more likely to be denied, though marginally, than those from Hispanic applicants, with a denial rate of 19.5 and 18.7 percent, respectively.

Table 6: Nominal information stated on FHA mortgage applications by racial/ethnic group

	White	Black	Asian	Hispanic
Median income (in \$1,000) of applications	56	48	60	45
..... that resulted in the origination of funds	57	50	62	46
..... denied by the financial institution	51	45	55	42
Median requested loan value as a multiple of income	2.66	2.88	3.40	3.26
..... that resulted in the origination of funds	2.65	2.86	3.34	3.22
..... denied by the financial institution	2.73	3.01	3.69	3.40

Notes: See notes from Table 5.

Mortgage Experience

Since HMDA data can't reveal how people feel about the mortgage process experience or uncover perceived racial or ethnic bias in the home mortgage finance system, which in itself can discourage minority applicants from the goal of homeownership, Zillow conducted a survey to obtain information unavailable in HMDA records. We surveyed 700 U.S. individuals that applied for a mortgage in the past three years.^[2]

A majority of respondents from each ethnic group surveyed had an overall positive experience when applying for a mortgage. Fifty seven percent of whites and blacks, and 58 and 63 percent of Asians and Hispanics, respectively, rated their experience as an eight or above on a 10-point scale. Given all the paperwork and the significant financial commitment involved with a mortgage, it is not surprising that these numbers are not higher. However, a minority within each ethnic group surveyed felt that their race had at least some influence on their experience trying to obtain a mortgage. Blacks (33 percent), Hispanics (37 percent), and Asians (25 percent) are all significantly more likely than whites (14 percent) to believe their race or ethnicity was a contributing factor in their experience. It is possible that in order to navigate a financial system where racial bias exists, minorities may respond by shopping for mortgages within their networks. For example, Hispanics and Asians are more likely than other groups to go with a recommended lender, while black and Hispanic applicants are more likely to recommend their lender to others. So stating that race was a contributing factor does not necessarily translate into discrimination. It could also signal that by finding a lender within their own network or community (defined along racial or ethnic lines), respondents felt that their race benefited them. Of course, it is still important to understand that even under this scenario, having to limit sources of funding to those only within a given network could be costly.

The costs of actual or perceived racial bias are also measured in time and effort, not just by more limited funding sources. Among respondents who felt that race was a factor in their mortgage application experience, applicants were significantly more likely to have shopped around for multiple mortgage rates. These respondents may have shopped around until they felt race was no longer to their disadvantage. Perhaps for this reason, blacks and Hispanics, the two groups most likely to believe race was a factor, are more likely to have their mortgage process take longer. Twenty percent of black applicants and 18 percent of Hispanic applicants spent three months or more in the pursuit of a home purchase loan compared to only 12 and 9 percent of whites and Asians, respectively. See Figure 2.

^[2] Reported are some of the findings of an Ipsos poll conducted December 19th - 27th, 2013 on behalf of Zillow. For the survey, a sample of 700 randomly-selected adults aged 18 and over residing in the U.S. who have applied for a mortgage in the past three years were interviewed via Ipsos' U.S. online panel. With a sample of this size, the results are considered accurate within +/-3.7 percentage points 19 times out of 20, of what they would have been had the entire population of adults in the U.S. who have applied for a mortgage in the past three years been polled. The margin of error will be larger within sub-groupings of the survey population. The sub-group of mortgage appliers who fall within each of the following race/ethnicities (Caucasians, African Americans, Asians/Pacific Islanders and Hispanics/Latinos) is 175, which has a margin of error of +/-7.4. All sample surveys and polls may be subject to other sources of error, including, but not limited to coverage error, and measurement error. In this report when referencing the survey data the authors used the terms white and black as a proxy for Caucasian and African American.

In this same vein, Asians and Hispanics in general are more likely to have considered multiple loans from multiple lenders, and are more likely to submit more than one application. Twenty seven percent of Asian and 37 percent of Hispanic respondents claimed to have submitted two or more applications in their pursuit of home financing, whereas this share is 22 and 16 percent among black and white respondents, respectively. This coincides with our findings from 2012 HMDA records: applications submitted by Asians and Hispanics and approved by the financial institution are declined by the applicants 7.1 and 6.1 percent of the time, respectively, whereas this share is 4.8 among white and 5.6 percent among black applications. Survey results also suggest that blacks are more likely to have considered multiple loans from the same lender. Whether this translates into separate applications through the same lender is not clear or discernable using HMDA data.

We discussed earlier that Asian and white applicants are far more likely than black or Hispanic applicants to apply for conventional loans over FHA loans. Commiserate with this result, Asian and white applicants are more likely to put at least 20 percent down on their mortgage, whereas Hispanic and black applicants are more likely to have down payments of less than 20 percent. Over forty percent of black survey respondents reported applying for down payments of 5 percent or less. See Figure 3.

Figure 2: Key Survey Results: Time spent seeking a mortgage

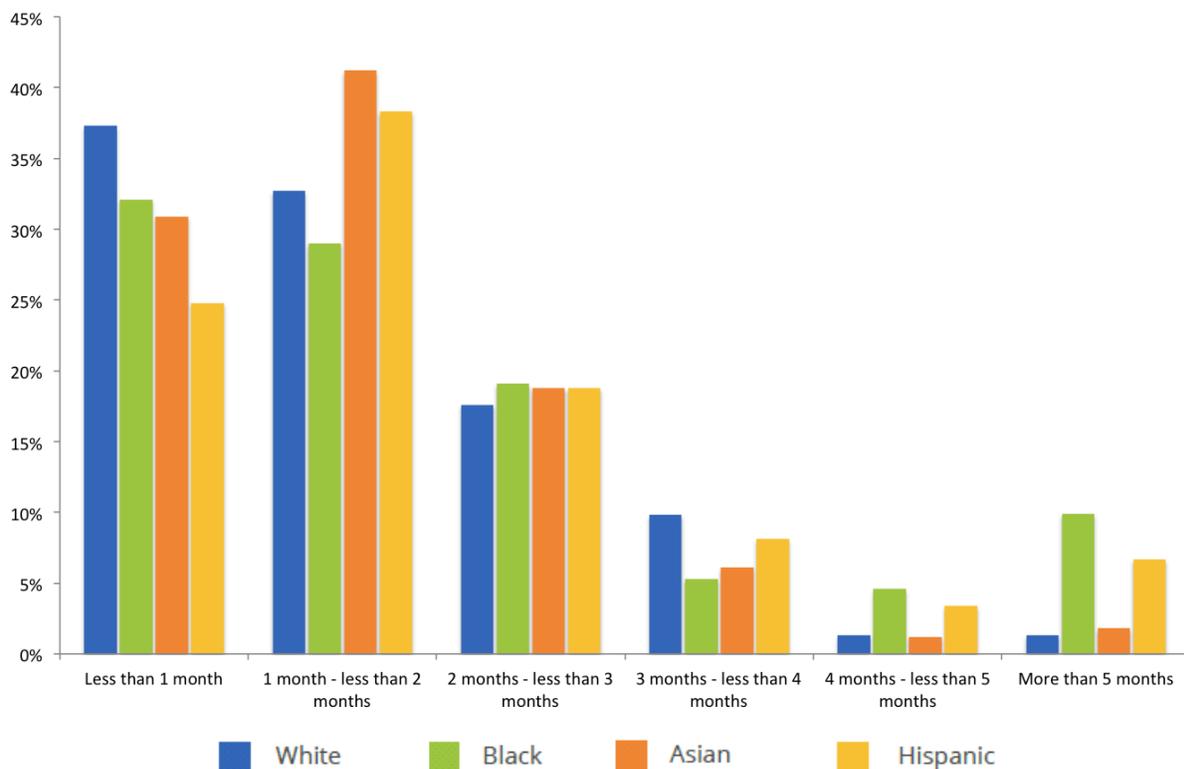
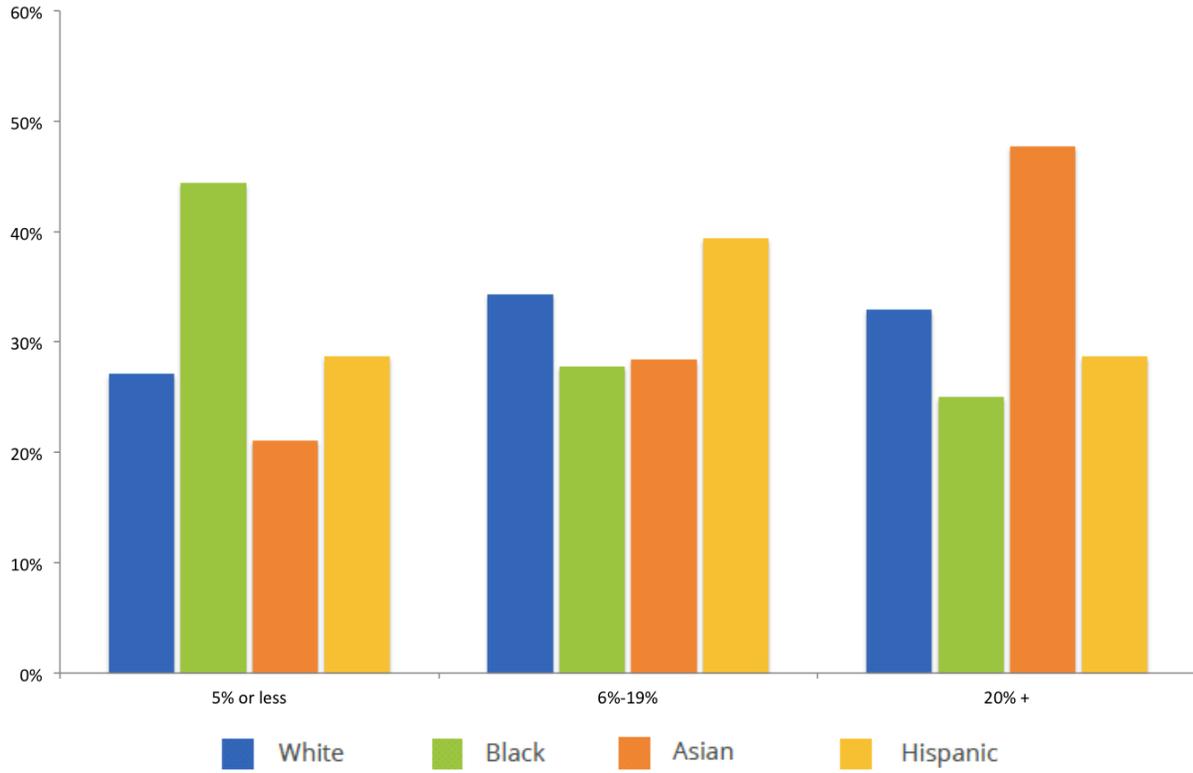


Figure 3: Key Survey Results: Downpayment as a proportion of home value

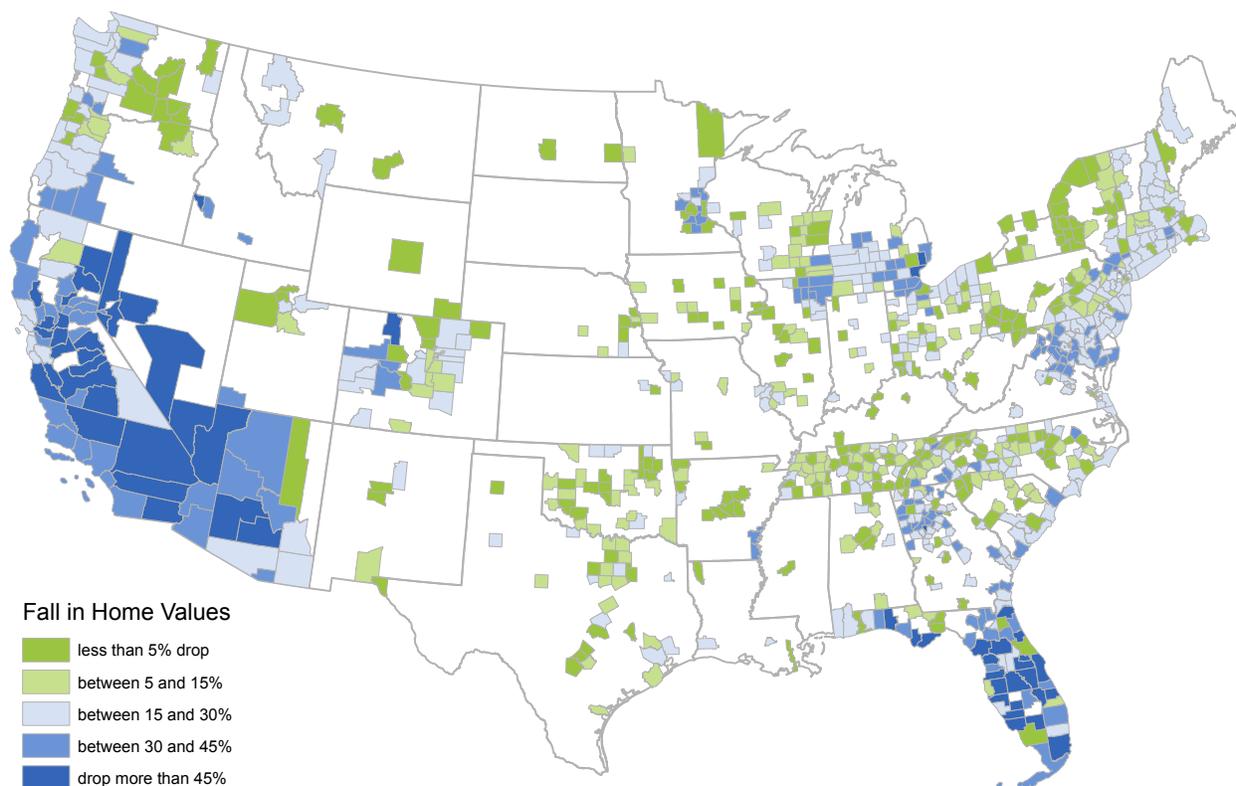


SECTION 3. DIFFERENTIAL IMPACTS OF THE HOUSING RECESSION

From 2000 until the beginning of 2007, national housing values grew at an unsustainable pace. Over those six years, home values appreciated 63 percent, translating to an average annual appreciation rate of 8.5 percent. In comparison, over the 15 years before the bubble (1985 through 1999) annual appreciation averaged only 4.2 percent^[3]. It soon became clear that home values were flying too close to the sun, and like Icarus, began to plummet. By January 2012, national home values hit bottom, having fallen 22.8 percent from their peak in April 2007. During the first quarter of 2012, 31.4% of U.S. homeowners with a mortgage were underwater, owing more than their homes were worth.

As painful as the national story sounds, it hides the differential impacts to different groups across the country. The housing bubble and its bust were by far a bigger roller coaster for popular supply-constrained urban areas (like the cities of Los Angeles and San Jose, where home values fell 39 and 30 percent from peak to trough, respectively) and in speculative markets with high rates of construction during the bubble (like the cities of Las Vegas, Phoenix and Miami, where home values fell 64, 58 and 55 percent, respectively). Figure 4 maps the fall in county median home values from their peak level to their troughs.

Figure 4: Drop in home values from peak to trough for U.S. counties

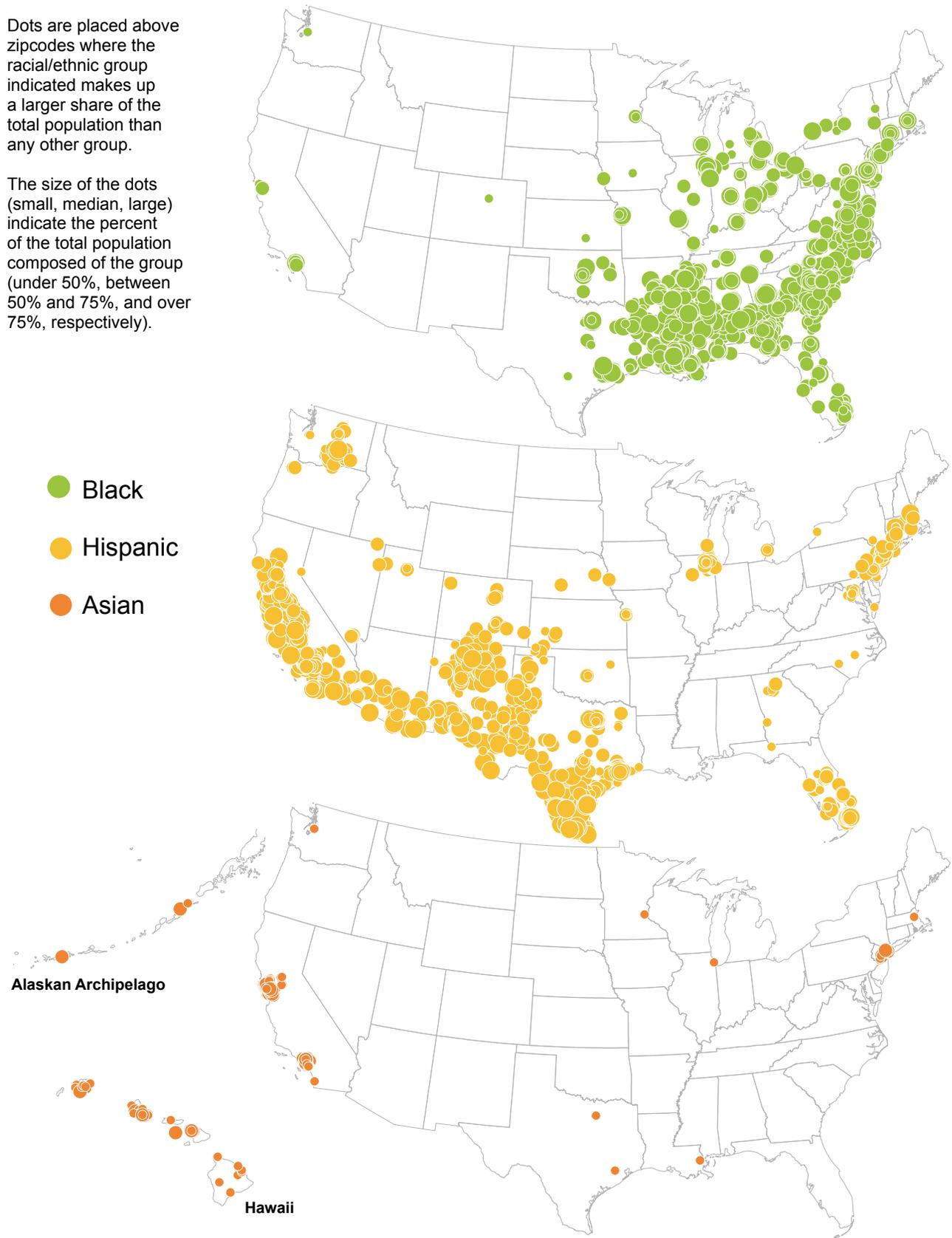


^[3] Historical appreciation is estimated using data from the Federal Housing Finance Agency (FHFA) House Price Index.

Figure 5: Zipcodes by racial or ethnic pluralities

Dots are placed above zipcodes where the racial/ethnic group indicated makes up a larger share of the total population than any other group.

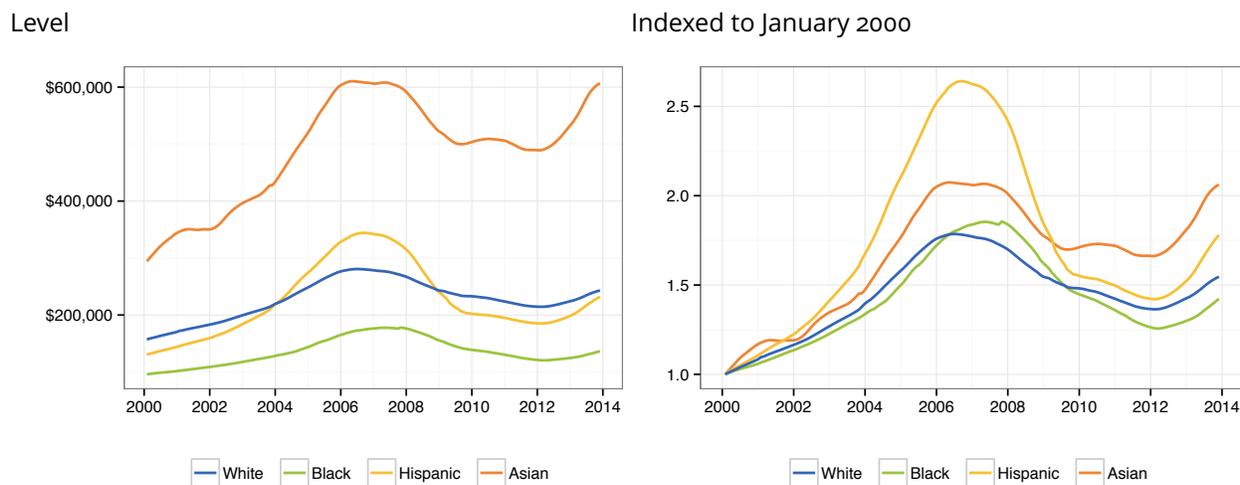
The size of the dots (small, median, large) indicate the percent of the total population composed of the group (under 50%, between 50% and 75%, and over 75%, respectively).



Minority groups suffered a one-two punch over the course of the housing bubble and bust. Not only were they predominately located in many of the hardest hit metros (See Figure 5), low-income and minority groups were also often the target of predatory lending for subprime mortgages^[4]. A report by the U.S. Department of Housing and Urban Development (HUD) found that in the years leading up to the bubble, subprime loans were three times more likely to be written for applicants in low-income neighborhoods than high-income, and five times more likely in black neighborhoods than white^[5]. By late 2009, delinquency rates among subprime loans topped 30 percent, but remained below 10 percent among FHA and prime loans^[6]

An ideal measure to capture the differential experiences of white, black, Hispanic, and Asian homeowners in the U.S. housing market over the course of the bubble and bust would be to track the value of homes owned by members of each group. Because this option is unavailable, we instead used median home values within ZIP codes where the given group composes a larger share of the total population than any other group to estimate the time path of home values within racial or ethnic communities. The national median home value associated with a given group in a given month is then the weighted average of these ZIP code medians, where the weights used are the ZIP codes' group member counts. (See the methodology section on page 23 for a discussion of our methodology, the different specifications explored, and our arguments for this particular choice.) This way, when analyzing the time path of home values for black Americans, only ZIP codes with a strong black presence are considered and the largest weight is given to the ZIP code with the greatest black population.

Figure 6: Home values within racial or ethnic communities



Notes: These national race based time series were formed from the Zillow Home Value Index at the zipcode level. We categorize the zipcodes by race according to the racial or ethnic group with the largest share of the population. For each month, we then estimate the weighted average home value within these ZIP code subsets, where each ZIP code is weighted by number of group members within its boundaries.

Figure 6 presents these different time paths. The graph to the left gives the median home value over time within different racial/ethnic communities. The graph on the right provides home values relative to their level in January 2000. It is this indexed graph that is most useful when analyzing the impact of the housing

^[4] Gerardi and Willen (2009) review the academic literature looking at trends in minority home ownership and the role of subprime mortgages. Gerardi, K. & Willen, P. (2009). Subprime Mortgages, Foreclosures. and Urban Neighborhoods. *The B.E. Journal of Economic Analysis & Policy*, 9(3).

^[5] US Department of Housing and Development. (2000). *Unequal Burden: Income and Racial Disparities in SubPrime Lending in America*. Washington, DC: Department of Housing and Urban Development.

^[6] Apgar, W. C. (2012). *Getting on the Right Track: Improving Low-Income and Minority Access to Mortgage Credit after the Housing Bust*. Working paper. Cambridge, MA: Joint Center for Housing Studies, Harvard University.

recession. For instance, home values in Hispanic communities, located predominantly in areas strongly affected by the bubble and its bust including California, Arizona, and Florida, were more than 2.5 times what they had been in January of 2000 by the time they peaked in mid-2006. Hit hardest among all the groups in this study, home values in Hispanic communities dropped 46.2 percent from the height of the bubble to the trough in January 2012. Black communities were the second-most affected group, losing 32.3 percent of their peak home values when the bubble burst. Comparatively, a drop of 23.6 percent and 19.9 percent was observed within white and Asian communities, respectively.

While home values in Hispanic communities were harder hit, they've also been faster to recover. From trough values in early 2012 to November 2013, home values in black communities increased by 13.2 percent, but are still 23.3 percent below their peak levels. In Hispanic communities, the growth since bottoming has been greater, at 25.3 percent, but with further to go, home values in these communities are still down 32.6% from peak. White communities have been appreciating at about the same pace as black communities, despite not having fallen as far, and are currently only 13.4 percent below their peak home value levels. In communities where Asians make up the largest share of the population, it is as if the bubble had never burst - home values are currently only 0.6 percent off their peak levels.

The forecasted growth in home values follows a similar pattern as the recent growth for each group. Home values in Hispanic communities are forecasted to grow by 16.8 percent, Asian communities by 15.6 percent, black communities by 8.5 percent, and white communities by 8.3 percent. With the more moderate growth expected for black communities and the longer way to go before returning to peak levels, black communities may end up to be the hardest hit from the housing recession.

Table 7: Zillow housing market metrics for racial/ethnic communities

	White	Black	Hispanic	Asian
Peak to trough	-23.6%	-32.3%	-46.2%	-19.9%
Trough to current	13.4%	13.2%	25.3%	24.1%
Current down from peak	-13.4%	-23.3%	-32.6%	-0.6%
ZHVI (\$k)	243.1	136.4	231.9	606.8
1-year forecast	8.3%	8.5%	16.8%	15.6%

Notes: These numbers accompany Figure 6.

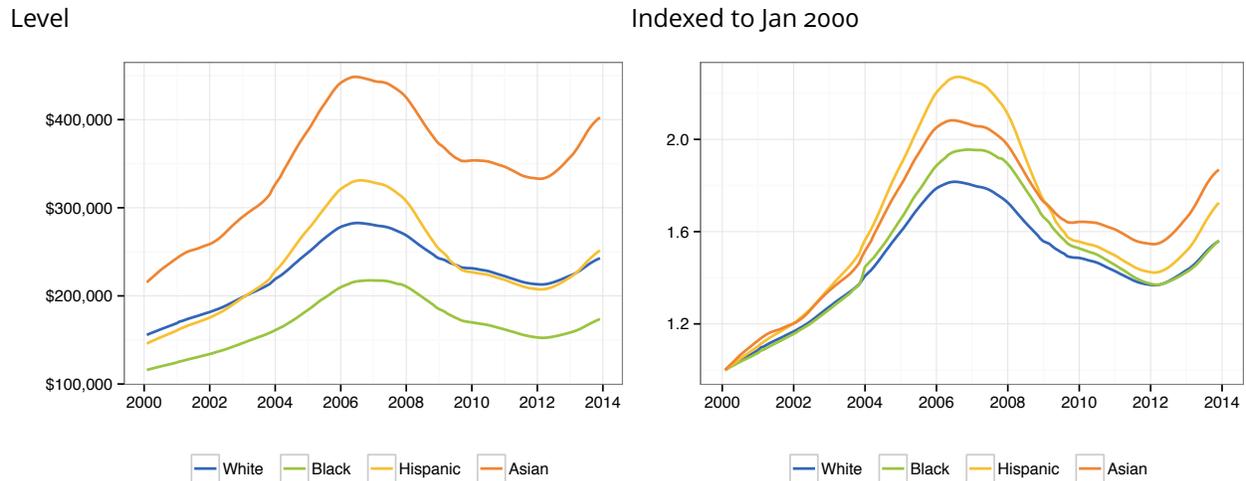
The Housing Recession by Race: Methodology

Our primary goal is to model the experiences of white, black, Asian, and Hispanic homeowners through the housing bubble, bust and recovery thus far. Because homeowners' race and ethnicity information is generally unavailable in public record data from which home value indices are created, we must turn to aggregated measures to model the path of home values within communities defined by a given race. In order to be as accurate as possible, we use the Zillow Home Value Index (ZHVI) at the ZIP code level, the smallest geographical unit available with maximal home value coverage across the United States.

Using population data from the 2011 five-year American Community Survey (ACS), a natural first pass for this analysis is to create a simple race-weighted national ZHVI time series. Here, the national median home value associated with a given racial or ethnic group is a weighted average of the ZIP codes' median home values, where the weights applied are the ZIP code population counts of the targeted group. Figure 7 presents the home value paths for different minority groups according to this first approach, a race-weighted ZHVI using all U.S. ZIP codes. In this figure, Hispanic home values are down 24 percent from their peak levels, black home values are down 20.2 percent, white home values are down 14.1 percent and Asian values are down 10.3 percent. Relative to the results presented in the main body of the report, these values are all

attenuated towards each other; the experiences of the different groups are more similar to each other than when broken out by racial or ethnic communities.

Figure 7: Simple race weighted home values (not narrowed to racial/ethnic communities)



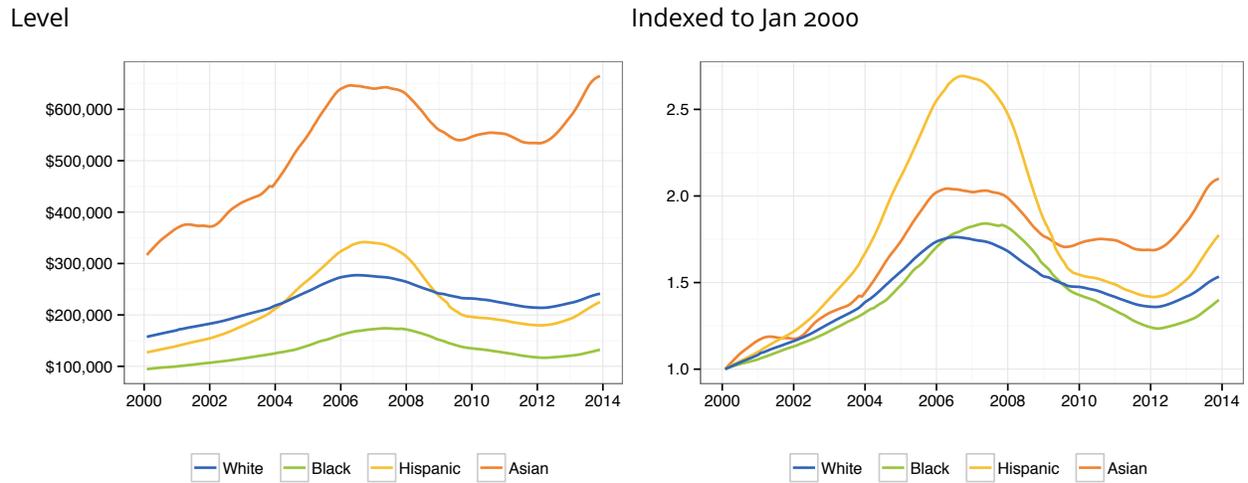
Notes: These national race based time series were formed from the Zillow Home Value Index at the zipcode level. For each month, we estimate the weighted average home value using all ZIP codes, where each ZIP code is weighted by number of group members within its boundaries.

Note that for this first approach, the ZIP code with the greatest number of blacks, for example, is weighted the most heavily, regardless if blacks constitute only a very small minority of the total population within the ZIP code. This could present a problem if certain groups are systematically (dis)advantaged within certain ZIP codes. In such cases, the median home value of the ZIP codes could reflect the median home value of the majority group, and not the median home values of, say, local black homeowners. Our strategy to better target the different experiences of racial or ethnic groups is to limit the set of ZIP codes to those where the median home value is more likely to reflect the median home value of homes owned by the targeted group.

Our first iteration of this approach is to include only those ZIP codes where the racial or ethnic group is of the majority. The weights used to aggregate the ZIP codes to a national level remain population counts of the targeted group within each ZIP code. Under an assumption of racial or ethnic clustering, this methodology is desirable. Limiting the set of ZIP codes in this way emphasizes the differing home value paths of the communities of each of the racial or ethnic groups. Note, however, that not all members of the selected racial or ethnic group in the U.S. are accounted for. Specifically, 88.5 percent of whites live in ZIP codes where they are of the majority, whereas this share is only 42.9, 34.5, and 7.8 percent for Hispanic, black, and Asian populations, respectively. Figure 8 explores the results using this approach and indicates home values in Hispanic communities are currently down 34.1 percent from their peak values. In black and white communities, home values are down 24 percent and 13 percent, respectively, from peak. In Asian communities, defined by ZIP codes with a majority Asian population, home values are 2.8 percent above peak.

Our second iteration of this racial clustering approach is to include only those ZIP codes where the racial or ethnic group is of the plurality versus majority, (i.e., they compose the greatest share of the total population of all other racial/ethnic groups). The weights applied in the weighted average are still the ZIP codes' population counts of the targeted group. Relative to the majority approach in the first iteration above, this approach improves the coverage of the U.S. population while producing similar overall results for each group. Specifically, whites living in ZIP codes where they are the plurality compose 93 percent of the total U.S. white population and 40.6, 51.4, and 16.2 percent for the black, Hispanic, and Asian populations, respectively. Given the similarity of the majority and plurality approaches but the better population coverage of the latter, the results from the plurality approach are presented in the body of the paper above.

Figure 8: Home values within racial or ethnic communities defined by a majority



Notes: These national race based time series were formed from the Zillow Home Value Index at the zipcode level. We categorize the zipcodes by race according to the racial or ethnic group with a majority share of the population. For each month, we then estimate the weighted average home value within these ZIP code subsets, where each ZIP code is weighted by number of group members within its boundaries.

Appendix

APPENDIX

Data

Data covering the entire population was drawn from the 2011 five-year American Community Survey (ACS) at the ZIP code level. This includes population counts, median income, and ownership rates by race and ethnicity. Ownership rates by race and ethnicity were also pulled from the 2000 decennial census to estimate changes over time in this important metric.

With the exception of survey results (see footnote on page 18), all information covering mortgage applications and applicants is drawn from Home Mortgage Disclosure Act (HMDA) data. In our analysis, we exclude loan applications to the Farm Service Agency or Rural Housing Service; loans requested for the purpose of home improvement or for a second lien on the property; and loans for the purchase or refinancing of manufactured housing units. We only retain those records where the loan applicant will be occupying the property, in order to avoid purchases made exclusively for the purposes of investment. We also exclude those loan records corresponding to approved pre-approval requests that were subsequently not accepted. That category is subject to optional reporting and so is not a national sample.

Throughout the analysis, both when analyzing census or HMDA data, when race is specified, mixed-race individuals and mixed-race couples are excluded, though they are included in any "All" category. In the case of a co-signer on the loan application, application records are excluded if the co-signer has a different race or ethnicity than the primary applicant.

Tables

Table 1: Racial composition by various populations

Percent of	White	Black	Asian	Hispanic
... total population	63%	12.1%	4.6%	17.3%
... all mortgage applications	68.2%	4.2%	5.2%	6.1%
..... for home purchase	64.8%	6%	5.3%	9.4%
..... that are successful	68.6%	4.9%	5.1%	8.4%
..... for refinancing	69.5%	3.5%	5.2%	4.9%
..... that are successful	73.2%	2.5%	5.5%	4.1%
... conventional loan applications	70.3%	2.9%	5.9%	4.8%
..... for home purchase	69.8%	2.9%	7.1%	5.4%
..... that are successful	73.4%	2%	7%	4.5%
..... for refinancing	70.4%	2.9%	5.6%	4.6%
..... that are successful	73.5%	2.2%	5.8%	3.9%
... FHA loan applications	59%	9%	2.8%	13.1%
..... for home purchase	56.8%	10.1%	3.2%	16.5%
..... that are successful	60.6%	8.7%	3%	15.6%
..... for refinancing	62.7%	7.2%	2.3%	7.3%
..... that are successful	70.2%	5.6%	2.3%	7.2%
... VA loan applicants	62.8%	10.7%	1.3%	6.1%

*Notes:*Data for the total population is drawn from the 2011 5-year American Community Survey (ACS). Data on mortgage applications is drawn from 2012 HMDA records. Successful applications for this table are considered those that resulted in the loan being originated. See the Data section in the Appendix for a discussion of HMDA records and filters used.

Table 2: The pattern of applications through the housing recovery

(a) Applications for primary mortgages to secure home purchase

	All	White	Black	Asian	Hispanic
Number of applications in 2012	2,805,206	1,817,691	169,261	147,564	263,479
Change between 2011 and 2012	13.3%	15.9%	6.4%	14.8%	4.3%
Change between 2010 and 2011	-7.2%	-5.6%	-12.4%	-13.4%	-7.3%

Subset: Conventional loan applications

	All	White	Black	Asian	Hispanic
Number of applications in 2012	1,597,309	1,114,912	46,892	113,985	86,865
Change between 2011 and 2012	23.4%	25.2%	19.5%	20.3%	15.4%
Change between 2010 and 2011	-0.8%	0.7%	3.3%	-12.9%	4.7%

Subset: FHA loan applications

	All	White	Black	Asian	Hispanic
Number of applications in 2012	962,041	546,426	97,132	30,324	158,851
Change between 2011 and 2012	-0.9%	0%	0.3%	-2.9%	-1.7%
Change between 2010 and 2011	-17.2%	-17.3%	-20.5%	-16.9%	-13.4%

Subset: VA loan applications

	All	White	Black	Asian	Hispanic
Number of applications in 2012	245,856	156,353	25,237	3,255	17,763
Change between 2011 and 2012	16.9%	19%	10%	26%	12%
Change between 2010 and 2011	10%	13%	5.2%	21.3%	12.7%

(b) Applications to refinance a primary mortgage

	All	White	Black	Asian	Hispanic
Number of applications in 2012	7,050,580	4,900,815	245,155	368,327	342,435
Change between 2011 and 2012	41.7%	42.2%	34%	50.9%	50%
Change between 2010 and 2011	-16.5%	-17%	-13.9%	-11.8%	-8.6%

Subset: Conventional loan applications

	All	White	Black	Asian	Hispanic
Number of applications in 2012	6,281,280	4,420,285	180,987	353,081	291,793
Change between 2011 and 2012	46.7%	46.6%	46.6%	51.7%	57.8%
Change between 2010 and 2011	-15.1%	-15.7%	-6.6%	-11.2%	-3.2%

Subset: Conventional loan applications

	All	White	Black	Asian	Hispanic
Number of applications in 2012	557,619	349,733	40,235	12,647	40,565
Change between 2011 and 2012	1.1%	1.8%	-4.2%	25.5%	11%
Change between 2010 and 2011	-32.2%	-33.8%	-37.1%	-27.5%	-31.7%

Subset: VA loan applications

	All	White	Black	Asian	Hispanic
Number of applications in 2012	211,681	130,797	23,933	2,599	10,077
Change between 2011 and 2012	48%	52.2%	36.1%	99.9%	49.2%
Change between 2010 and 2011	40.1%	45.6%	30.2%	54.4%	31.1%

Notes: Mortgage application counts are drawn from 2010, 2011, and 2012 HMDA records.

Table 3: Breakdown of applications by racial/ethnic group and loan purpose

	Primary mortgage applications for home purchase			Applications to refinance the primary mortgage		
	White	Black	Hispanic	White	Black	Hispanic
Percent of application subgroup by loan type						
Conventional loan	61.3%	27.7%	77.2%	33%	90.2%	73.8%
FHA loan	30.1%	57.4%	20.6%	60.3%	7.1%	16.4%
VA loan	8.6%	14.9%	2.2%	6.7%	2.7%	9.8%
Percent of application subgroup by action						
Funds successfully received (originated)	72.6%	55.2%	66.9%	61.5%	67.4%	46.6%
Applicant declined funds after approval	3.7%	3.3%	5.1%	4%	4.2%	5.1%
Funds denied by financial institution	10%	19.3%	12.7%	16.7%	15.1%	29.5%
Application was withdrawn or left unfinished	10.4%	12.9%	12.2%	12.6%	13.3%	18.7%
Loan approval rate						
... for a conventional loan	86%	57.8%	83.8%	71.1%	83.7%	66.5%
... for an FHA loan	83.7%	71.4%	76.7%	77.3%	71.1%	54.4%
... for an VA loan	82.5%	68.7%	71.7%	73.9%	70.2%	54.1%
Origination rate						
... for a conventional loan	73%	47.3%	68.1%	57.5%	69.5%	51.1%
... for an FHA loan	71.6%	57.9%	62.9%	63.5%	47.6%	33.2%
... for an VA loan	72.8%	59.5%	62.5%	64.1%	47.2%	35.6%
Denial rate						
... for a conventional loan	10.6%	25.4%	13.2%	21%	16.3%	33.5%
... for an FHA loan	12.7%	22.2%	19.5%	18.7%	28.9%	45.6%
... for an VA loan	10.7%	16.6%	11.3%	13.3%	29.8%	45.9%

Notes: Data on mortgage applications is drawn from 2012 HMDA records. Successful applications for this table are considered those that resulted in the loan being originated. See the Data section in the Appendix for a discussion of HMDA records and filters used.

Table 4: Median Income by Category

	All	White	Black	Asian	Hispanic
Median Income (\$1000)	56	62	39	77	43
... of all mortgage applicants	62	66	55	69	50
... of successful applicants	82	84	63	104	58
... of denied applicants	65	67	55	80	50
... of conventional loan applicants	84	85	65	102	61
... of FHA loan applicants	56	60	50	66	47
... of VA loan applicants	71	71	72	78	66
... of purchase applicants	67	70	53	85	49
..... for a conventional loan	80	81	59	94	57
..... for a FHA loan	53	56	48	60	45
..... for a VA loan	65	66	64	69	62
... of successful purchase applicants	70	73	56	88	51
..... for a conventional loan	84	84	68	96	62
..... for a FHA loan	55	57	50	62	46
..... for a VA loan	68	68	67	71	64
... of denied purchase applicants	54	57	48	68	44
..... for a conventional loan	60	62	48	75	48
..... for a FHA loan	48	51	45	55	42
..... for a VA loan	58	57	59	63	57
... of refinance applicants	83	84	66	104	62
..... for a conventional loan	85	86	67	105	63
..... for a FHA loan	64	65	56	83	54
..... for a VA loan	79	78	83	91	77
... of successful refinance applicants	88	88	70	110	65
..... for a conventional loan	89	90	71	110	66
..... for a FHA loan	68	69	61	88	56
..... for a VA loan	77	77	75	91	72
... of denied refinance applicants	68	70	60	84	55
..... for a conventional loan	70	72	59	85	55
..... for a FHA loan	55	57	50	71	49
..... for a VA loan	74	71	85	86	74

Notes: The median income in the first row, the national median, is pulled from the 2011 ACS 5-year survey at the ZIP code level. The ZIP code median incomes are accumulated to form a national median via averages weighted by the population counts of the given groups. Data on mortgage applications is drawn from 2012 HMDA records. Applicants are assigned to home value tiers via their ZIP code. Home value tier cutoffs were set by dividing all estimated home values within a metro area into three ordered groups. ZIP codes were then assigned to tiers according to the relative position of the ZIP code median to the metro home value tier cutoffs. Successful applications for this table are considered those that resulted in the loan being originated. See the Data section in the Appendix for a discussion of HMDA records and filters used. The median income of applicants assumes a one-to-one application-to-applicant ratio.

Table 5: Loan-value-to-annual-income ratio by sub-population

$\frac{Debt}{AnnualIncome}$	All	White	Black	Asian	Hispanic
... of all applicants	2.27	2.19	2.46	2.75	2.78
... of successful applicants	2.21	2.14	2.46	2.68	2.76
... of denied applicants	2.46	2.38	2.45	3.10	2.85
... of conventional loan applicants	2.16	2.09	2.20	2.70	2.52
... of FHA loan applicants	2.71	2.58	2.78	3.27	3.19
... of VA loan applicants	2.70	2.67	2.67	3.32	2.89
... of purchase applicants	2.57	2.46	2.77	3.04	3.03
..... for a conventional loan	2.35	2.29	2.33	2.92	2.54
..... for a FHA loan	2.81	2.66	2.88	3.40	3.26
..... for a VA loan	2.91	2.87	3.00	3.64	3.09
... of successful purchase applicants	2.55	2.45	2.76	3.00	3.02
..... for a conventional loan	2.34	2.29	2.33	2.90	2.55
..... for a FHA loan	2.79	2.65	2.86	3.34	3.22
..... for a VA loan	2.89	2.86	2.97	3.55	3.04
... of denied purchase applicants	2.70	2.52	2.82	3.33	3.12
..... for a conventional loan	2.41	2.33	2.27	3.17	2.55
..... for a FHA loan	2.97	2.73	3.01	3.69	3.40
..... for a VA loan	3.00	2.92	3.13	3.79	3.21
... of refinance applicants	2.14	2.08	2.23	2.64	2.56
..... for a conventional loan	2.10	2.04	2.16	2.63	2.51
..... for a FHA loan	2.50	2.44	2.52	2.96	2.88
..... for a VA loan	2.39	2.40	2.24	2.94	2.48
... of successful refinance applicants	2.06	2.00	2.17	2.56	2.50
..... for a conventional loan	2.03	1.97	2.10	2.55	2.45
..... for a FHA loan	2.44	2.39	2.49	2.85	2.83
..... for a VA loan	2.41	2.40	2.36	2.93	2.56
... of denied refinance applicants	2.40	2.33	2.28	3.02	2.69
..... for a conventional loan	2.36	2.30	2.23	3.01	2.66
..... for a FHA loan	2.62	2.55	2.58	3.18	2.96
..... for a VA loan	2.43	2.49	2.16	2.95	2.47

Notes: Data on mortgage applications is drawn from 2012 HMDA records. Applicants are assigned to home value tiers via their ZIP code. Home value tier cutoffs were set by dividing all estimated home values within a metro area into three ordered groups. ZIP codes were then assigned to tiers according to the relative position of the ZIP code median to the metro home value tier cutoffs. Successful applications for this table are considered those that resulted in the loan being originated. See the Data section in the Appendix for a discussion of HMDA records and filters used. The median income of applicants assumes a one-to-one application-to-applicant ratio.

Table 6: Zillow Housing Metrics By Racial/Ethnic Group**The Fall: Peak home values to trough values**

Peak to Trough	All	White	Black	Asian	Hispanic
... race weighted	22.8%	-24.7%	-30.0%	-25.8%	-37.4%
... in zips where given race is the plurality		-23.6%	-32.3%	-19.9%	-46.2%
... in zips where given race is the majority		-22.9%	-32.9%	-17.4%	-47.4%

The Recovery: Trough value to current (November 2013)

Trough to Current	All	White	Black	Asian	Hispanic
... race weighted	11.3%	14.0%	14.0%	20.9%	21.3%
... in zips where given race is the plurality		13.4%	13.2%	24.1%	25.3%
... in zips where given race is the majority		12.9%	13.4%	24.5%	25.3%

Current State: Zillow Home Value Index (\$k), Nov 2013

Zillow Home Value Index (ZHVI; \$1,000s)	All	White	Black	Asian	Hispanic
... race weighted	168.9	242.8	173.7	402.5	251.5
... in zips where given race is the plurality		243.1	136.4	606.8	231.9
... in zips where given race is the majority		241.3	132.3	664.7	225.1

Current State: Percent of current value down from peak

Current Fall from Peak	All	White	Black	Asian	Hispanic
... race weighted	-14.0%	-14.1%	-20.2%	-10.3%	-24.0%
... in zips where given race is the plurality		-13.4%	-23.3%	-0.6%	-32.6%
... in zips where given race is the majority		-13.0%	-24.0%	2.8%	-34.1%

The Future: Zillow 1-year forecast

One-year Forecast	All	White	Black	Asian	Hispanic
... race weighted	4.6%	8.8%	9.3%	13.3%	14.2%
... in zips where given race is the plurality		8.3%	8.5%	15.6%	16.8%

Notes: See the Methodology subsection in Section 3 for a discussion of the use of the Zillow Home Value Index to estimate these metrics. Home value tier cutoffs were set by dividing all estimated home values within a metro area into three ordered groups. ZIP codes were then assigned to tiers according to the relative position of the ZIP code median to the metro home value tier cutoffs.

