WEALTH ROLLER COASTER: RACE, PLACE, AND THE FORECLOSURE CRISIS IN LOS ANGELES

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INTRODUCTION

In the second half of the last decade, the racial wealth gap widened substantially. While the median value of assets among whites declined by 16 percent between 2005 and 2009, the decrease for minorities was significantly higher at 54 percent for Asians, 66 percent for Latinos, and 53 percent for African Americans.[1] In 2005, median Asian household wealth had actually been greater than the median for white households, but by 2009 Asians lost their position at the top of the wealth ranking.[2] Latino households experienced dramatic wealth declines, from about $18,300 to $6,300, a 66 percent drop, while African Americans experienced a net decline of 53 percent, declining from $12,100 to $5,700.

The collapse of the housing market accounts for a significant share of the decline in wealth. By the year 2000 a housing boom was on its way with the highest rates of homeownership recorded in decades, increasing home values and a significant number of home purchases (Firestine and Ong, 2009; Schulman, 2012; Stuart and Rosenthal, 2011). The housing boom reached its peak in 2005 when homeownership and home sales peaked (Shulman 2012; Stuart and Rosenthal, 2011). However, by 2007 the housing market started to decline with notably lower home prices and homeownership rates (Firestine and Ong, 2009; Stuart and Rosenthal, 2011). The severity of the housing market decline has continued through 2012 and led to an overall loss in wealth. According to the latest report on the housing economy published by the UCLA Ziman Center for Real Estate, there has been a six-year decline in home values since 2006 leading to nearly $7 trillion in wealth lost (Schulman 2012). While other assets were lost, they represent a small portion of the overall loss compared to that lost in home equity (Kochhar, Fry, and Taylor, 2011).

The housing crisis has disproportionately affected minorities because home equity accounted for a larger proportion of their wealth. Among homeowners, median home equity declined by about 18 percent for whites, 23 percent for African Americans, 32 percent for Asian Americans, and 51 percent

[1] The arrival of new Asian immigrants since 2004 contributed significantly to the estimated decline in the overall wealth of this racial group. Absent the immigrants who arrived during this period, the median wealth of Asian households is estimated to have dropped 31 percent from 2005 to 2009 (Kochhar et al., 2011).

[2] During the first part of this decade, Asian Americans made considerable progress in closing the wealth gap with non-Hispanic whites through the rapid appreciation of their home values. From 2000 to 2005, the average value of homes for Asian homeowners increased by 73 percent, compared to only 60 percent for non-Hispanic white homeowners, a difference of 13 percent. In the fifteen metropolitan areas with the largest absolute number of Asians, which make up about two-thirds of all Asians in the United States, mean values of owner-occupied housing units increased by 78 percent, while the rest of the nation experienced only a 54 percent increase. Only a quarter of non-Hispanic whites lived in these fifteen metropolitan areas, hence a smaller proportion was able to benefit from the higher rate of appreciation (Patraporn, Ong, and Houston, 2009).

for Hispanics (Kochhar et al., 2011). Overall, the decline in home equity for racial minorities is particularly detrimental because not only do they hold most of their wealth in their homes, but also they are disproportionately located in areas hit hardest by declines in home values and foreclosures.

The housing downturn that began in 2006 also had noticeable geographic patterns. From the end of 2005 to the end of 2009, median home prices (one-unit, noncondominium properties) decreased by more than 30 percent in five states: 49 percent in Nevada, 38 percent in Florida, 38 percent in Arizona, 37 percent in California, and 34 percent in Michigan. An estimated 40 percent to 60 percent of homeowners in California, Nevada, and Florida were underwater with their mortgages in 2009 (Schwartz, 2010). Asians and Latinos are geographically concentrated in places that were hit hard by the housing market meltdown. According to the Pew Research Center, more than two-fifths of the nation's Latino and Asian households resided in Arizona, California, Florida, Michigan, and Nevada, the five states with the steepest declines in home prices in 2005; whereas only about one-fifth of the nation's white or black households resided in those states. Thus, Hispanics and Asians were more exposed to the housing downturn than others.

Asian residents of Arizona, California, Florida, Michigan, and Nevada experienced far greater drops in their net worth than Asian residents elsewhere, 64 percent and 44 percent respectively. For Hispanics, those in the five states experienced an 88 percent decline compared with a 48 percent decline for the rest of the nation. African Americans experienced a decline of 76 percent in these states and 48 percent nationwide. Thus, it is clear that various racial groups may be impacted by the housing market collapse differently and uniquely.

While the impact of the housing market boom and bust has been widely documented and discussed, less is known about the impact of the housing market at the neighborhood level and more specifically for various racial groups. Furthermore, due to the centrality of the housing and foreclosure crisis in increasing the racial wealth gap, it is critical that we know in greater detail how the housing bubble and foreclosures have affected minorities and minority neighborhoods. A more refined analysis of what happened during this period would provide much-needed insights into the nature and magnitude of the impacts. This analysis will also help point us to possible interventions and solutions.

This report asks the following questions for four communities in Los Angeles County (Downey, Glendale, Inglewood, and the West San Gabriel Valley) during the time period between 1999 and 2010:

- Are there changes in homeownership rates from 2000 through 2012? If so, are there differences by race in terms of homeownership rates over the same period of time?
- Are there changes in the housing burden prior to the housing boom, during the boom, and after the boom? Are there differences in burden by race?
- Are there differences in the receipt of subprime loans among racial groups that originated mortgages between 2004 and 2006?
- Are there differences in propensity to default and foreclose by racial group among the cohort that purchased housing between 1999 and 2004 and 2005 and 2007?

- Are there differences in the experience of having underwater mortgages by race among the cohort that originated mortgages between 1999 and 2004 and 2005 and 2007?

To develop a better understanding of the nature and magnitude of the housing problems require assembling and merging large data sets from multiple data sources, building on and going beyond existing practices used by housing and foreclosure researchers. This study uses data from multiple sources and years to show a unique and complicated picture of homeownership and foreclosure within the dominant groups in each community. We use data from the Census, DataQuick, and the Federal Reserve Board to examine neighborhood demographic and economic characteristics, the likelihood of being a homeowner and foreclosing, and purchase price paid.

We focus on the overall period from 1999 to 2012 based on data available for the data sets previously mentioned. The analyses will use data from Home Mortgage Disclosure Act (HMDA), DataQuick, Decennial Census, and American Community Survey (ACS). We start by calculating descriptive statistics of these conditions among racial groups in each community and assess changes between them. Next, we use multiple regression modeling to determine what individual and neighborhood factors influence and differentiate propensity to be a homeowner and likelihood for foreclosure among the racial/ethnic groups.

While this study uses a case study approach focusing only on the major dominant racial group in each neighborhood, we hope to develop a method and model to examine various racial groups within and outside of other neighborhoods in California. Thus, while the report focuses on this region within Los Angeles County, the implications of the findings inform our understanding of racial/ethnic asset building overall and the possible policy and program implications.

Findings from this report will also inform state and regional asset-building coalitions that are part of the Ford Foundation's Building Economic Security over a Lifetime Initiative. They will primarily benefit the California coalition led by the Earned Assets Resource Network, but the methodology can be replicated in other states and neighborhoods in future research. Understanding the magnitude of the housing crisis and its impact will help asset-building coalition members better develop and implement program, policy, and capacity-building work in the Los Angeles region and perhaps in statewide efforts.

The remainder of this report has four major parts. For the first part, we briefly discuss the research methodology and data. We then provide a detailed description of the four case study areas in Los Angeles County including Downey, Glendale, Inglewood, and the West San Gabriel Valley (consisting of Monterey Park and Rosemead). The findings are then organized by case study area with the same analysis replicated for each case study area. Each case study area section in the report includes descriptive data analysis as well as results from models for predicting homeownership, purchase price, and foreclosure. In addition to the overall conclusion of this report, which provides some overall comments and comparisons across the four neighborhoods, each case study area also includes its own summary for what we have observed about the home-buying and homeowning process.

HOMEOWNERSHIP AND FORECLOSURES IN LOS ANGELES COUNTY

Los Angeles County is one of the largest and most diverse areas in the country and the state of California. It spans more than four thousand square miles and is composed of eighty-eight cities and hundreds of neighborhoods. In terms of race, Latinos made up the majority of the population at 52 percent in 2011. In comparison, whites represented 28 percent of the population, Asians were approximately 14 percent of the population, and blacks were about 8 percent of the population. The foreign-born rate was 36 percent of the population. Twenty-nine percent of the population holds a bachelor's degree or higher. The unemployment rate was 12.2 percent in 2011 and 18.3 percent of the population was below poverty. Median household income was $54,630, while per capita income for the county in 2011 was $26,349. The homeownership rate was 47 percent.

Homeownership remained close to that in 2000, but differences by race can be seen in terms of homeownership overtime. The 2000 Census estimated that nearly half (48 percent) of households owned their homes in Los Angeles County (see Table 1). Across racial/ethnic groups, non-Hispanic whites had the highest homeownership rate at 58 percent. A little more than 51 percent of Asian American households in Los Angeles County owned their home, compared to 37.7 percent of Latino households. African American households had the lowest rates in 2000 with only 36.7 percent owning their homes at the time.

Over the next few years, Angelenos, like much of the country, enjoyed a confluence of factors such as low interest rates and permissive lending practices that allowed more households to obtain the dream of owning a home. Nominal income was rising, and families unable to purchase homes previously were qualifying for home loans after 2000. At the height of the housing boom (2005–7), homeownership rates in Los Angeles County increased for all racial groups although Table 1 illustrates that increases were unevenly distributed across racial/ethnic groups. Latino households experienced the greatest increase during this period; homeownership increased three percentage points from 2000 to 2005–7. Non-Hispanic white, African American, and Asian households experienced more moderate increases (approximately one percentage point) over the years.

Table 1 Homeownership Rates in Los Angeles County in 2000, 2005–7, and 2009–11 by Race/Ethnicity

Homeownership	Total Population	Non-Hispanic White	Latino or Hispanic	Black/African American	Asian
2000	47.9%	58.3%	37.7%	36.7%	51.0%
2005–7	49.3%	59.1%	40.8%	37.9%	52.1%
2009–11	47.1%	56.7%	39.1%	35.2%	51.4%
Change from 2000 to 2005–7	1.4% pts	0.8% pts	3.1% pts	1.2% pts	1.1% pts
Change from 2005–7 to 2009–11	-2.2% pts	-2.4% pts	-1.7% pts	-2.7% pts	-0.7% pts
Change from 2000 to 2009–11	-0.8% pts	-1.6% pts	1.4% pts	-1.5% pts	0.4% pts

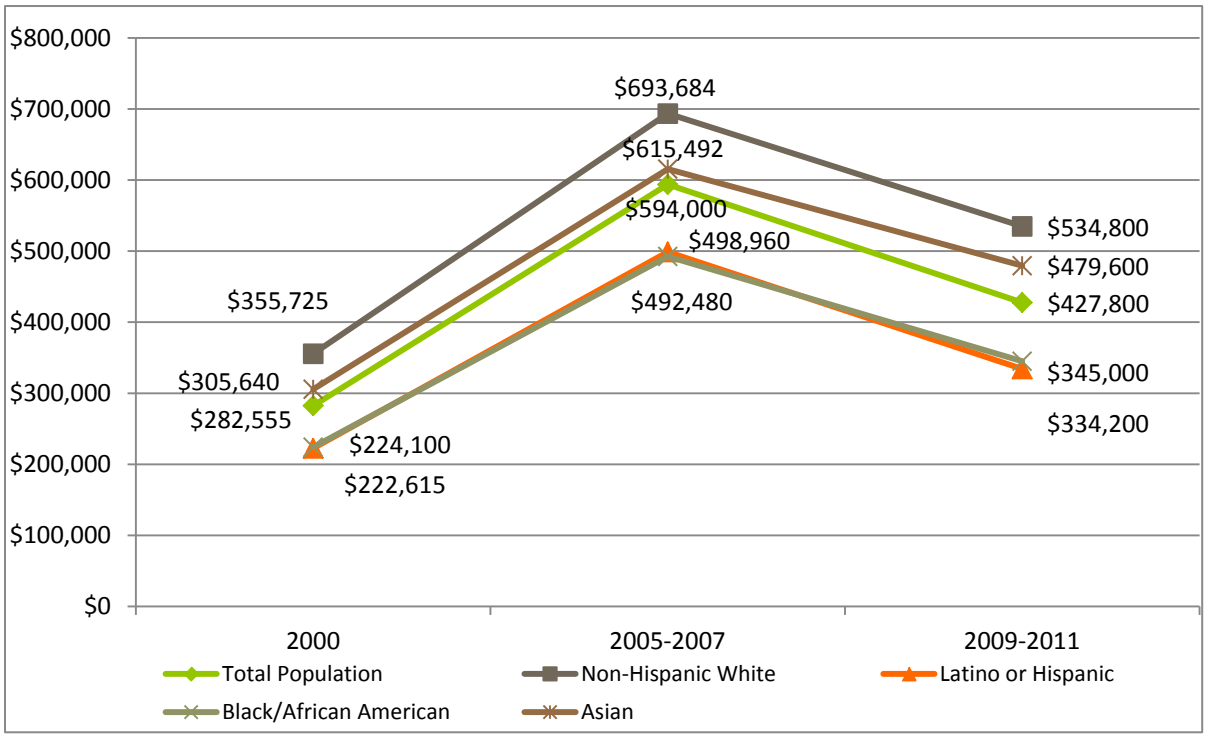
Sources: Decennial Census 2000, ACS 2005–2007, and ACS 2009–2011.

Despite this moderate increase in homeownership rates, following the financial crisis most gains in homeownership in Los Angeles County were lost. The overall homeownership rate in the county for 2009–11 fell back to year 2000 levels. Homeownership rates among non-Hispanic white and African American households fell more than two percentage points to below 2000 levels. Homeownership within Latino households also decreased during this period (-1.7 percentage points). Over the decade, homeownership within Asian American households fluctuated minimally compared to other racial/ethnic groups.

Home Values

Home values or prices in Los Angeles County top most cities in the country. In 2000, the median value of a home was approximately $280,000 (see Figure 1). When examined by race/ethnicity, non-Hispanic white homeowners had the highest median value at $350,000, followed by Asian American owners at $300,000. Homes owned by Latino and African American householders were lowest with a median value of $220,000. At the apex of the housing bubble, real home values in Los Angeles County doubled to a median of $590,000. Across racial/ethnic groups, home values also doubled but increased faster for homes owned by Latinos and African Americans. Median home values for these groups increased 124 percent and 120 percent from 2000 to 2005–7. During this period, gaps in median home values between non-Hispanic whites and other racial/ethnic groups also widened. So while home values increased overall in Los Angeles County, racial gaps also expanded.

Figure 1 Median Home Values in Los Angeles County in 2000, 2005–7, and 2009–11 by Race/Ethnicity (2011 dollars)



Sources: Decennial Census 2000, ACS 2005–2007, and ACS 2009–2011.

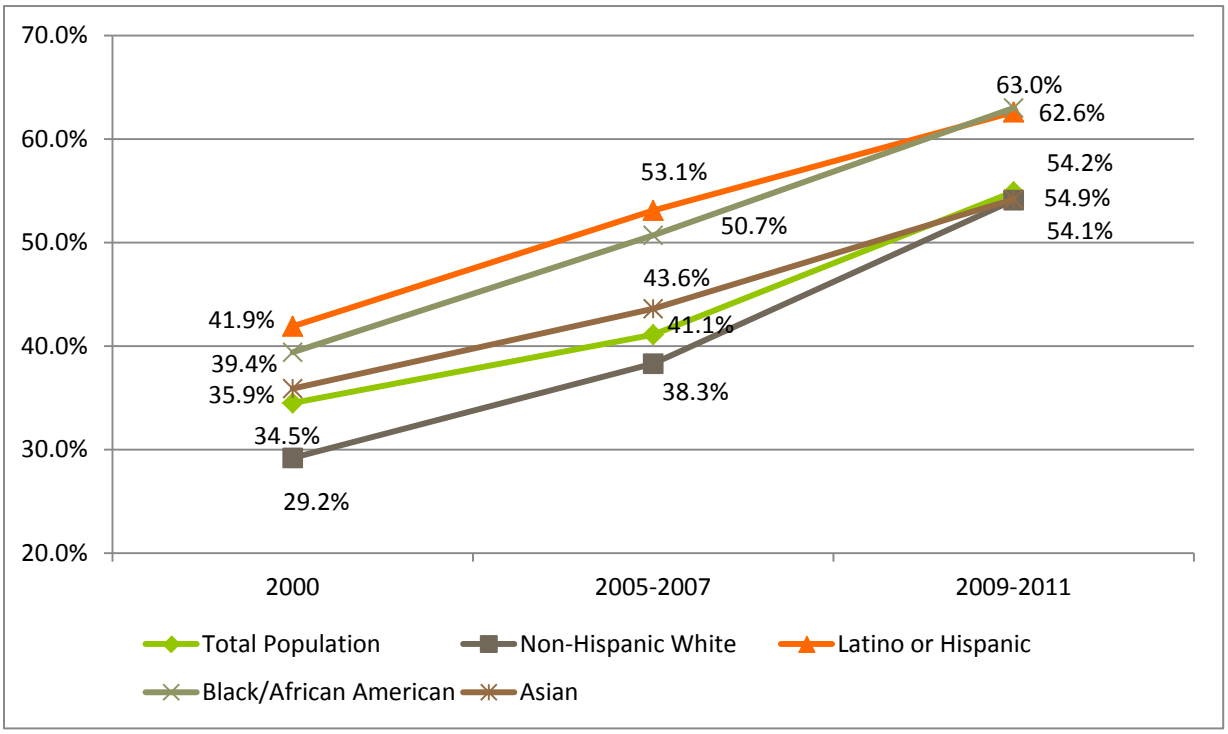
By 2011, the foreclosure crisis had begun to slow, and median home values declined at least 20 percent. Median home values for Latino owners decreased most precipitously (-33 percent), followed by home values for African Americans (-30 percent).

Housing Burden

The housing boom not only increased homeownership in Los Angeles County but was also characterized by a dramatic rise in housing costs or burden. Approximately one-third (35 percent) of homeowners in 2000 paid more than 30 percent of their household income toward housing costs. According to the U.S. Department of Housing and Urban Development (2013), these owners are considered cost burdened and may have difficulty meeting other needs.[3] Latino (42 percent) and African American (39 percent) owners were more burdened compared to the general population (see Figure 2).

[3] See http://www.hud.gov/offices/cpd/affordablehousing/.

Figure 2 Percentage of Owners Who Paid More Than 30 Percent of Their Household Income toward Housing Costs in Los Angeles County in 2000, 2005–7, and 2009–11 by Race/Ethnicity



Sources: Decennial Census 2000, ACS 2005–2007, and ACS 2009–2011.

By 2005–7, the proportion of burdened owners in Los Angeles County rose steeply for all racial ethnic groups. Non-Hispanic white owners had the lowest rate of housing cost burden at 38 percent, while the majority of Latino and African American owners were cost burdened. Forty-four percent of Asian homeowners were cost burdened at the time. Housing burden rates continued to climb through the foreclosure and financial crises. By 2009–11, the majority of homeowners in Los Angeles County paid more than 30 percent of their incomes toward housing costs. Two of three African American and Latino owners were cost burdened.

Foreclosures in Los Angeles County

As with other parts of the country, foreclosures in Los Angeles County jumped drastically in 2007 and reached its highest levels in 2008 with more than twenty-eight thousand single-family homes foreclosed. High foreclosures continued through 2011 before substantially declining in 2012. In the span of five years between 2007 and 2011, nearly one hundred thousand single-family homes were foreclosed in the county.

DATA AND METHODS

Case Study Selection and Study Areas

A case study approach was utilized for this study to explore the impact of the housing boom and bust on a neighborhood level as it relates to various racial groups within Los Angeles County. A case study approach also allows the analysis to be completed in a comprehensive way with limited resources. Study areas were chosen based on a combination of factors including racial diversity, homeownership, and other economic and demographic variables to indicate a sufficient sample of those who are homeowners as well as those who experienced foreclosures. We also tried to select study areas with roughly similar overall total population numbers and that already represented clearly defined municipalities.

This report uses Census 2000 Public Use Microdata Areas (PUMA) and census tracts to select four study areas representing a neighborhood for each one of the major racial groups in the county: Latinos in Downey, non-Hispanic whites in Glendale, blacks/African Americans in Inglewood, and Asian Americans in Rosemead and Monterey Park. The study areas as we have defined them are the equivalent of the PUMAs listed in Table 2 below.

Table 2 Case Study Areas

PUMA	Place
05900	City of Downey
04900	City of Glendale
05500	City of Inglewood
06112	City of Rosemead, City of Monterey Park

Source: 2000 Census PUMA.

When possible, we tried to select study areas to be consistent with the existing municipality boundaries. This was true except for Rosemead and Monterey Park, which not only include part of South San Gabriel, but also individually had smaller populations than the other major study areas and, thus, are reported together for purposes of this report.

PUMAs were used to select the study areas due to the use of complementary data from the Census ACS Public Use Microdata Sample (PUMS), which would provide individual-level data for the study areas. At the time of this study, the 2010 PUMAs had not yet been released and, thus, this study utilized 2000 PUMA boundaries to extract data and for case study selection.

Data Sources

This study relies upon various data sources and data sets that report information on race, and other key demographics such as education, age, and housing information including purchase price, sales, and burden (see Table 3). This is because for the most part each data source and data set includes all the variables necessary to paint this full picture. For instance, the data set about home sales includes variables such as type of home/home quality, purchase price, and loan amount, but does not have loan type and racial data. In comparison, the HMDA data set includes loan type and race in addition to loan amount.

Triangulating multiple data sources and data sets allows us to have a fuller comprehensive picture of the homeownership experience that would otherwise not be possible. In order to assemble a more complete picture of homeownership, housing burden, and foreclosure for each of the four study areas and the residents who purchased a home during the most recent housing boom, we used data from and, where possible, merged data from three primary sources: U.S. Census Bureau, DataQuick, and the Federal Financial Institutions Examination Council's (FFIEC's) HMDA. The following is an overview of all the various data sources and the specific data sets utilized and for what analysis. In addition, Table 3 provides a summary of the data sources, data sets, content in data sets, and years utilized.

The U.S. Census Bureau has some of the most comprehensive and up-to-date public information on demographics and housing. The Decennial Census and the Census ACS are rich national data sources with population and housing information provided by race/ethnicity. The ACS collects socioeconomic information through a long-form questionnaire and provides current data about all communities every year. It is sent to a small percentage of the population on a rotating basis throughout the decade. No household receives the survey more often than once every five years. For our analysis we use ACS data from two three-year data sets: 2005–7 and 2009–11. These years were chosen because they best represent the time of the housing boom and post-housing boom to see any significant changes over these two time periods. The ACS PUMS is not available prior to 2005.

In comparison to the ACS data sets, the Decennial Census reaches a significantly higher percentage of the population every ten years. We use the year 2000 data because it is far enough before the peak of the housing boom but enough after the last recession period to provide a foundational understanding of where individuals were in the county prior to the peak. The short-form questionnaire utilized by the Decennial Census has the goal of counting all residents living in the United States as well as asking for basic information such as sex, age, race, and housing tenure.

The third public source of data is currently managed by the FFIEC. HMDA was enacted by Congress in 1975 and was designed by the Federal Reserve Board. Regulations affiliated with HMDA require lending institutions to report public loan data. This public loan data can then be used to determine whether financial institutions are serving the housing needs of their communities, whether public officials distribute public-sector investments to areas where it is needed to attractive private investors, and in

identifying possible discriminatory lending patterns. For purposes of this report, we utilized the Loan Application Registers (LAR) from 1999 to 2007.

Table 3 Description of Data Sources and Sets

Data Source	Data Set	Major Variables and Concepts	Years
U.S. Census Bureau	PUMS	Household income, race, tenure, selected monthly costs, education	2005–7, 2009–11
U.S. Census Bureau	ACS	Household income, race, tenure, selected monthly costs, education	2005–7, 2009–11
U.S. Census Bureau	Decennial	Race, age, sex, education	2000
U.S. Census Bureau	Surname List	Race/ethnicity, surnames, race probability	2000
DataQuick	Home Sales	Sale price, unit characteristics	January 1999–December 2007
DataQuick	NODs	Date of NOD, amount owed	July 2006–mid-August 2012
DataQuick	Foreclosures	Foreclosure status	January 2007–mid-August 2012
HMDA	LAR	Type of loan, loan amount, subprime loans, interest rate	1999–2007

The only proprietary data sets used for this report are from DataQuick. We use three data sets from DataQuick from 1999 to 2012: home sales, notice of defaults (NODs), and foreclosures. These data sets include comprehensive property characteristics for the top one thousand Metropolitan Statistical Areas nationwide. This data allows users to see trends at the neighborhood level for more detailed information about changes in property values and characteristics such as square feet, number of bedrooms, and so forth. Census tracts that fell within the PUMAs identified previously in Table 2 were used to purchase DataQuick data for each study area.

Data Sets, Uses, and Sample Size

Demographic Background

Demographic information tabulated and presented in this report utilized Decennial Census and Census ACS PUMS data. Data tabulated regarding racial makeup of study areas, education levels, income, and some housing characteristics provide an understanding of the overall economic and housing status of any particular study area, particularly as it relates to the county. Some statistics were taken from published data sets provided by the U.S. Census, while other statistics were calculated.

Homeownership Model

To predict the likelihood of owning a home during this time period between the housing boom and bust, ACS PUMS 2005–7 and 2009–11 data sets were merged (person and household records) and then stacked to create one data set of heads of households in Los Angeles County. Homeowners were identified as household heads age eighteen or older who owned property free and clear or with a mortgage or loan.

To better understand homeownership patterns between racial/ethnic groups, we conducted two homeownership models. The first model accounts for differences in socioeconomic status, immigrant status including the ability to speak English, race, sex, age marital status, number of children, and year. The second model includes all of the variables included in the first model, but also includes a race year interaction variable to test the possible effect of being a particular race in any given year in a particular study area.

The sample sizes of each of the four study areas utilized for predicting homeownership are 1,705 for Downey, 3,905 for Glendale, 2,053 for Inglewood, and 2,500 for the West San Gabriel Valley. Models were run separately for individuals in each study area and, thus, separate data sets were eventually created for each study area.

Housing Burden

Descriptive statistics on housing burden were calculated using the Census Bureau's ACS PUMS and the HMDA LAR data. Housing burden is defined by the Census Bureau as "selected monthly owner costs as a percentage of household income during the past 12 months," (U.S. Census Bureau, 2015, 13).

HMDA offers additional information about housing burden and subprime lending in each of the four study areas that provide context to foreclosure rates in the area. Burden is defined by having a subprime loan or higher-than-average interest rates that could be identified from the HMDA LAR data. Subprime loans are those loans that originated with an interest rate that was more than 3 percent above prime on the first lien and more than 5 percent for second liens. Mean interest rates for various racial groups were calculated using the interest rate charged as reported by financial institutions.

We began with the HMDA data file for California merging together all the years from 1999 to 2007. We then were able to select study areas by identifying the census tracts located within each study area as

defined by PUMAs. For 1999–2007 the sample size for the West San Gabriel Valley is 17,212. For Inglewood there are 32,257 cases, for Glendale 42,014, and for Downey there are 23,786.

Home Purchases Dataset—Purchase Analysis

The Home Purchases Dataset was derived from a purchase of sales records from 1999–2007 in the case study areas. We identified single-family residences and condos purchased in each area using census tract and excluded sales where the lender was an institution. The final Home Purchases Dataset includes 47,515 sales records of single-family homes and condos purchased by individuals from 1999–2007. A breakdown of home purchases by case study area is presented in Table 4.

Table 4 DataQuick Home Purchases of Single-Family Residences or Condos from 1999–2007 by Case Study Area*

Case Study Area	Number of Home Purchases
Downey	10,907
Glendale	19,004
Inglewood	7,823
West San Gabriel Valley	9,781
Total	**47,515**

* Records where institutions purchase a home were excluded.

Source: Home Purchases Dataset – DataQuick Sales Records 1999–2007.

Surname Match

Researchers David Word, Charles Coleman, Robert Nunziata, and Robert Kominski (2000) explored demographic aspects associating last names using a list of more than six million names selected from U.S. Census 2000 data. Specifically, researchers assessed relationships between surnames and basic demographic characteristics such as gender, race, and ethnicity. One of the products of this study is a list of more than 150,000 common surnames as well as probabilities that each surname belonged to a person who is African American, non-Hispanic white, Asian or Pacific Islander (API), Hispanic or Latino, American Indian or Alaska Native, or multiracial. Using the surname of buyers in DataQuick sales records, we matched the surname list to the Home Purchases Dataset.

The surname match produced 39,555 matches (83 percent). We assigned the race/ethnicity of owners in unmatched as “Other Race.” All buyers in the Home Purchases Dataset with at least a 70 percent probability of being of a certain race/ethnicity or multiracial were assigned as that race/ethnicity. If a buyer’s surname does not meet the 70 percent threshold for any racial/ethnic category, we also assigned them as “Other Race.”

Armenian Surnames in Glendale

Initial racial/ethnic classifications produced a large number of “Other Race” buyers in the Glendale area. Approximately 7,600 (40 percent) buyers were grouped into this category, meaning they either had a last name that was not on the surname list or their name did not meet the 70 percent threshold for any

racial/ethnic category. A review of the surnames in this "Other Race" group revealed that a preponderance of buyers had Armenian surnames. ACS 2006–10 tables also indicate that 79 percent of all white and foreign-born Glendale residents immigrated from Western or South Central Asia. As a result, we reclassified all "Other Race" buyers in this case study area, except those with "Lee" surnames, as "Non-Hispanic White." This adjustment likely overcounts non-Hispanic white owners in the area, although we believe the overrepresentation is marginal.

African American Surnames in Inglewood

Data analyses of ACS 2005–7 and 2009–11 PUMS data show that approximately 47 percent of homeowners in Inglewood are African American. However, our surname match and race/ethnicity assignments identified less than 5 percent of African American buyers in the area. A closer review of surnames revealed that while the median probability that a buyer in this area is non-Hispanic white was 61 percent, the median probability for African American was 17 percent. Furthermore, 90 percent of buyer surnames did not meet a 50 percent threshold for the "African American" designation. Given that many non-Hispanic whites have surnames in common with African Americans and the racial /ethnic distribution of homeowners in Inglewood, we increased the threshold for a "Non-Hispanic White" assignment to greater than or equal to 90 percent and reduced the criterion for the "African American" designation to greater than or equal to 25 percent. This 25 percent threshold represents the 65th percentile of African American probabilities for all surnames in this case study are. As a result, the percent of 1999–2007 home purchases by African Americans in this area increased to 32 percent.

We also identified seven census tracts in Inglewood where more than 75 percent of residents are African American. Other residents in these tracts are predominantly Latino, and non-Hispanic whites made up no more than 8 percent of residents. In turn, we recoded all "Non-Hispanic White" buyers in these tracts to "African American." The final proportion of African American home purchasers in the Inglewood case study area is 44 percent or 3,466 home buyers. Although this percentage is closer to the number of African American homeowners from 2005–7 and 2009–11, a survey of surnames in the "Other Race" category suggests that we may be undercounting non-Hispanic white and African American buyers. However, without any other indicators to distinguish the two, these buyers remained in this racial category.

Merged Purchases, Defaults, and Foreclosures Dataset—Notice of Default and Foreclosure Analysis

In an effort to gain better understanding of foreclosures in each target case study area and population, we sought to follow homeowners who purchased homes in these areas from 1999 to 2007 in subsequent years. Rates of NOD and foreclosure among these owners were of special interest, so we purchased a data set of all NODs in each case study area from 2006 to 2012 as well as all foreclosures from 2007 to 2012 from DataQuick.

Before linking NOD and foreclosure information to the correct homeowner, we selected the latest purchase for each property from the 1999–2007 Home Purchases Dataset, as many homes could have been sold several times during this period. We also selected the first cases of default and foreclosure for each property in their respective data sets. The remaining NODs were merged with selected home sales

using a unique property ID, owner last name, and owner first name. Foreclosures were then merged to this data set by Assessor's Parcel Number (APN). Note that owner names were not available in the foreclosure data set, and unlike property ID, APN was available for all records. The final Merged Purchases, Defaults, and Foreclosures Dataset was used for exploring and calculating NOD and foreclosure rates in each case study area (see Table 5).

Table 5 DataQuick Merged Purchases (1999–2007), Defaults (2006–12), and Foreclosures Records (2007–12) by Case Study Area*

Case Study Area	Number of Home Purchases
Downey	7,580
Glendale	13,028
Inglewood	5,569
West San Gabriel Valley	7,262
Total	**33,439**

* Records where institutions purchase a home were excluded.

Source: Merged Purchases, Defaults, and Foreclosures Dataset – DataQuick Sales Records 1999–2007, DataQuick Notices of Default Records 2006–2012, and DataQuick Foreclosures Records 2007–2012.

Study Limitations

While the samples taken from the four study areas are not representative of all of Los Angeles, this is a problem for any case study. The sample is selective because of geographic and temporal criteria. While it is more advantageous to have a larger and inclusive sample, we are constrained by cost to acquire such detailed data as all sales during the study period at the neighborhood level. In Los Angeles, available data indicate that prices peaked in the second half of 2007, and during the same period, foreclosures started to surpass the levels during the early 1990s, marking the start of the foreclosure crisis. We trace foreclosure for the entire cohort. As mentioned, the objective is to develop a method to analyze and understand the impact of foreclosures on various racial/ethnic groups. We are hopeful that the method that can be applied in future research would have greater geographic, temporal, and racial/ethnic coverage. Despite the limitations, our findings are useful. For example, we would be able to test for any intergroup differences (Asians, Latinos, and others, based on surnames).

Surname Match Limitations

The surname match allows us to study home purchase patterns and the impacts of foreclosure on different racial/ethnic populations. Although probabilities attached to each surname were derived from top names found in the 2000 Decennial Census, the process of assigning a home purchaser a racial/ethnic category has a number of limitations. The first is that not all surnames in the Home Purchases Dataset had a matching name in the surname list. These owners were assigned to the "Other Race" category. Although a 70 percent threshold for assignment is relatively high, false positive errors

may be present, and owners with surnames that did not reach the threshold for any category, with the exception of some owners in Inglewood, were also assigned in the "Other Race" category.

A preponderance of Armenian surnames was not in the surname list, so these owners were initially assigned in the "Other Race" category. We made the decision to assign all "Other Race" owners, except those with "Lee" surnames as non-Hispanic white. We also recognize that Armenian Americans have different backgrounds than most non-Hispanic white Los Angeles County residents. As a result, experiences of non-Hispanic white owners in Glendale may not be representative of white owners in other parts of the county.

Assigning racial/ethnic categories for owners in the Inglewood case study area was particularly challenging. A large majority of owners did not reach a 70 percent threshold for race/ethnicity assignment because a notable number of surnames are shared by African Americans and non-Hispanic whites, and nearly half of homeowners in Inglewood are African American. In turn, we lowered the threshold for categorizing "African Americans," increased the threshold for "non-Hispanic white," and made assumptions based on demographic distributions in select census tracts. However, readers should use caution when interpreting and comparing results for African Americans and non-Hispanic whites in Inglewood.

DataQuick Home Purchase, Notice of Default, and Foreclosure Merge

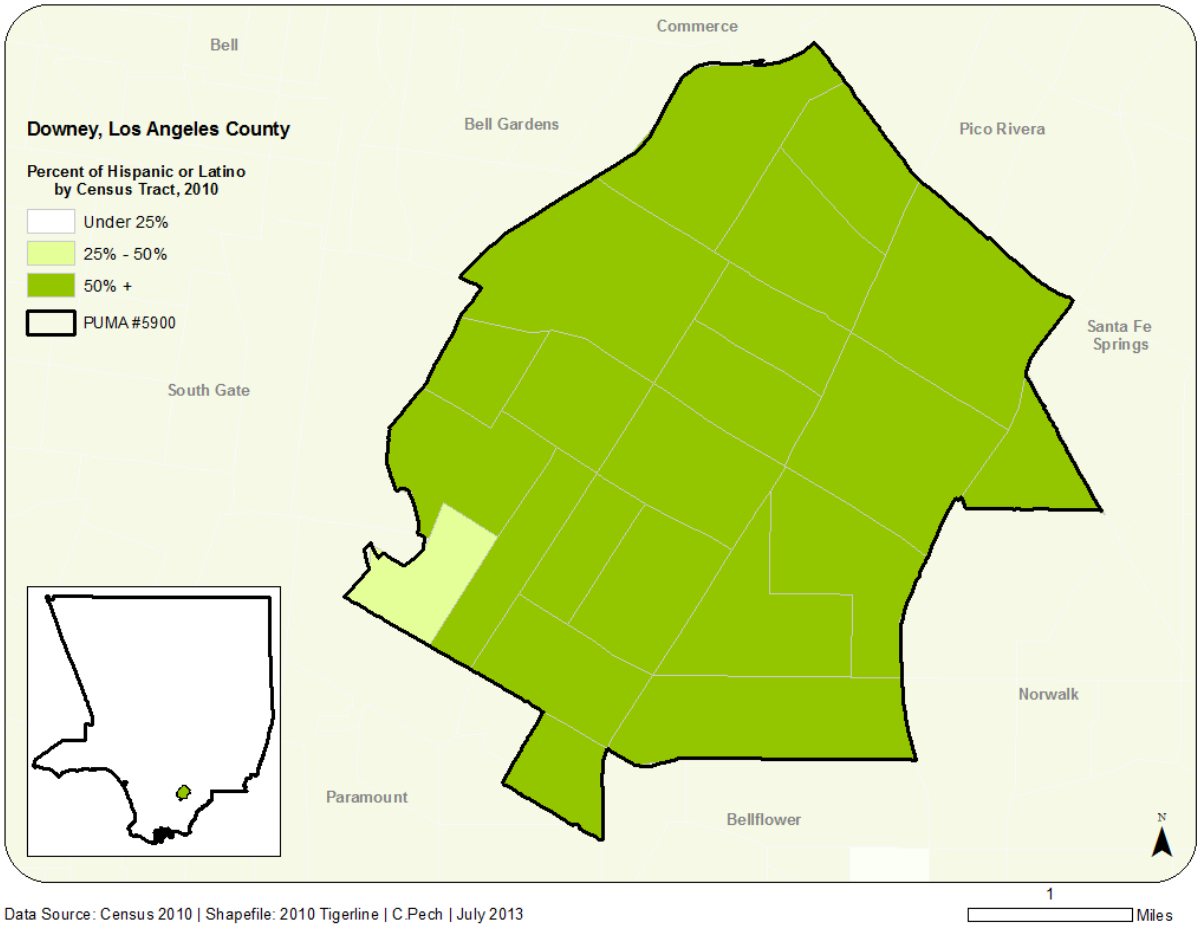
Recall that the merge selects the latest purchase (1999–2005) for each property in the case study areas and matches first occurrences of NOD (2006–12) and foreclosure (2007–12), if present, to those properties. This set of procedures allows us to follow a set of homeowners over a span of years and addresses challenges in matching the correct owners across data sets. (The foreclosure data set does not track the name of the homeowner.) The merged Home Purchase, Notice of Default, and Foreclosure Dataset represents a sample of owners who purchased from 1999 to 2005. The data set is also limited in that it does not track short sales, which is an area less understood.

CASE STUDY AREA PROFILES

Downey

In 2011, the total population of Downey was 111,903 with a total number of 33,141 households. The city (Figure 3) is a fairly diverse city with Latinos representing a majority (66.3 percent) of the population compared to all racial groups. Latinos are followed by non-Hispanic whites, whom make up 21.1 percent of the population, and then by Asians at 7.8 percent and blacks at 3.4 percent.

Figure 3 City of Downey Census Tracts 2010



In terms of economic and financial characteristics, Downey is fairly similar to the county with a median household income of $57,234 (compared to the county's median household income of $54,630) and a homeownership rate of 49.2 percent compared to the county's 47 percent.

Table 6 Downey Key Demographics

	2005–2007	2009–2011
Race		
Asian	7.8%	6.4%
Black	3.4%	3.8%
Latino	66.3%	71.6%
Non-Hispanic Whites	21.1%	17.0%
Bachelor's Degree or Higher	20.0%	18.1%
Foreign Born	33.5%	35.9%
Entered 2000 or later	15.0%	19.4%
Speak English Only	37.0%	30.5%
Below Poverty Rate	9.1%	10.9%
Unemployment Rate	7.8%	11.8%

Source: Census American Community Survey 2007 (3 year) and 2011 (3 year)
Notes: 2009-2011 unemployment rate calculated by dividing number of unemployed persons over sixteen that are in the labor force; this calculation is consistent with that used for percent unemployed for 2005-2007. 2005-2007 race data calculated by taking race alone category divided by total one race population, except for Latinos which was divided by total alone and combined race.

Even in the short time between 2005–7 and 2009–11 we can see some demographics changes significantly, as shown in Table 6. For instance the unemployment rate rose to 11.8 percent, which is consistent with the rate in the county, and a lower self-reported median home value that went down from $593,000 in the 2005–7 time period to $424,000 in 2009–11. Table 7 also shows that there has been an increase in housing burden as measured by selected monthly owner costs as a percent of household income with 43.4 percent of the Downey population spending more than 35 percent of the household income on housing costs.

Table 7 Downey Housing and Income Characteristics

	2005-2007	2009-2011
Average Household Size	3.23	3.34
Median Household Income (in dollars)	56,448	57,234
Per Capita Income (in dollars)	22,524	22,517
Homeownership Rate	54.5%	49.2%
Median Home Value (in dollars)	593,300	424,100
Home Values (in dollars)		
$200,000 to $299,999	3.3%	9.8%
$300,000 to $499,999	25.7%	53.7%
More than $500,000	67.2%	31.0%
Selected Monthly Owner Costs as % of Household Income		
less than 20%	14.8%	19.5%
20%-34.9%	28.5%	37.2%
35% or more	31.4%	43.4%

Source: Census American Community Survey 2007 (3 year) and 2011 (3 year)

When we conduct a more in-depth analysis of demographics by race, we find that Latinos are highly immigrant with more than 50 percent of the population being foreign born in Downey (see Table 8). A small proportion of the Latino immigrants in Downey entered in the last ten years and most immigrants speak English well. The Latino population in Downey is less educated than the non-Hispanic white population among whom 22.4 percent hold a bachelor's degree or higher level of education compared to Latinos at 13.6 percent.

Table 8 Downey Key Demographics by Race

	2005 -2007			2009-2011		
	Latino	Non-Hispanic White	Other	Latino	Non-Hispanic White	Other
Bachelor's Degree or Higher	13.6%	22.4%	55.0%	15.2%	25.9%	44.3%
Foreign Born	58.4%	11.0%	64.1%	61.0%	12.7%	58.8%
Entered =< 10 years ago	9.2%	6.5%	20.0%	7.3%	7.6%	19.3%
Speaks English Well	65.2%	9.5%	46.7%	8.9%	16.3%	43.4%
Unemployed	2.2%	3.6%	4.3%	5.3%	5.8%	7.5%

Source: Census ACS, PUMs 2005-2007 and 2009-2011.

For the most part, key demographics changed only slightly from the 2005–7 to the 2009–11 period for all racial groups across variables. Some exceptions include the unemployment rate across groups, which doubled for Latinos and almost doubled for non-Hispanic whites and others. The unemployment rate is lowest among Latinos between 2005 and 2007 and remains so into 2009–11. However, overall across-race unemployment rate was higher in 2009–11 compared to 2005–7.

Key housing and income characteristics by race demonstrate that Latinos have a lower homeownership rate compared to non-Hispanic whites and a lower rate than that in Los Angeles County. The data in Table 9 also show that in 2005–7, 19.2 percent of Latinos are spending more than 50 percent of the household income on housing costs almost comparable to non-Hispanic whites (20.1 percent) and have a mean self-reported home value that is close to non-Hispanic whites at $671,099 compared to non-Hispanic whites at $684,852. From 2005–7, while mean household size for Latinos is larger than that of non-Hispanic whites, median household income is more than $25,000 lower than that for non-Hispanic whites.

Table 9 Downey Housing and Income Characteristics by Race

	2005 -2007			2009-2011		
		Non-Hispanic			Non-Hispanic	
	Latino	White	Other	Latino	White	Other
Homeownership	41.6%	65.8%	46.0%	41.1%	61.0%	42.2%
Mean Home Value (in 2011 dollars)	671,099	684,852	718,457	497,175	472,705	486,916
Select Monthly Owner costs =>50%	19.2%	20.1%	24.0%	21.5%	22.4%	34.4%
Mean Household Size	3.4	2.2	2.8	3.6	2.3	2.8
Median Household Income (in 2011 dollars)	44,040	71,513	53,760	57,671	54,465	70,000

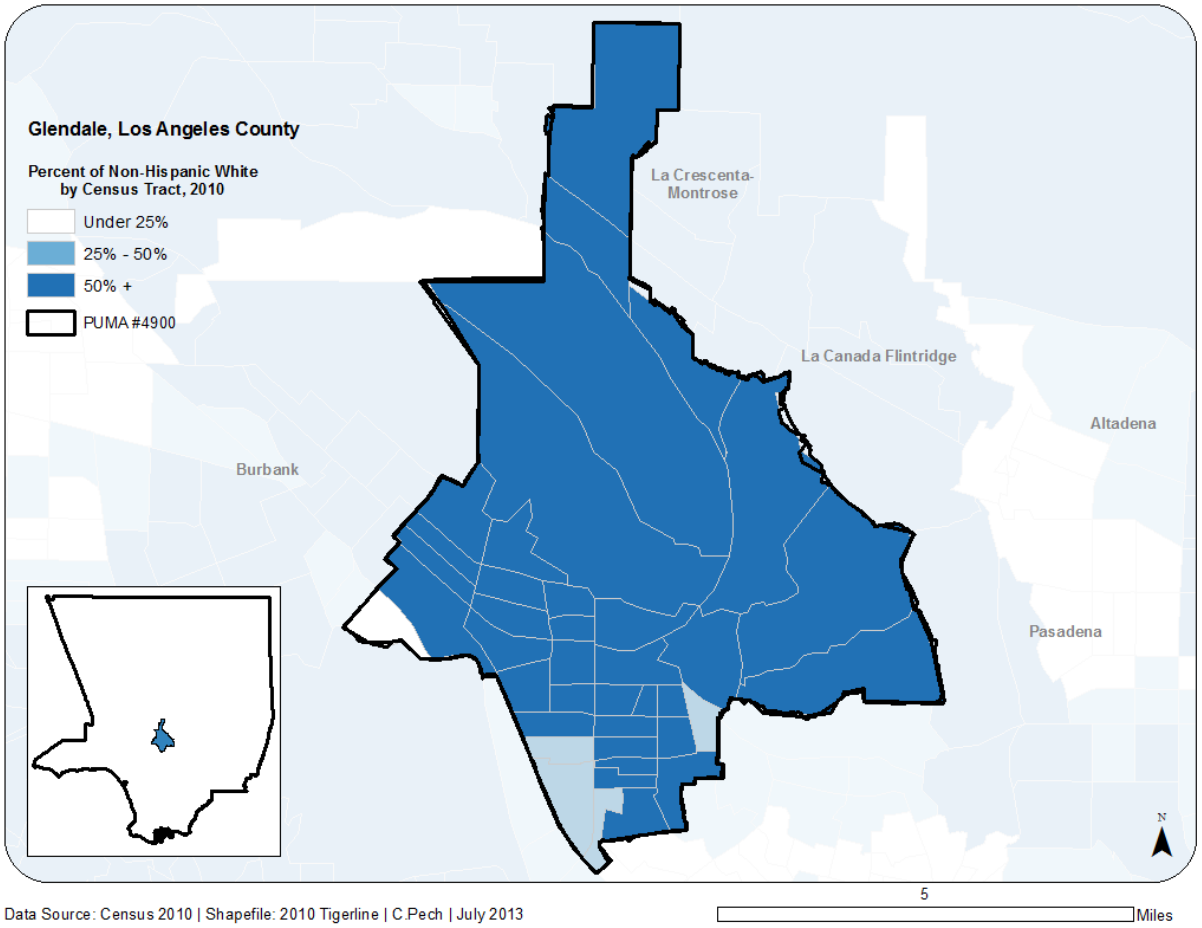
Notes: All housing characteristics include only those who own single family homes.
Source: Census ACS, PUMs 2005-2007 and 2009-2011.

Homeownership rates declined among non-Hispanic whites and others in Downey, while the rate for Latinos remained the same despite significant changes in mean home value. Mean home values in 2005–7 compared to 2009–11 show significant declines in value. Across racial groups the mean home value difference from the two time periods was least for Latinos. Interestingly enough, while income increased for Latinos and others from 2005–7 to 2009–11, for non-Hispanic whites median household income decreased notably (see Table 9).

Glendale

The City of Glendale is located in the north part of Los Angeles County and as of 2010 the city population is 191,719. It is the third-largest city in Los Angeles County (see Figure 4). It is a fairly affluent community with a homeownership rate on par with the county average, higher education attainment, and median home value.

Figure 4 City of Glendale Census Tracts 2010



Glendale is a predominantly non-Hispanic white community with a majority of the population being foreign born with Armenian ancestry (see Table 10). Asian Americans and Latinos are both a sizeable portion of the population in Glendale, making up 15 percent and 17 percent, and 17 percent and 16.9 percent of the total population in 2005–7 and 2009–11, respectively.

Table 10 Glendale Key Demographics

	2005-2007	2009-2011
Race		
Asian	15.0%	15.7%
Black	1.5%	1.3%
Latino	17.0%	16.9%
Non-Hispanic Whites	64.8%	63.9%
Bachelor's Degree of Higher	35.8%	40.0%
Foreign Born	54.0%	55.6%
Entered 2000 or later	20.1%	34.1%
Speak English Only	33.4%	29.9%
Below Poverty Rate	11.5%	13.9%
Unemployment Rate	5.4%	12.0%

Source: Census American Community Survey 2007 (3 year) and 2011 (3 year)
Notes: 2009-2011 unemployment rate calculated by dividing number of unemployed persons over 16 that are in the labor force; this calculation is consistent with that used for percent unemployed for 2005-2007. 2005-2007 race data calculated by taking race alone category divided by total one race population, except for Latinos which was divided by total alone and combined race.

Most changes that occurred between the two time periods were in the significant increase in unemployment and decrease in median home value that was close to $80,000. There is also a higher proportion of homeowners that pay more than 35 percent or more of their income to housing costs, as shown in Table 11.

Table 11 Glendale Housing and Income Characteristics

	2005-2007	2009-2011
Average Household Size	2.7	2.7
Median Household Income (in dollars)	52,443	51,747
Per Capita Income (in dollars)	28,774	28,715
Homeownership Rate	39.3%	36.5%
Median Home Value (in dollars)	667,100	587,400
Home Values		
$200,000 to $299,999	4.0%	7.0%
$300,000 to $499,999	21.3%	27.0%
More than $500,000	71.2%	62.7%
Selected Monthly Owner Costs as % of Household Income		
less than 20%	18.1%	21.0%
20%-34.9%	25.5%	33.2%
35% or more	36.6%	45.8%

Source: Census American Community Survey 2007 (3 year) and 2011 (3 year)

As mentioned previously, Glendale is a predominantly non-Hispanic white community that is fairly immigrant and highly educated. This is also true of other racial minorities residing in the area including Asians who have a foreign-born rate of 87.4 percent in 2005–7 and Latinos who have a foreign-born rate of 66.7 percent (see Table 12). Asians and others in the area have a higher proportion of their population holding a bachelor's degree or higher.

Table 12 Glendale Key Demographics by Race

	2005–2007				2009–2011			
	Latino	Non-Hispanic White	Asian	Other	Latino	Non-Hispanic White	Asian	Other
Bachelor's Degree or Higher	21.43%	38.8%	61.1%	40.6%	22.4%	40.9%	64.7%	48.9%
Foreign Born	65.7%	58.0%	87.4%	22.6%	65.4%	59.0%	86.5%	43.4%
Entered = < 10 Years Ago	7.2%	28.0%	26.7%	8.0%	7.1%	26.3%	24.4%	29.3%
Speaks English Well	59.2%	35.2%	66.9%	15.5%	61.7%	37.0%	67.4%	29.3%
Unemployed	3.0%	2.5%	3.4%	2.2%	3.2%	6.7%	2.5%	11.1%

Source: Census ACS, PUMs 2005-2007 and 2009-2011.

From 2005–7 to 2009–11 not many demographic shifts occurred other than the substantial increase in the rate of non-Hispanic whites and others being unemployed.

While key demographics did not change much over the time period between 2005 and 2011, more significant changes can be seen in income and home value (see Table 13). In particular, the mean home value for all groups decreased significantly between the two major time periods. In addition, the most significant difference can actually be seen for non-Hispanic whites in Glendale. Non-Hispanic whites in Glendale also had higher mean home values overall compared to all other racial groups from 2005 to 2011.

Table 13 Glendale Housing and Income Characteristics by Race

	2005 -2007				2009-2011			
	Latino	Non-Hispanic White	Asian	Other	Latino	Non-Hispanic White	Asian	Other
Homeownership Rate	22.8	31.7	29.1	21.3	24.7	31.7	29.4	17.1
Mean Home Value (in 2011 dollars)	734,854	835,638	751,754	743,664	497,175	472,705	450,000	486,916
Select Monthly Owner Costs =>50%	32.8	25.1	24.5	22.2	24.1	27.2	26.9	48.0
Mean Household Size	2.59	2.44	2.84	2.48	2.90	2.47	2.77	2.35
Median Household Income (in 2011 dollars)	47,460	81,202	85,492	87,762	48,000	74,292	84,958	68,142

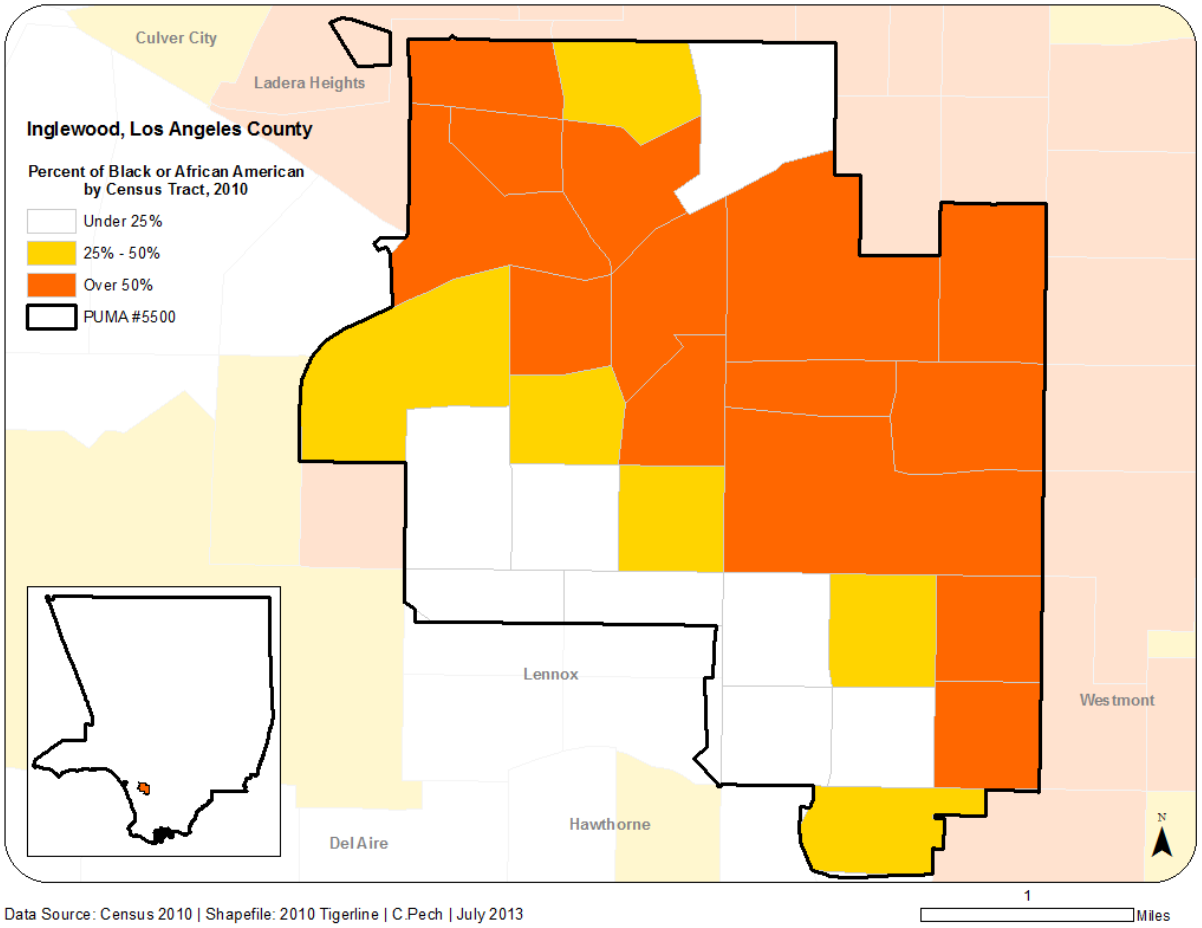
Notes: All housing characteristics include only those who own single family homes.
Source: Census ACS, PUMs 2005-2007 and 2009-2011.

Housing burden as defined by select monthly ownership costs being more than 50 percent of income increased for non-Hispanic whites, Asians, and others but not for Latinos. Income also went down for all groups over the time periods, except for Latinos.

Inglewood

Inglewood is a fairly diverse community in Los Angeles County with a high proportion of Latinos and blacks, moderate income levels relative to county averages, and a higher proportion of native-born individuals with a poverty rate and unemployment rate slightly above county averages for the time period between 2005 and 2011. The City of Inglewood is located in the southwest portion of the county (see Figure 5).

Figure 5 City of Inglewood Census Tracts 2010



Overall, demographics in Inglewood show that Latinos and blacks make up the overwhelming majority of the population in Inglewood. The racial makeup from the two time periods does not change. There are only slight changes in the proportion of bachelor's degrees from 16.3 percent to 17.2 percent and the proportion of foreign born from 30.1 percent to 28.5 percent. The most notable change from 2005–7 and 2009–11 is the level of unemployment, which went from 6.7 percent to 13 percent (see Table 14).

Table 14 Inglewood Key Demographics

	2005–2007	2009–2011
Race		
Asian	1.9%	1.3%
Black	40.3%	41.7%
Latino	52.5%	50.4%
Non-Hispanic Whites	3.1%	3.7%
Bachelor's Degree or Higher	16.3%	17.2%
Foreign Born	30.1%	28.5%
Entered 2000 or Later	18.0%	21.3%
Speak English Only	48.3%	48.2%
Below Poverty Rate	20.3%	22.4%
Unemployment Rate	6.7%	13.0%

Notes: 2009-2011 unemployment rate calculated by dividing number of unemployed persons unemployed for 2005-2007 over sixteen that are in the labor force; this calculation is consistent with that used for percent. 2005-2007 race data calculated by taking race alone category divided by total one race population except for Latinos which was divided by total alone and combined race
Source: Census American Community Survey 2007 (3 year) and 2011 (3 year)

Despite the change in median home value, homeownership rates remained relatively the same from one time period to another. According to Table 15, self-reported median home value decreased dramatically from $462,200 to $326,700 overall, the proportion of homes with more than $500,000 value went down from close to 41 percent in 2005–7 to 13.6 percent in 2009–11. At the same time, the proportion of homeowners paying 20 percent to 34.9 percent and 35 percent or more went up in percentage points. Similarly, the proportion of those paying 35 percent or more also went up from 46.2 percent to 51.2 percent, a change of 5 percent from the period of the boom to the postboom. Therefore, it appears that housing burden was increasing at the same time perceived property values were decreasing.

Table 15 Inglewood Housing and Income Characteristics

	2005–2007	2009–2011
Average Household Size	3.06	2.98
Median Household Income (in dollars)	40,110	41,622
Per Capita Income (in dollars)	17,231	19,850
Homeownership Rate	36.4%	36.5%
Median Home Value (in dollars)	462,200	326,700
Home Values (in dollars)		
$200,000 to $299,999	12.5%	30.5%
$300,000 to $499,999	43.3%	44.3%
More than $500,000	40.9%	13.6%
Selected Monthly Owner Costs as % of Household Income		
Less Than 20%	13.0%	20.4%
20%-34.9%	25.7%	28.5%
35% or More	46.2%	51.2%

Source: Census American Community Survey 2007 (3 year) and 2011 (3 year)

In examining various demographic variables by race we find that black and other populations in Inglewood are more highly educated than the Latinos residing in this community (see Table 16). Blacks also have a much lower rate of foreign born compared to Latinos and others in Inglewood. Unemployment rates are fairly comparable across race, although in 2009–11 there are some differences to be noted.

Table 16 Inglewood Key Demographics by Race

	2005–2007			2009–2011		
	Black	Latino	Other	Black	Latino	Other
Bachelor's Degree or Higher	25.7%	6.0%	44.3%	27.6%	5.4%	36.5%
Foreign Born	6.2%	79.4%	28.7%	7.5%	83.3%	28.2%
Entered = < 10 years ago	22.7%	16.3%	19.5%	29.2%	8.0%	16.5%
Speaks English Well	6.9%	51.2%	2367.0%	7.6%	52.0%	28.9%
Unemployed	2.3%	2.2%	23.7%	7.0%	5.7%	3.7%

Source: Census ACS, PUMs 2005-2007 and 2009-2011.

For instance, the rate of unemployment went up across race, but most for blacks, followed by Latinos and then others. For blacks, the rate of unemployment went up significantly from 2.3 percent to 7 percent. For Latinos we can see a similar pattern of the unemployment rate increasing from 2.2 percent in the 2005–7 time period to 5.7 percent in the 2009–11 time period.

For the most part blacks appear to be faring better than Latinos, the second-largest racial/ethnic group in the area (see Table 17). Blacks have a higher mean home value and median household income, while also having less burden (in terms of select monthly owner costs) and small households. This holds true across the time period between 2005–7 and 2009–11.

Table 17 Inglewood Housing and Income Characteristics by Race

	2005–2007			2009–2011		
	Black	Latino	Other	Black	Latino	Other
Homeownership	24.7%	26.0%	34.6%	27.3%	24.9%	36.9%
Mean Home Value (in 2011 dollars)	577,256	521,936	570,559	414,345	343,786	404,472
Select Monthly Owner Costs =>50%	28.8%	30.8%	36.0%	24.4%	32.6%	20.5%
Mean Household Size	2.15	3.99	2.05	2.16	3.96	2.28
Median Household Income (in 2011 dollars)	44,800	43,200	39,200	45,904	36,104	47,186

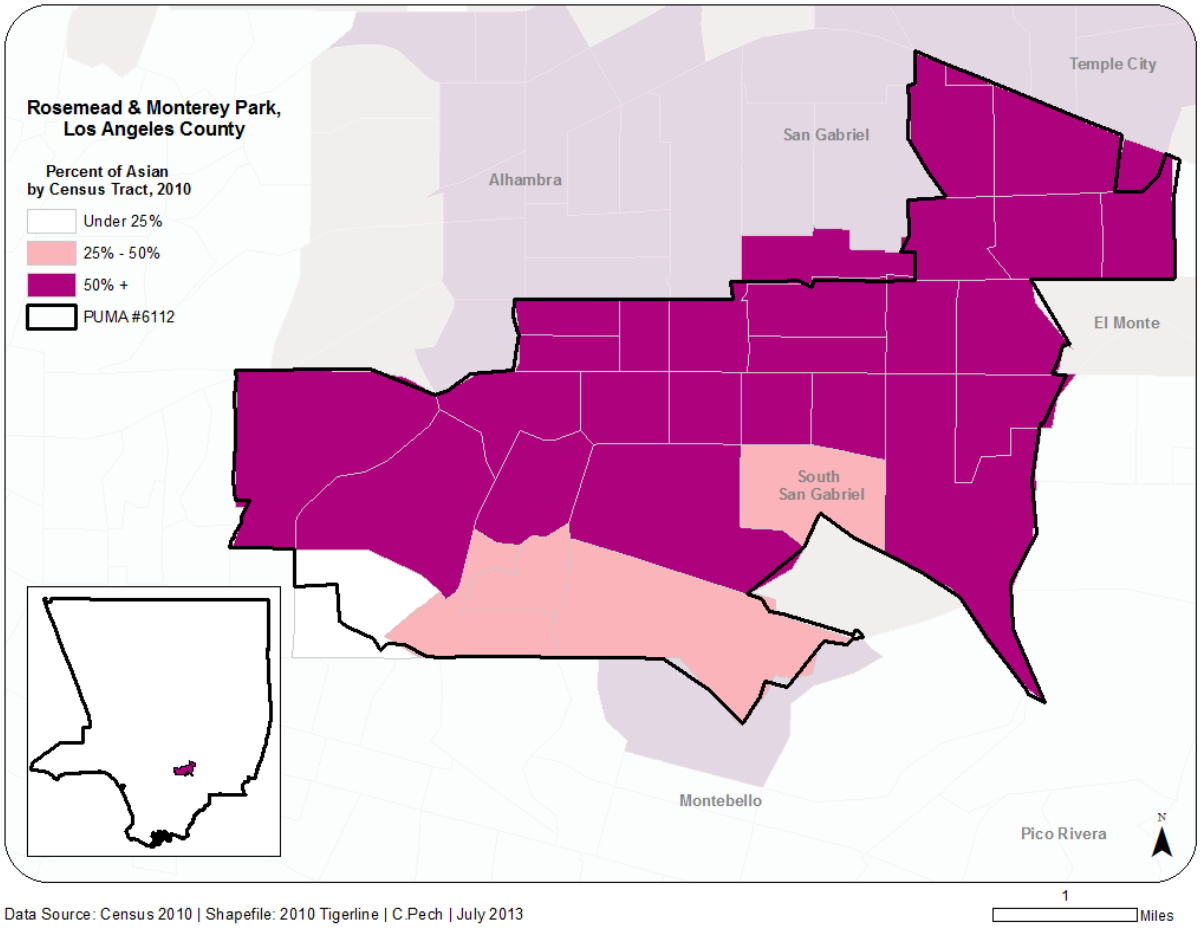
Notes: All housing characteristics include only those who own single-family homes.
Source: Census ACS, PUMs 2005-2007 and 2009-2011.

Interestingly enough, while the homeownership rate among Latinos was slightly higher than blacks from 2005 to 2007, black homeownership was higher than Latino homeownership in Inglewood from 2009 to 2011. In 2009–11, Latinos had a greater proportion of households with high housing burden at 32.6 percent compared to blacks with 24.4 percent of the population with burden and 20.5 percent for other races in the area.

West San Gabriel Valley

For purposes of this study the West San Gabriel Valley incorporates the cities of Monterey Park and Rosemead. As displayed by the map in Figure 6, Monterey Park is a city located in the east part of the county. It is located ten miles east of downtown Los Angeles. The City of Rosemead is adjacent to Monterey Park bordering on the east/northeast portion of Monterey Park. As of 2010, Rosemead had a population of 53,764 individuals and Monterey Park had a population of 60,269.

Figure 6 West San Gabriel Valley Census Tracts 2010



The majority of the population in the West San Gabriel Study area is Asian (see Table 18). A substantial proportion, 32 percent and 30.3 percent, respectively from 2005–7 and 2009–11, of individuals in the area are Latino. Non-Hispanic whites also make up a considerable proportion of the population. The racial makeup from one time period to another changed only very slightly with Asians and Latinos making up the overwhelming majority of the population.

Table 18 West San Gabriel Valley Key Demographics

	2005–2007	2009–2011
Race		
Asian	62.3%	63.3%
Black	0.2%	0.3%
Latino	32.0%	30.3%
Non-Hispanic Whites	19.1%	21.0%
Bachelor's Degree or Higher	21.1%	21.6%
Foreign Born	54.8%	55.8%
Entered 2000 or later	17.1%	28.0%
Speak English Only	20.6%	21.3%
Below Poverty Rate	10.3%	15.4%
Unemployment Rate	6.0%	11.6%

Notes: 2009-2011 unemployment rate calculated by dividing number of unemployed persons unemployed for 2005-2007 over sixteen that are in the labor force; this calculation is consistent with that used for percent. 2005-2007 race data calculated by taking race alone category divided by total one race population except for Latinos which was divided by total alone and combined race
Source: Census American Community Survey 2007 (3 year) and 2011 (3 year)

The population is also highly foreign born with more than 50 percent of the population born outside of the United States. This proportion went up very slightly by one percentage point from the 2005–7 to 2009–11 time period. Among those foreign born, the overwhelming majority speak English and another language, or another language only. The change in poverty rate and unemployment between 2005–7 and 2009–11 is fairly notable; both increased in percentage points over time from 10.3 percent to 15.4 percent for poverty and 6.0 percent to 11.6 percent for unemployment.

More specific economic changes can also be seen in the housing and income characteristics in the West San Gabriel Valley (see Table 19). Median household income went up slightly, while per capita income went down slightly. The homeownership rate in the area went down slightly from 53.6 percent to 51.6 percent. In contrast, average household size went up slightly from 3.40 to 3.49.

Table 19 West San Gabriel Valley Housing and Income Characteristics

	2005–2007	2009–2011
Average Household Size	3.40	3.49
Median Household Income (in dollars)	47,041	49,516
Per Capita Income (in dollars)	21,677	20,423
Homeownership Rate	53.6%	51.6%
Median Home Value (in dollars)	481,750	455,450
Home Values (in dollars)		
$200,000 to $299,999	6.2%	6.0%
$300,000 to $499,999	41.2%	51.8%
More than $500,000	44.5%	36.7%
Selected Monthly Owner Costs as % of Household Income		
Less than 20%	15.9%	22.7%
20%-34.9%	19.5%	28.7%
35% or More	30.6%	48.7%

Source: Census American Community Survey 2007 (3 year) and 2011 (3 year)

Homeownership remained fairly stable and median home value saw some noticeable decline, but not as distinctly as other areas in Los Angeles County. Median home values went down slightly from $481,750 to $455,450. Also, the proportion of homes that fell in the middle range of home values between $300,000 to $499,999 increased (41.2 percent to 51.8 percent), while the proportion of homes valued more than $500,000 fell from 44.5 percent to 36.7 percent.

While self-reported median home values declined as did homeownership slightly (53.6 percent to 51.6 percent), housing burden increased as exemplified by the percent of households paying more than 35 percent and the percent of households paying between 20 percent to 34.9 percent of their household income to housing costs. This is particularly true for the 35 percent or more category, which went from 30.6 percent in 2005–7 to 48.7 percent in 2009–11—an increase of almost twenty percentage points.

As shown in Table 20, Asians in the West San Gabriel Valley are more highly educated and more highly immigrant compared to other racial groups in the community. From 2005 to 2011, more than 29 percent of Asians in the West San Gabriel Valley held a bachelor's degree or higher and more than 85 percent were foreign born, with more than 19 percent arriving in the last ten years. The most significant change from the two time periods, once again, is the rate of unemployment, which increased for all groups and more significantly for Latinos and others.

Table 20 West San Gabriel Valley Key Demographics by Race

	2005–2007			2009–2011		
	Asian	Latino	Other	Asian	Latino	Other
Bachelor's Degree or Higher	31.2%	8.0%	24.3%	29.7%	11.0%	31.7%
Foreign Born	85.1%	49.5%	16.7%	85.2%	42.0%	15.5%
Entered = < 10 years ago	21.5%	13.2%	3.1%	19.9%	3.7%	0.0%
Speaks English Well	50.0%	64.8%	17.3%	49.2%	60.3%	22.0%
Unemployed	2.3%	0.6%	2.3%	4.6%	6.2%	7.3%

Source: Census ACS, PUMs 2005-2007 and 2009-2011.

The most significant change according to Table 20 is with unemployment, which increased in percentage points across all racial groups. Prior to 2009, Latinos had the lowest rate of unemployment, but between 2009 and 2011 they had gone from less than 1 percent of the population being unemployed to 6.2 percent.

While the unemployment rate was higher across race, median household income did not fall for all groups (see Table 21). Latinos in the West San Gabriel Valley and other race individuals saw increases in median household income—only slightly for Latinos, more substantially for other race individuals. Among Asians however, median household income decreased by more than $4,000. This finding could in part explain the higher proportion of Asians that have select monthly owner costs at greater than 50 percent in 2009–11.

Table 21 West San Gabriel Valley Housing and Income Characteristics by Race

	2005–2007			2009–2011		
	Asian	Latino	Other	Asian	Latino	Other
Homeownership Rate	41.8%	42.7%	64.4%	46.9%	40.8%	58.7%
Mean Home Value (in 2011 dollars)	553,980	564,294	549,881	523,911	467,752	463,725
Select Monthly Owner Costs =>50%	24.5%	23.6%	36.8%	30.8%	35.1%	14.4%
Mean Household Size	3.14	3.36	2.06	3.35	3.32	2.26
Median Household Income (in 2011 dollars)	54,000	45,539	42,672	49,400	46,137	52,219

Notes: All housing characteristics include only those who own single-family homes.
Source: Census ACS, PUMs 2005-2007 and 2009-2011.

Table 21 shows that from 2005–7 to 2009–11 the homeownership rate went up in percentage points for Asians, but down for Latinos and others. Mean home values dropped across all groups from 2005–7 to 2009–11 but more drastically for Latinos and others than for Asians in the West San Gabriel Valley. Housing burden increased for Asians and Latinos over time, but for others burden went down. Mixed findings also are true with mean household income, which dropped for Asians, but increased for Latinos and others.

Mean home values decreased for all racial groups across the board from 2005–7 to 2009–11. From 2005 to 2007, the mean Latino home was valued higher than all other groups with a mean home value of $564,294. By the time period 2009–11, mean home values decreased significantly for Latinos and other

race individuals and the least for Asians. Interestingly enough, despite the lower household income for Asians, the Asian homeownership rate went up.

HOMEOWNERSHIP AND FORECLOSURES IN DOWNEY

Homeownership

From the housing boom to the posthousing boom period, homeownership rates went slightly down. This was true across racial groups, but more so for non-Hispanic whites and other race individuals compared to Latinos in Downey. Latino homeownership only decreased by .5 percent, while non-Hispanic white homeownership went down by close to 5 percent and other population homeownership went down by 3.8 percent (see Table 22).

Table 22 Downey Homeownership Rates during and after the Housing Boom

	Total	Latino	Non-Hispanic White	Other
Housing Boom (2005–7)	54.5%	41.6%	65.8%	46.0%
Posthousing Boom (2009–11)	49.2%	41.1%	61.0%	42.2%

Source: Census ACS, PUMS 2005–2007, and 2009–2011.

Table 23 shows that Downey homeowners are fairly diverse, educated, and mostly native born with moderate to high levels of household income. Downey homeowners are predominantly Latino, followed by non-Hispanic whites. A higher proportion of homeowners are native born in both time periods with lower rates of unemployment than the county and higher mean personal and household income compared to that of the county.

Table 23 Downey Homeowner Characteristics

	2005-2007	2009-2011
Latino	47.7%	55.0%
Non-Hispanic Whites	40.3%	33.1%
Blacks	1.9%	1.3%
Asians	9.3%	10.1%
BA degree or higher	25.7%	26.3%
Unemployed	1.6%	3.7%
Foreign born	44.2%	46.7%
= < 10 years in US	1.3%	1.2%
Speaks English Well	42.4%	53.2%
Mean Personal Income	56,039	56,039
Mean Household Income	94,596	98,508

Note: All income adjusted to 2011 dollars.

Source: Census ACS, PUMs 2005-2007 and 2009-2011.

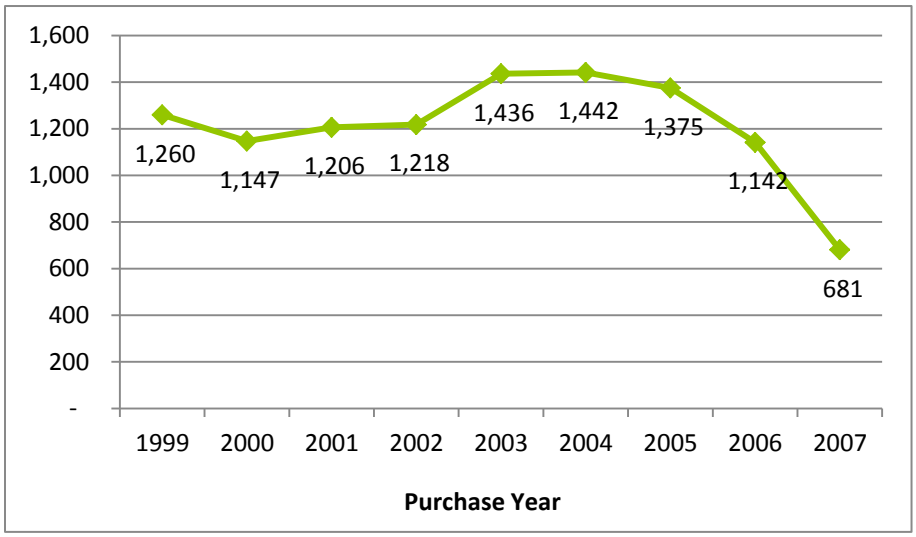
The most significant change from 2005–7 to 2009–11 appears to be the change in the proportion of homeowners that non-Hispanic whites make up in the city (40.3 percent to 33.1 percent), as well as unemployment, which went up from 1.6 percent to 3.7 percent.

Overall, homeownership rates in Downey seemed to remain fairly steady from 2005 to 2011 with a peak of 52 percent (higher than the county average) in 2007 to a low of 45 percent in 2011. As expected, many of the variables we thought would matter in determining homeownership are confirmed by the regression model (see Appendix A, Figure 43). Our findings are consistent with prior research that indicates the importance of immigration status, length of time in the United States, English language proficiency, marital status, and income. Being a newer immigrant lowered the likelihood of being a homeowner, while being in the United States more than twenty years had a positive effect on homeownership. Interestingly enough, the effect of education was not found to be statistically significant for Downey. In addition, the results from a logistic regression show that being Latino, compared to being non-Hispanic white, lowers the likelihood of owning a home (odds ratio = .42). This finding is also statistically significant at the .05 *p* value level. Being "Other Race" compared to being non-Hispanic white also lowered the odds of being a homeowner in Downey. This finding is also statistically significant at the .05 *p* value level. Including interaction variables for race and year did not result in any statistically significant findings.

Home Purchases

The City of Downey experienced noted increases in home purchases starting 2003 (see Figure 7). Prior to then, purchases slightly fluctuated between 1,111 and 1,200 purchases. In 2003, the number of home purchases increased 18 percent to more than 1,400 and continued at this higher rate for the next three years until purchases declined to 2000 levels in 2006 and plummeted in 2007. Only 681 home purchases were recorded during this year.

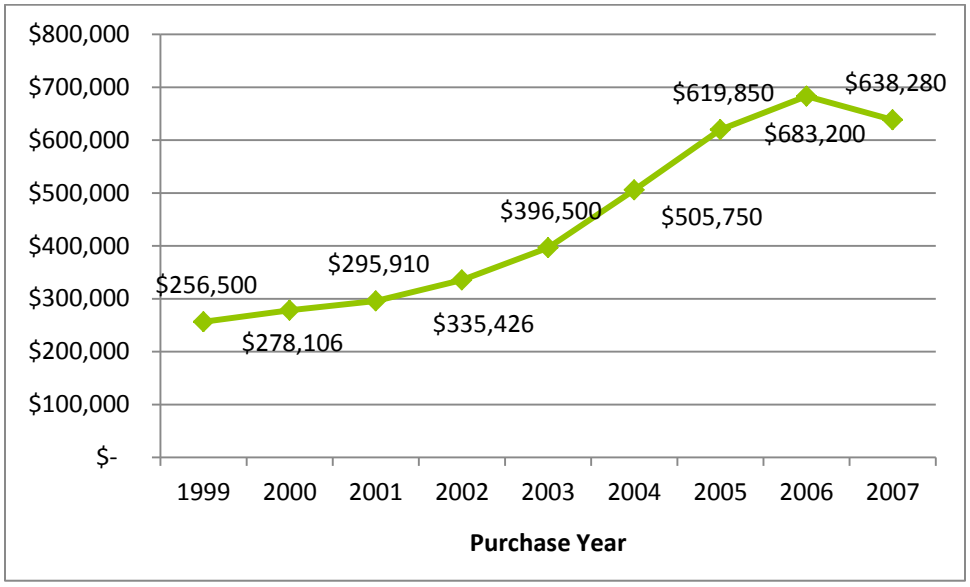
Figure 7 Number of Home Purchases in Downey by Purchase Year from 1999–2007 (n = 10,907)



Source: Home Purchases Dataset – DataQuick Sales Records 1999–2007 (n = 10,907).

While homes were being sold in record numbers, median prices also climbed sharply from 2003 to 2004, increasing from $397,000 to $506,000, and shot up again the following year (see Figure 8). Median purchase prices peaked in 2006 at $683,000 before slightly dipping in 2007. By then, purchases had slowed and reached its lowest point throughout the nine-year period.

Figure 8 Median Purchase Prices (adjusted to 2011 dollars) in Downey 1999–2007 (n = 10,340)

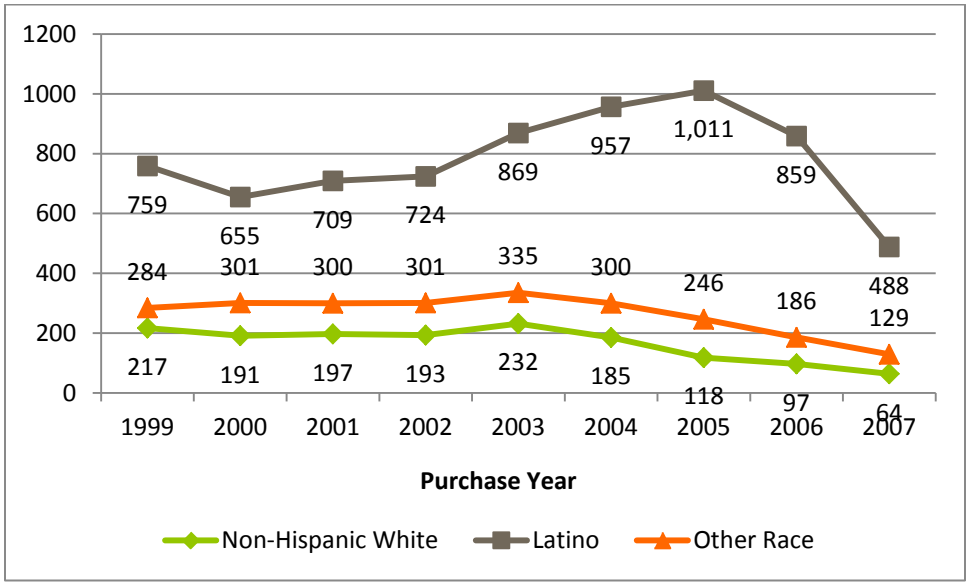


Source: Home Purchases Dataset – DataQuick Sales Records 1999–2007.

Latinos made up a large majority of home buyers in Downey during this period. Nearly two-thirds (65 percent) are Latino, and 14 percent of home buyers are non-Hispanic white. Five percent are API, and note that 17 percent of buyers in this area were categorized as "Other Race." The following sections report race-specific data using three categories: non-Hispanic white, Latino, and other race (which includes APIs and African Americans).

From 1999 to 2007, the racial/ethnic distribution of home buyers in the Downey case study area also began to shift. Figure 9 charts the number of purchases made by Latinos compared to non-Hispanic whites and buyers of other races in Downey from 1999 to 2007. Latino home purchases began to rise in 2003—a few years prior to the start of the housing boom—while purchases by other racial/ethnic groups declined. This suggests that more Latinos were moving to Downey in the years leading up to the housing boom. Purchases by Latino buyers reached a high in 2005 before dropping in 2006 and 2007.

Figure 9 Number of Home Purchases in Downey by Race/Ethnicity* and Purchase Year, 1999–2007 (n = 10,907)



* Race/ethnicity imputed using the surname name list.
Source: Home Purchases Dataset – DataQuick Sales Records 1999–2007 (n = 10,907).

The average home purchased in Downey had three bedrooms and two bathrooms and was approximately 1,500 square feet in size. Some homes dated back to 1890; others were built as recently as 2007. However, a large proportion of purchased homes were built from 1947 to 1956. The types of homes purchased in Downey did not noticeably vary across racial/ethnic groups. A summary of home characteristics is presented in Table 24.

Table 24 Characteristics of Homes Purchased in Downey from 1999–2007 by Race/Ethnicity*

Medians	All Purchases	Non-Hispanic White	Latino	Other Race
Lot Size (n = 10,906)	6,590	6,954	6,434	6,899
Baths (n = 10,899)	2	2	2	2
Beds (n = 10,898)	3	3	3	3
Square Feet (n = 10,907)	1,486	1,480	1,475	1,535
Year Home Built (n = 10,907)	1952	1952	1951	1953

* Race/ethnicity imputed using the surname name list.
Source: Home Purchases Dataset – DataQuick Sales Records 1999–2007 (n = 10,907).

Home Prices

Analyses of purchase prices and total loans demonstrate the rapid increase in housing prices, particularly between 2005 and 2007 (see Table 25). For the purpose of this report, we have ascribed these years as the housing boom period. Earlier years were grouped into the prehousing boom era. Figure 10 lists median home purchase prices by all non-Hispanic white, Latino, and all buyers during the prehousing boom and housing boom years. Median purchase prices for homes purchased in 2005–7 were nearly double the median prices of homes purchased in earlier years. Overall, Latino buyers paid more for their homes compared to non-Hispanic white buyers in Downey. The price difference also seemed to expand during the housing boom years. Not surprisingly, median loan amounts for Latino buyers were also higher than median loan amounts for non-Hispanic whites.

After summing the total loan amount information for each purchase record, we estimated the total amount buyers placed as a down payment by subtracting total loan amount from purchase price. Despite steep increases in median home purchase prices, median down payments did not keep pace. Median down payments among non-Hispanic white home buyers increased from $31,300 during the prehousing boom years to $52,200 during the housing boom period. Median down payments among Latino buyers increased only $2,000 during the same periods, indicating that Latino buyers not only took out greater loans during the housing boom compared to earlier years, but they also likely secured loans at higher interest rates than in previous years.

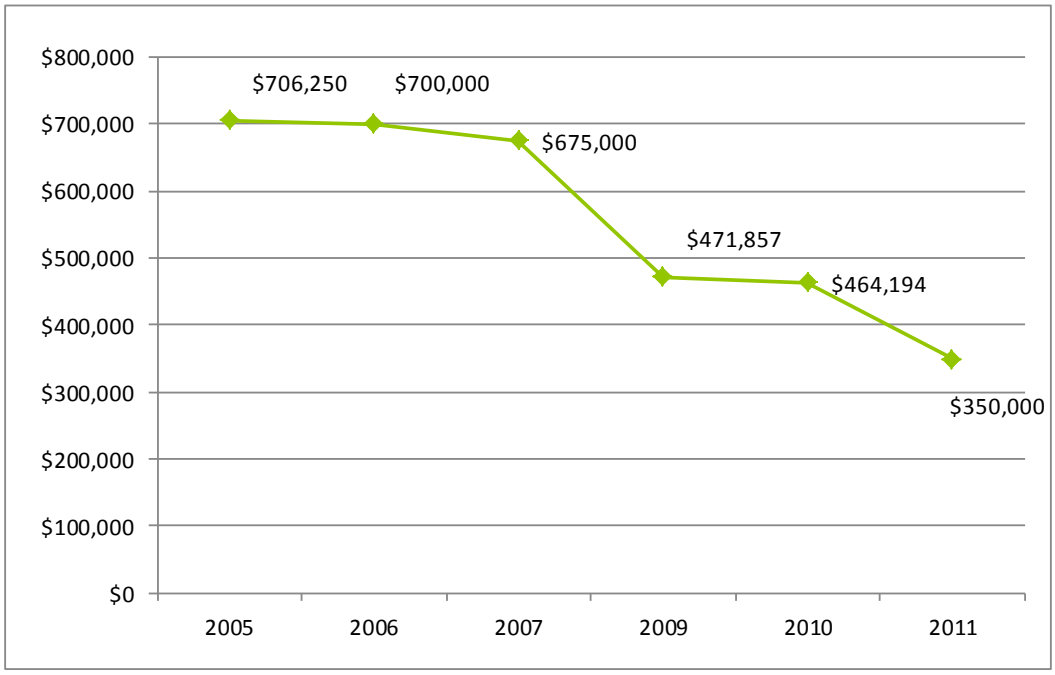
Table 25 Purchase Price, Loan Amounts, and Down Payments (adjusted to 2011 dollars) for Homes Purchased in Downey by Race/Ethnicity* and Purchase Period, 1999–2007

	Median Purchase Price	Median Loan Amount	Median Estimated Down Payment
Prehousing Boom Years (1999–2004)			
All Purchases	$332,100	$292,800	$25,400
Non-Hispanic White	$323,300	$281,250	$31,309
Latino	$335,430	$298,680	$20,979
Housing Boom Years (2005–7)			
All Purchases	$644,000	$594,720	$26,600
Non-Hispanic White	$616,000	$547,555	$52,218
Latino	$647,680	$603,750	$23,288

* Race/ethnicity imputed using the surname name list.
Source: Home Purchases Dataset – DataQuick Sales Records 1999–2007 (n = 10,907).

Not only did purchase prices go down, but also people's perception of home values went down. The median self-reported home value dropped significantly, steadily, and consistently from 2005 to 2011. The median home value has declined every year since its peak in 2005 (see Figure 10).

Figure 10 City of Downey Median Home Values (adjusted to 2011 dollars), 2005–11



Source: Census ACS 2005–2007, 2009–2011.

The change from 2005 to 2011 represents a more than $300,000 decrease in self-reported home value. There was less of a drop in self-reported median home value from 2009 to 2010, but this changed once again from 2010 to 2011, which experienced a greater decrease close to $90,000.

Housing Burden

Table 26 displays median household income-to-loan ratios by racial/ethnic groups and purchase period. This ratio was derived by imputing a purchaser's income (using the median income of owner-occupied households in each census tract) and dividing that number by the purchaser's total loan amount. While not ideal, this ratio is another indicator of housing burden. During the prehousing boom years, home purchasers' annual household incomes represented roughly 30 percent of their mortgages. In 2005–7, this figure shrank to approximately 15 percent. Ratios by racial/ethnic group are presented in Table 26.

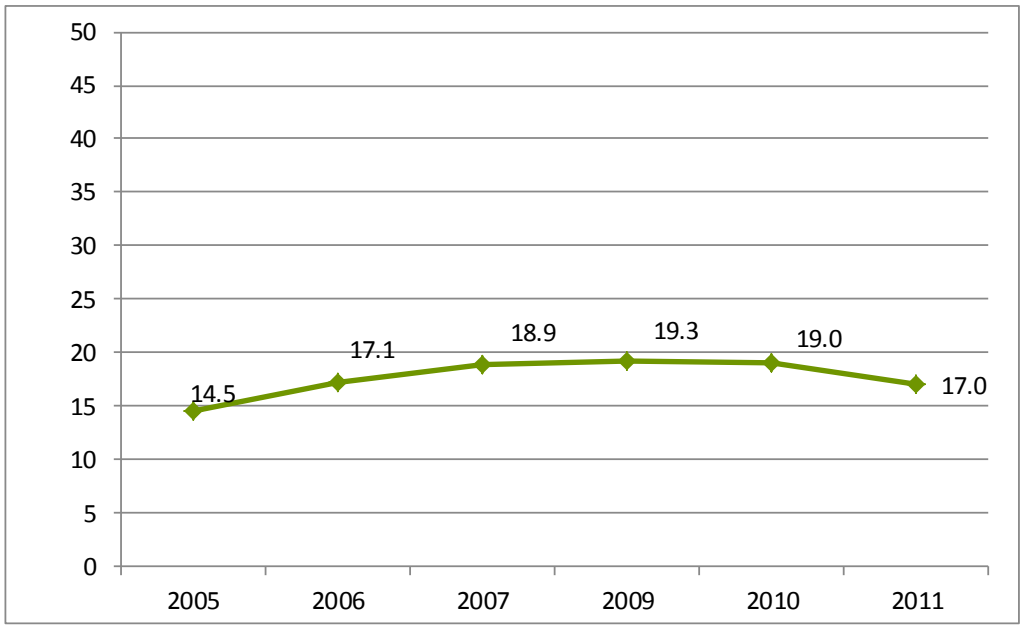
Table 26 Income-to-Loan Ratio by Race/Ethnicity* and Purchase Period in Downey, 1999–2007 (n = 10,459)

	All Purchases	Non-Hispanic White	Latino	Other Race
Prehousing Boom Years (1999–2004)	.275	.288	.269	.282
Housing Boom Years (2005–7)	.143	.160	.141	.151

* Race/ethnicity imputed using the surname name list.
Source: Home Purchases Dataset – DataQuick Sales Records 1999–2007 (n = 10,907).

Self-reported housing burden from ACS data shows that home burden remained fairly consistent across the time period with a peak in 2009, two years after the peak in homeownership (see Figure 11).

Figure 11 Downey Housing Burden, 2005–11



Notes: Housing burden is represented by the proportion of households that are paying more than 50 percent of their income toward housing.
Source: Census ACS, PUMS 2005–2007 and 2009–2011.

The percent of single-family homeowners with selected monthly costs that exceed 50 percent experienced a low of 14.5 percent in 2005 and has slowly increased overtime reaching its peak at 19.3 percent in 2009, and then slowly appears to be on the decline with 17 percent in 2011.

Home Loans

Estimated down payments offered a small glimpse into the type of loans that buyers in the Downey area used to purchase their homes. Whether buyers secured fixed or variable interest rate loans offers another perspective to the level of burden Downey home buyers acquired at purchase and over time. Unlike fixed rate loans, variable or adjustable rate loans can vary over time and are likely adjusted upward. Borrowers must in turn make higher monthly payments to remain in good standing. A number of housing analysts asserted that adjustable-rate mortgages (ARMs) contributed to a substantial number of defaults and foreclosures during the housing crisis.[4]

In the years leading up to the housing boom, approximately one of three (36 percent) first home loans had variable interest rates (see Table 27). Latino (38 percent) and other race (35 percent) buyers were slightly more likely to take ARMs when purchasing their homes during this period. By 2005–7, four of five mortgages in Downey had adjustable rates. During this period, the proportion of buyers with second loans also increased from 27 percent in 1999–2004 to 63 percent. Two-thirds (66 percent) of Latino buyers purchased their homes with a second loan compared to half (49 percent) of non-Hispanic white buyers.

Table 27 Characteristics of Loans Used to Purchase Homes by Race/Ethnicity* and Purchase Period in Downey, 1999–2007 (n = 10,459)

	All Purchases	Non-Hispanic White	Latino	Other Race
Prehousing Boom Years (1999–2004)				
First Loans with Variable Interest Rates	36.3%	31.3%	38.0%	35.2%
Buyers with Second Loans	27.4%	24.4%	28.9%	25.3%
Housing Boom Years (2005–7)				
First Loans with Variable Interest Rates	79.3%	70.7%	80.2%	80.0%
Buyers with Second Loans	63.1%	49.0%	65.5%	59.3%

* Race/ethnicity imputed using the surname name list.
Source: Home Purchases Dataset – DataQuick Sales Records 1999–2007 (n = 10,907).

[4] Kelly (2009).

Selected monthly costs have steadily increased in terms of the rate of homeowners paying more than 50 percent of their household income to housing costs. This maybe in part explained by the high rate of subprime loans among homeowners in Downey particularly for Latinos who make up the largest share of homeowners in the city.

Table 28 Downey Loans Originated, 1999–2007

	Preboom	Boom
Subprime	3%	29%
Latino	15%	33%
Non-Hispanic White	9%	20%
Other	1%	28%
Interest Rate	4.82	5.28
Latino	4.87	5.33
Non-Hispanic White	4.70	5.27
Other	4.79	5.06

Note: Preboom is the period between 1999-2004 and boom is the period between 2005-2007. Subprime loans are defined as those that are 3% and 5% over prime when the loan originated.
Source: HMDA 1999-2007

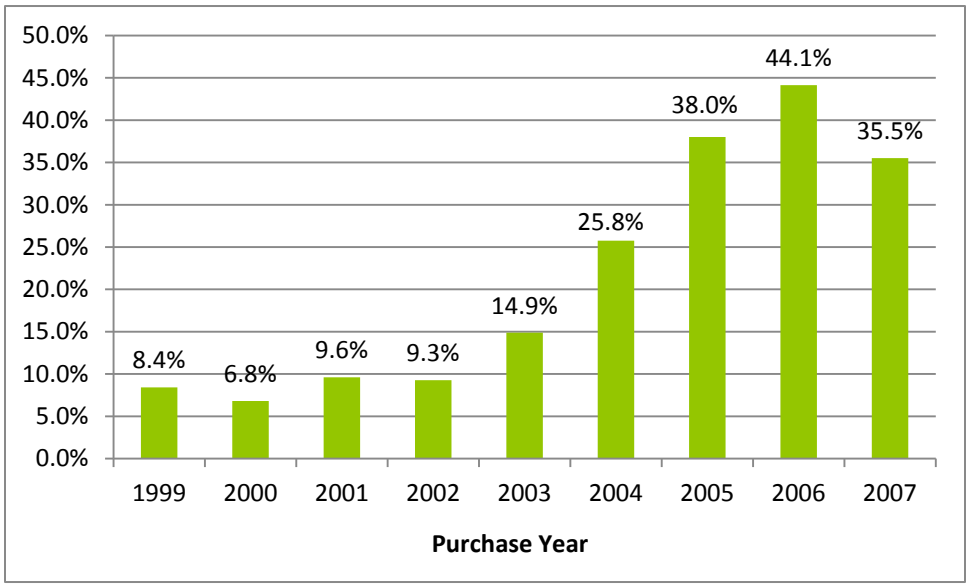
According to Table 28 the rate of homeowners receiving a subprime loan, defined as 3 percent or 5 percent over prime depending on whether it is the first or second lien, increased tremendously from the preboom period of 1999–2004 and the boom period between 2005 and 2007.

Notices of Default and Foreclosures

RAND estimates indicate the foreclosures of Downey single-family homes spiked in 2007 and continued at historic rates through 2011 (RAND 2012). Our analyses attempt to better understand loan default and foreclosures during this period for Latino homeowners and, where possible, compare those experiences with other racial/ethnic groups. Recall that a Merged Purchases, Defaults, and Foreclosures Dataset was created by identifying the latest purchase for each property from 1999 to 2007 and merging any recorded notices of defaults from 2006 to 2012 and foreclosures from 2007 to 2012 to the same properties. Through a surname match, home buyers were also categorized into racial/ethnic groups. Latinos and non-Hispanic whites made up the majority of purchases in the Downey case study area.

Of the 7,580 buyers who purchased a home in Downey from 1999 to 2007, 23 percent (1,715) received at least one NOD from 2006 to 2012. Parsing NOD rates by year of purchase offers a richer picture of defaults in the area. Figure 12 graphs the percent of buyers who received a NOD by year of purchase. For homeowners who purchased their homes in 1999–2002, less than 10 percent defaulted between 2006 and 2012. Default rates increased for owners who purchased in subsequent years and peaked in 2006. More than one out of three homeowners who purchased their homes in 2005–7 defaulted in following years. As many as 44 percent of owners who bought their homes in 2006 defaulted.

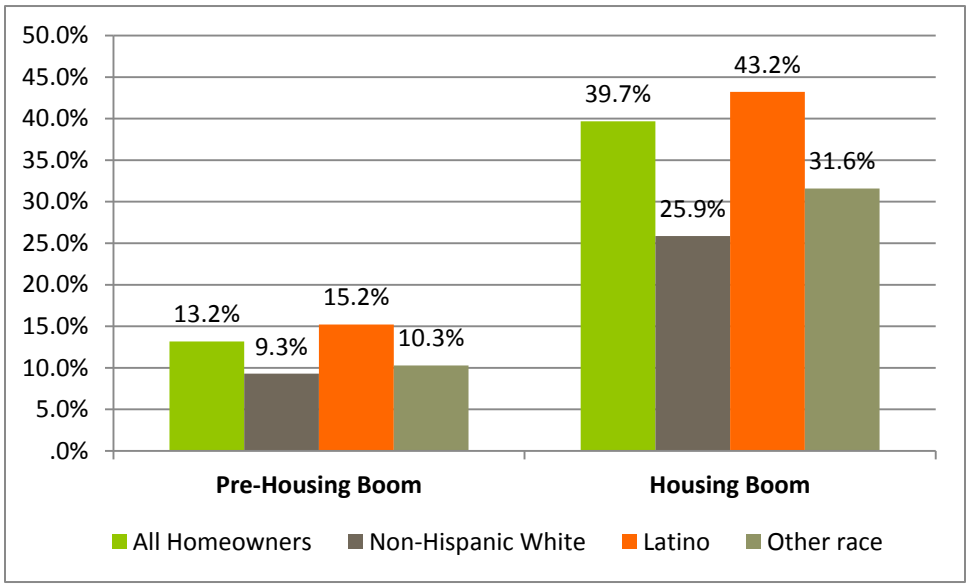
Figure 12 Percent of Downey Homeowners Who Received Notices of Default in 2006–12 by Purchase Year, 1999–2007 (n = 7,580)



Source: Merged Purchases, Defaults, and Foreclosures Dataset – DataQuick Sales Records 1999–2007, DataQuick Notices of Default Records 2006–2012, and DataQuick Foreclosures Records 2007–2012 (n = 7,580).

Latino owners, followed by other race owners, were more likely to default between 2006 and 2012 compared to non-Hispanic white homeowners and other racial/ethnic groups (see Figure 13). Fifteen percent of Latino buyers who purchased their homes in years leading up to the housing boom defaulted in 2006–12 compared to 9 percent of non-Hispanic white buyers. Among those who purchased their homes during the boom, Latino owners were significantly more likely to default in subsequent years than non-Hispanic white owners. Thirty-two percent of owners of another race who purchased their homes in 2005–7 defaulted years later. Overall, 41 percent of owners who received a NOD also foreclosed in 2007–12; the rate was 37 percent among non-Hispanic whites, 42 percent among Latinos, and 40 percent among buyers of another race.

Figure 13 Percent of Downey Homeowners Who Received Notices of Default in 2006–12 by Race/Ethnicity* and Purchase Period, 1999–2007 (n = 7,580)



* Race/ethnicity imputed using the surname name list.
Source: Merged Purchases, Defaults, and Foreclosures Dataset – DataQuick Sales Records 1999–2007, DataQuick Notices of Default Records 2006–2012, and DataQuick Foreclosures Records 2007–2012 (n = 7,580).

Owners who defaulted in the Downey area (n = 1,713) typically owed $17,000 to $18,000 upon receiving their first notice (see Table 29). Delinquent amounts didn't appear to vary much by purchase period or race/ethnicity.

Table 29 Median Delinquent Amounts (adjusted to 2011 dollars) for Downey Homeowners Who Received a Notice of Default in 2006–12 by Race/Ethnicity* and Purchase Period, 1999–2007 (n = 1,713)

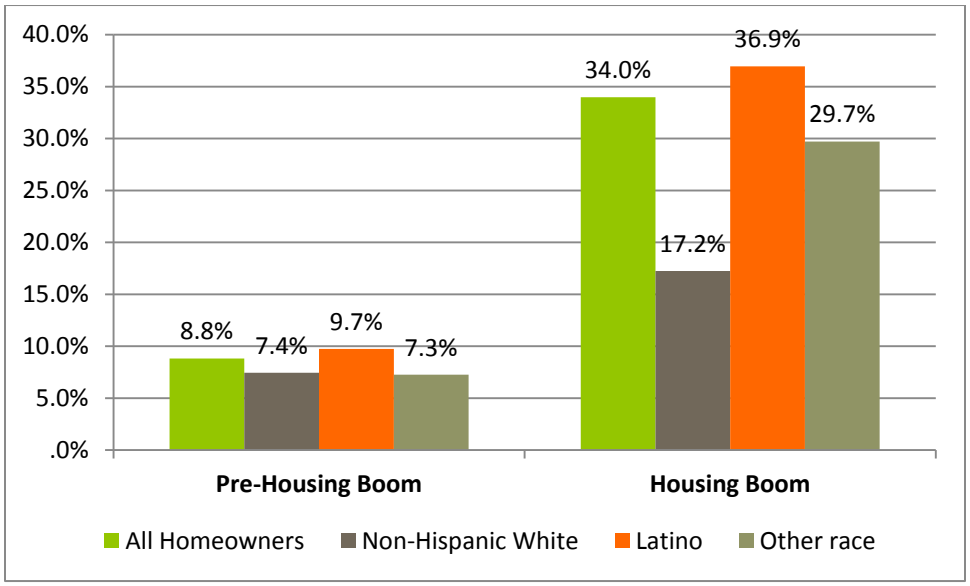
	All Homeowners	Non-Hispanic White*	Latino*	Other Race*
Prehousing Boom	$16,951	$18,100	$17,159	$16,308
Housing Boom	$18,051	$19,143	$17,889	$18,766

*Race/ethnicity imputed using the surname name list.
Source: Merged Purchases, Defaults, and Foreclosures Dataset – DataQuick Sales Records 1999–2007, DataQuick Notices of Default Records 2006–2012, and DataQuick Foreclosures Records 2007–2012.

In the Downey area, 18 percent (1,348) homeowners in our data set foreclosed between 2007 and 2012. Two-thirds of foreclosed homes in the area were purchased during the housing boom, from 2005 to 2007. Figure 14 illustrates that foreclosure rates between Latino and non-Hispanic white homeowners who purchased their homes in prehousing boom years were relatively comparable. Foreclosure rates increased for all groups who bought their homes in 2005–7. However, Latino buyers who purchased

during this period were two times more likely to foreclose than their non-Hispanic counterparts. More than one out of three (37 percent) Latino owners foreclosed in 2007–12.

Figure 14 Percent of Downey Homeowners Who Foreclosed Their Homes in 2007–12 by Race/Ethnicity* and Purchase Period, 1999–2007 (n = 7,580)



* Race/ethnicity imputed using the surname name list.
Source: Merged Purchases, Defaults, and Foreclosures Dataset – DataQuick Sales Records 1999–2007, DataQuick Notices of Default Records 2006–2012, and DataQuick Foreclosures Records 2007–2012 (n = 7,580).

Logistic regressions modeling foreclosures in 2007–12 suggest that regardless of loan type, sales price, and year of purchase, white homeowners were less likely to foreclose their homes compared to Latino owners (see Appendix A, Figure 44. This may be due to the disproportionately higher use of ARMs and subprime loans among Latinos in the area. As expected, higher-cost homes slightly increased odds of foreclosure, and larger down payments reduced the likelihood of foreclosure. Finally, the model supports previous observations that owners who purchased homes prior to 2005, before the housing boom, were less likely to foreclose their homes. By contrast, homeowners who purchased their homes in 2006 were 146 percent more likely to foreclose compared to those who bought in 2005. Owners who purchased in 2006 appear to have been most at risk of foreclosure in subsequent years.

Summary and Observations

Home prices in Downey bubbled to historic levels from 2003 to 2007. More people also bought homes during this period than in earlier years. At the same time, purchasing patterns also significantly shifted. The proportion of owners who took out variable interest loans doubled to 79 percent, which placed a large majority of recent homeowners at higher risk for mortgage increases. Subprime loans, which were rare prior to the housing boom, represented 29 percent of originated loans from 2005 to 2007. This suggests that more people with limited debt experience, excessive debt, and/or few assets were able to secure loans when home prices were at their highest.

Downey homeowners who purchased during the housing boom also saw their home values plummet in a short period of time. The median loan amount for homes purchased during the boom was approximately $600,000, but by 2011, the median self-reported home value declined to $350,000. In as little as four years, many homeowners who purchased during the boom saw their homes and mortgages go underwater. They owed more than their houses were worth.

In addition to taking out riskier and larger loans, Downey residents who bought during the housing boom also placed proportionally smaller down payments compared to earlier purchasers. In turn, many of these owners had little equity when home prices plummeted after 2007 and mortgages became underwater. At the same time, the economic recession also started to pick up, so those who were unable to make their mortgage payments may have had few options or incentives to delay foreclosure.

Rapid rise and collapse of home prices leading to underwater mortgages and high variable interest and subprime loans characterized the Downey housing market during the housing boom. These factors also appeared to have driven high rates of foreclosures in the years following the boom. The magnitude of this impact, as observed in foreclosure rates, varied across racial/ethnic groups. For example, although subprime lending doubled during the housing boom across all groups, Latino owners disproportionately secured subprime loans (33 percent) compared to non-Hispanic white owners (20 percent). The same can be said about variable interest loans or ARMs. Furthermore, Latino home buyers historically placed smaller down payments as a percentage of the purchase price than did non-Hispanic whites, but this proportion decreased during the housing boom among Latinos, at times when home prices were highest. As a result, Latino owners who purchased during this period faced a higher risk for default and foreclosure.

HOMEOWNERSHIP AND FORECLOSURES IN GLENDALE

Homeownership

Table 30 shows that homeownership in Glendale was highest among non-Hispanic white residents (32 percent), followed by Asian American residents (29 percent). Interestingly, these rates did not change during and after the housing boom. Homeownership among Latino residents slightly increased following the boom.

Table 30 Glendale Homeownership Rates during and after the Housing Boom

	Total	Latino	Non-Hispanic White	Asian	Other Race
Housing Boom (2005–7)	39.3%	22.8%	31.7%	29.1%	21.3%
Posthousing Boom (2009–11)	39.3%	24.7%	31.7%	29.4%	17.1%

Source: Census ACS, PUMS 2005–2007 and 2009–2011.

Among homeowners in the city, non-Hispanic whites make up the majority of homeowners (see Table 31). This proportion is even greater than their share of the overall total population. Homeowners are overwhelmingly more highly educated in Glendale with more than 54.1 percent holding a bachelor's degree or higher in 2005–7.

Table 31 Glendale Homeowner Characteristics

	2005-2007	2009-2011
Latino	12.2%	11.4%
Non-Hispanic Whites	71.9%	72.4%
Asians	13.6%	14.4%
Other	2.2%	1.8%
BA degree or higher	54.1%	55.5%
Unemployed	2.1%	3.7%
Foreign born	44.7%	46.7%
= < 10 years in US	3.1%	3.7%
Speaks English Well	41.2%	53.2%
Mean Personal Income	81,814	77,296
Mean Household Income	133,295	126,475

Note: All income adjusted to 2011 dollars.
Source: Census ACS, PUMs 2005-2007 and 2009-2011.

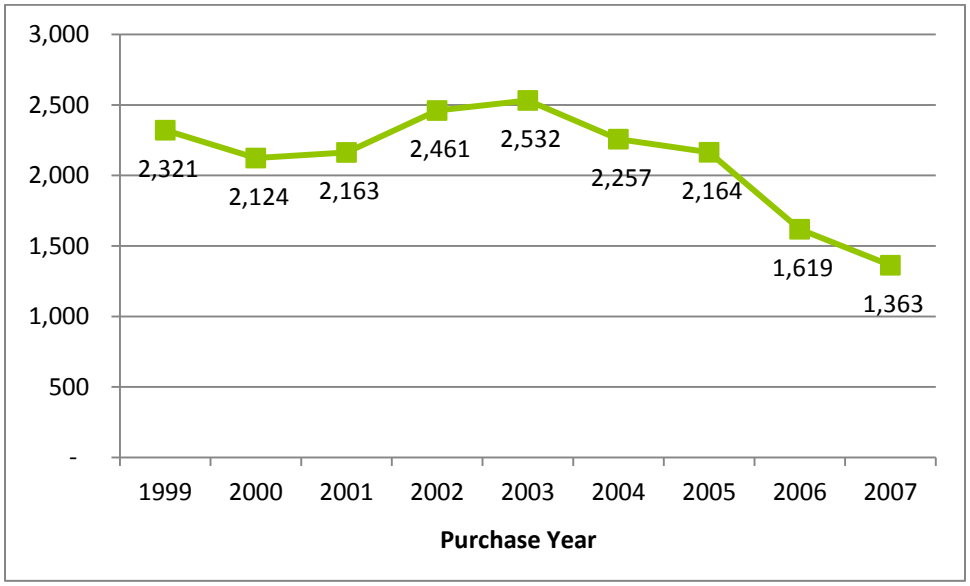
The overall homeownership rate in Glendale, excluding condominiums owned, peaked in 2007 but has stayed relatively steady over the period of six years. The homeownership rate peaked in 2007 at 31.6 percent. Results from the regression model are consistent with many of the variables we know impact homeownership from prior research including education, immigration status, marital status, income, age, number of children, and race. These variables were all found to be statistically significant at a $p <$ .05 level. Having more education increases the likelihood of being a homeowner as do being native born, being in the United States longer, speaking better English, being older, and having more children.

Homeownership model results also indicate that race does play a significant role in determining homeownership (see Appendix A, Figure 44). Being Latino compared to other races, as well as non-Hispanic white compared to other races, makes one more likely to own a home in Glendale. This finding was highly statistically significant at the .001 p value level. Findings for being Asian relative to other races also shows that being Asian has a positive effect on homeownership. This finding was statistically significant at the .05 p value level. We also tested the model using race and year interaction terms in the model. This resulted in only one statistically significant finding—that being non-Hispanic white (versus "Other Race") increased the likelihood that one owns a home (see Appendix A, Figure 45).

Home Purchases

The trajectory of home purchases in Glendale fluctuated slightly from 1999 to 2005, before declining in 2006 and then again in 2007 (see Figure 15). Home purchases in the area reached its highest level in 2003; more than 2,500 homes were sold that year. This figure represented a 9 percent increase in home sales compared to the number sold in 1999 (n = 2,321), so Glendale did not experience the same marked increase in home purchases as seen in other areas of the county. Much like the rest of the county, home purchases did fall in 2006 and continued to decrease to 1,363 purchases in 2007.

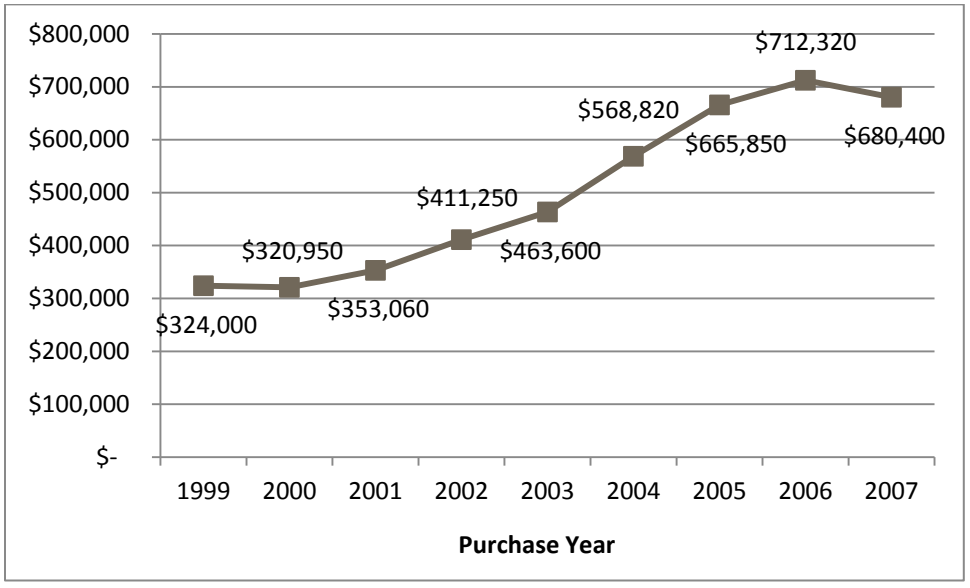
Figure 15 Number of Home Purchases in Glendale in 1999–2007 by Purchase Year (n = 19,004)



Source: Home Purchases Dataset – DataQuick Sales Records 1999–2007 (n = 19,004).

Unlike home purchases, median purchase prices rose at increasing rates from 1999 to 2004 (see Figure 16). In a six-year period, prices skyrocketed and continued to increase to its highest level at $712,000 in 2006. Purchase prices slightly declined in 2007, one year earlier than countywide prices.

Figure 16 Median Purchase Prices (adjusted to 2011 dollars) in Glendale from 1999–2007 (n = 18,268)



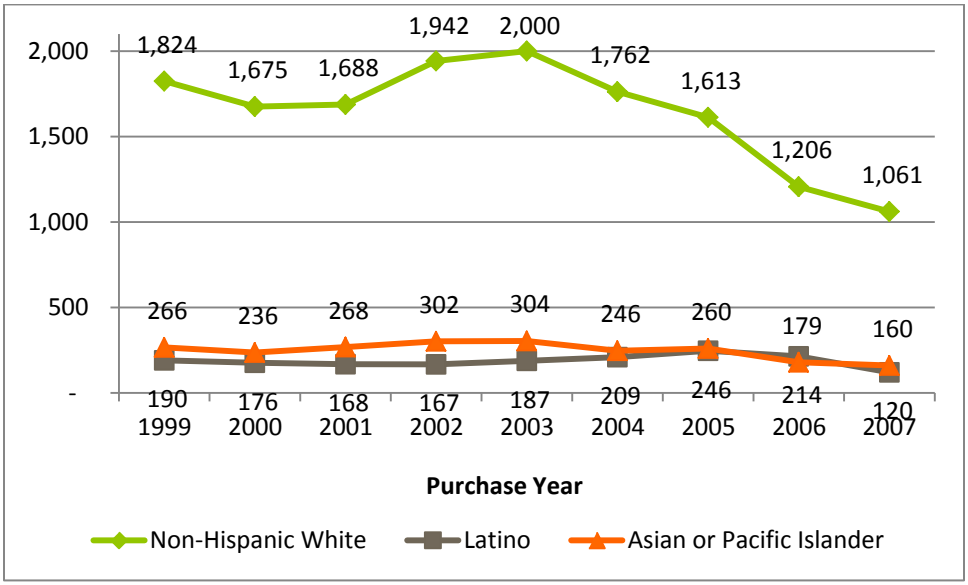
Source: Home Purchases Dataset – DataQuick Sales Records 1999–2007.

Non-Hispanic whites made up a substantial majority (78 percent) of home buyers in Glendale from 1999 to 2007. The second largest but much smaller group of buyers was API. This population represented 12 percent of purchases during this period. Finally, Latino home buyers represented 9 percent or 1,677 of

purchases. The following sections report race-specific data using three to four categories: non-Hispanic white, Latino, APIs, and other race (which includes African Americans).

Figure 17 charts the number of purchases made by three racial/ethnic groups from 1999 to 2007. Although home purchases among APIs and Latinos slightly wavered, the number of home purchases by non-Hispanic white buyers rose and fell more substantially. Home purchases among this population were at its highest in 2002 and 2003, but by 2006, dropped to half at 1,061.

Figure 17 Number of Home Purchases in Glendale by Race/Ethnicity* and Purchase Year, 1999–2007 (n = 18,667)**



* Race/ethnicity imputed using the surname name list.

** 335 records of home purchases by buyers of "Other Race" were excluded from the chart.

Source: Home Purchases Dataset – DataQuick Sales Records 1999–2007.

The typical home purchased in Glendale had three bedrooms and two bathrooms and was 1,431 square feet in size (see Table 32). Homes purchased by Latinos tended to be smaller, had two bedrooms rather than three, and were slightly older than typical homes purchased during this period. By contrast, homes purchased by APIs were built more recently than the typical home purchased during this period. Half of API buyers purchased homes built after 1978.

Table 32 Characteristics of Homes Purchased in Glendale 1999–2007 by Race/Ethnicity*

Median	All Purchases	Non-Hispanic White	Latino	Asian or Pacific Islander	Other Race
Lot Size (n = 18,998)	9,332	9,366	7,967	10,034	10,488
Baths (n = 18,976)	2	2	2	2	2
Beds (n = 18,946)	3	3	2	3	3
Square Feet (n = 19,001)	1,431	1,452	1,236	1,440	1,465
Year Home Built (n = 19,001)	1960	1957	1951	1978	1980

* Race/ethnicity imputed using the surname name list.
Source: Home Purchases Dataset – DataQuick Sales Records 1999–2007 (n = 19,004).

Home Prices

As shown earlier, median home purchase prices for Glendale homes were greatest in 2005–7. These years are also known as the housing boom period. Table 33 lists median home purchase prices during the prehousing boom and housing boom periods for each racial/ethnic group. Prior to the housing boom, the median purchase price for a home in Glendale was approximately $400,000. Homes bought by Latinos were typically smaller than most homes bought in Glendale, and were generally lower in cost compared to those purchased by other buyers. During the housing boom, median purchase prices exceeded $600,000. Non-Hispanic white buyers paid the highest median purchase price compared to other groups at $710,000.

After summing the total loan amount information for each purchase record, we estimated the total amount buyers placed as a down payment by subtracting total loan amount from purchase price. Median down payments among Latino buyers were lowest compared to other racial/ethnic groups in the prehousing boom and housing boom periods. Furthermore, while median purchase prices increased 75 percent within this group, median down payment decreased from nearly $30,000 during the prehousing boom to $26,000 during the boom. At both time periods, API and “Other Race” buyers had the highest median down payments and therefore lower total loans than non-Hispanic white buyers.

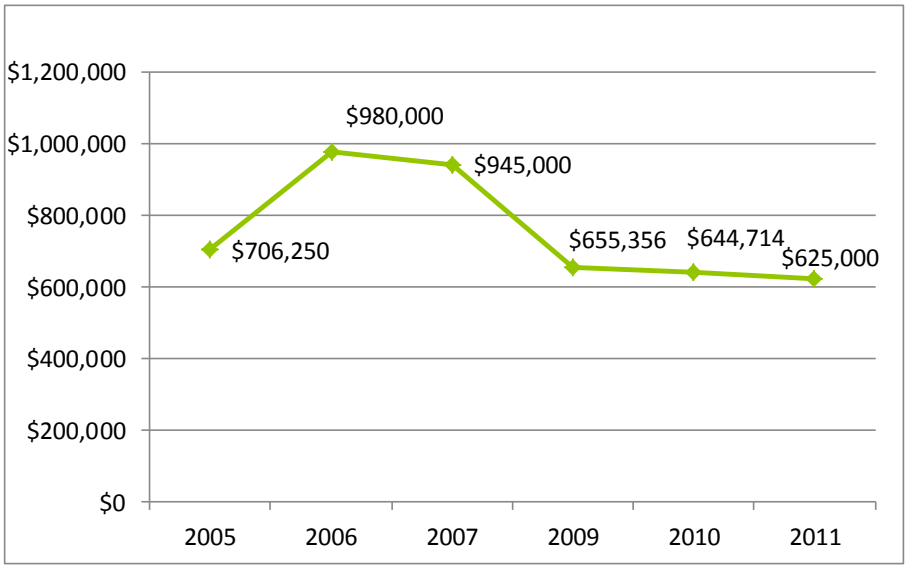
Table 33 Purchase Price, Loan Amounts, and Down Payments (adjusted to 2011 dollars) for Homes Purchased in Glendale by Race/Ethnicity* and Purchase Period, 1999–2007

	Median Purchase Price	Median Loan Amount	Median Estimated Down Payment
Prehousing Boom Years (1999–2004)			
n =	13,391	12,545	12,545
All Purchases	$405,000	$339,150	$53,325
Non-Hispanic White	$412,650	$345,600	$54,000
Latino	$358,140	$321,300	$29,500
Asian or Pacific Islander	$396,500	$325,292	$62,230
Other Race	$373,125	$310,938	$72,643
Housing Boom Years (2005–7)			
n =	4,877	4,696	4,696
All Purchases	$685,800	$581,671	$65,535
Non-Hispanic White	$709,560	$603,715	$69,000
Latino	$626,750	$558,750	$26,019
Asian or Pacific Islander	$626,750	$510,720	$71,875
Other Race	$698,300	$569,480	$88,550

* Race/ethnicity imputed using the surname name list.
Source: Home Purchases Dataset – DataQuick Sales Records 1999–2007 (n = 19,004).

In Figure 18 we see that self-reported median home value peaked in 2006 at $980,000 and has been steadily declining since with its lowest value level in 2011 at $625,000. While this median home value is relatively high compared to the county average, the drop from the peak in 2006 to 2011 represents more than $300,000, a notable amount.

Figure 18 Glendale Median Home Values (adjusted to 2011 dollars), 2005–11



Source: Census ACS, PUMS 2005–2007 and 2009–2011.

Housing Burden

Table 34 displays median household income-to-loan ratios by racial/ethnic groups and purchase period. This ratio was derived by imputing a purchaser's income (using the median income of owner-occupied households in each census tract) and dividing that number by the purchaser's total loan amount. While not ideal, this ratio is one indicator of housing burden. During the prehousing boom years, home purchasers' annual household incomes represented roughly 27 percent of their mortgages. In 2005–7, this figure shrank to approximately 16 percent. Ratios by racial/ethnic group are presented in Table 34.

Table 34 Income-to-Loan Ratio by Race/Ethnicity* and Purchase Period in Glendale, 1999–2007 (n = 17,944)

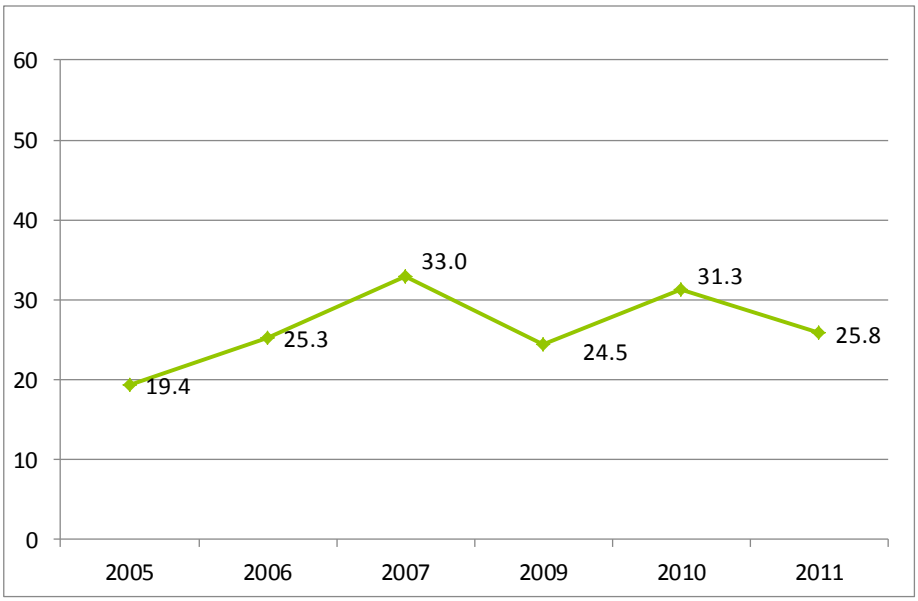
	All Purchases	Non-Hispanic White	Latino	Asian or Pacific Islander	Other Race
Prehousing Boom Years (1999–2004)	.272	.270	.273	.287	.286
Housing Boom Years (2005–7)	.158	.157	.177	.168	.158

* Race/ethnicity imputed using the surname name list.
Source: Home Purchases Dataset – DataQuick Sales Records 1999–2007.

The rate of housing burden or selected monthly owner costs as percent of household income went down for blacks and others, but increased slightly for Latinos.

Unlike homeownership rates, housing burden (percent of income going toward housing) has seen more fluctuation with a steady increase in burden from 2005 to 2007 during the housing market boom to the drop from 2007 to 2009 (see Figure 19). Housing burden then went back up from 2009 to 2010 and then slightly down again in 2011. The lowest portion of Glendale homeowners with housing burden was actually in 2005 at the height of the housing boom.

Figure 19 Glendale Housing Burden, 2005–11



Notes: Housing burden is represented by the proportion of households that are paying more than 50 percent of their income toward housing.
Source: Census ACS, PUMS 2005–2007 and 2009–2011.

Home Loans

Estimated down payments offer one potential explanation for the rise in defaults or foreclosures in subsequent years. Another probable factor is the prevalence of home loans with variable interest or ARMs among buyers. Homeowners with ARMs face more uncertainty in their ability to make payments as interest rates are adjusted upward by lending institutions. From 1999 to 2004, roughly two of five homes were purchased with variable interest loans (see Table 35). This proportion jumped to 72 percent during the 2005–7 housing boom period. The rate of variable interest loans did not significantly vary across racial/ethnic groups.

The fraction of home buyers who secured a second loan for their homes, however, did differ by race/ethnicity. In both periods, APIs and “Other Race” buyers were significantly less likely to take out second loans at the time of purchase than other racial/ethnic groups. Latino buyers were most likely to secure second loans. Overall, the proportion of buyers who had second loans doubled from 32 percent to 62 percent between the prehousing boom and housing boom periods.

Table 35 Characteristics of Loans Used to Purchase Homes by Race/Ethnicity* and Purchase Period in Glendale, 1999–2007 (n = 17,944)

	All Purchases	Non-Hispanic White	Latino	Asian or Pacific Islander	Other Race
Prehousing Boom Years (1999–2004)					
First Loans with Variable Interest Rates	40.9%	40.7%	39.6%	43.1%	43.6%
Buyers with Second Loans	31.7%	32.5%	36.7%	24.7%	19.7%
Housing Boom Years (2005–7)					
First Loans with Variable Interest Rates	71.5%	70.7%	74.3%	72.3%	81.9%
Buyers with Second Loans	60.5%	60.6%	68.8%	53.3%	51.8%

* Race/ethnicity imputed using the surname name list.

Source: Home Purchases Dataset – DataQuick Sales Records 1999–2007.

Table 36 displays the high level of burden that some households are experiencing maybe due to the level of subprime lending between 2005 and 2007. Non-Hispanic whites make up the largest proportion of homeowners in Glendale, and they have the lowest rate of subprime loans compared to other races during the boom period.

Table 36 Glendale Loans Originated, 1999–2007

	Preboom	Boom
Subprime	1.2%	16.3%
Non-Hispanic White	5.4%	12.4%
Latino	8.7%	25.9%
Asian	2.0%	23.6%
Other	2.0%	27.4%
Interest Rate	4.99	5.17
Non-Hispanic White	5.06	5.03
Latino	4.74	5.30
Asian	4.74	5.33
Other	5.57	5.21

Notes: Preboom is the period between 1999-2004 and boom is the period between 2005-2007. Subprime loans are defined as those that are 3% and 5% over prime when the loan originated.

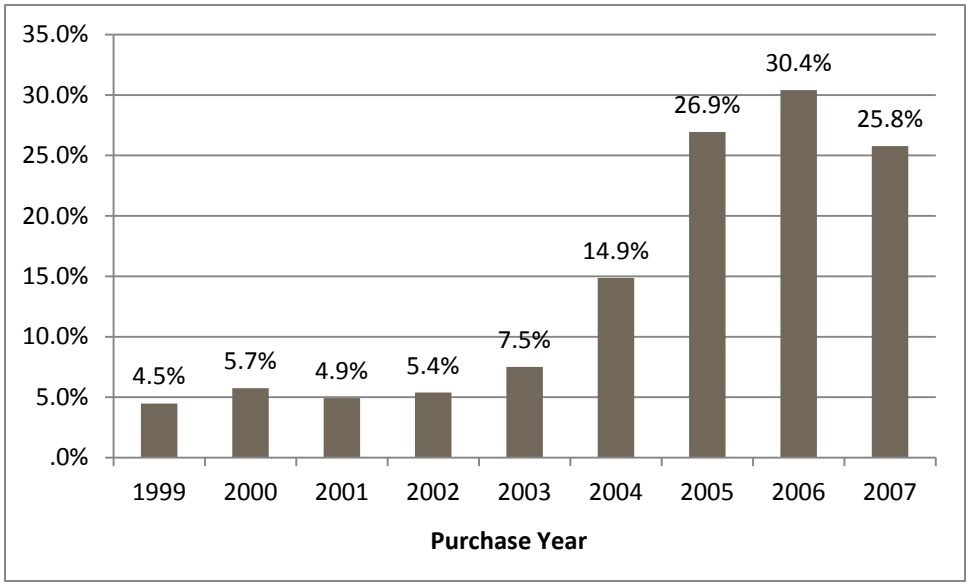
Source: HMDA 1999-2007

Latinos and Asians in Glendale during the boom period experienced high levels of subprime loans with more than 20 percent of all loans originating being subprime. Interest rates went up from preboom to boom, but only for Latinos and Asians in Glendale.

Notices of Default and Foreclosures

Of the 13,028 buyers who purchased a home in Glendale from 1999 to 2007, 14 percent (1,878) received at least one NOD from 2006 to 2012. However, two-thirds (66 percent) of these owners purchased their homes during the housing boom, from 2005 to 2007. Figure 20 graphs the percent of buyers who received a NOD by year of purchase. For homeowners who purchased their homes in 1999–2002, no more than 6 percent of those buyers defaulted between 2006 and 2012. Among owners who purchased their homes in 2005–7, at least one of four defaulted in the following years. Owners who bought in 2006 were most likely to default compared to those who purchased in other years.

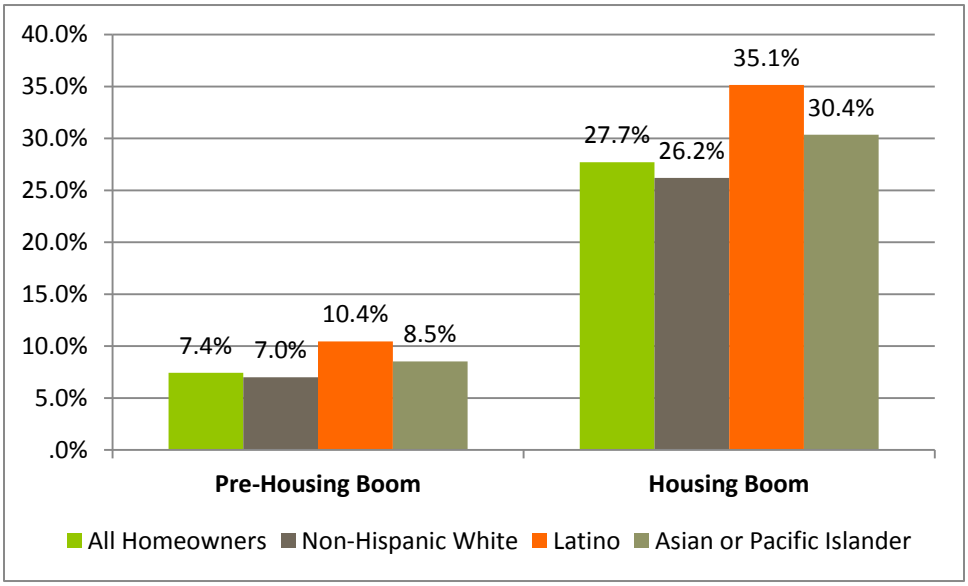
Figure 20 Percent of Glendale Homeowners Who Received Notices of Default in 2006–12 by Purchase Year, 1999–2007 (n = 13,028)



Source: Merged Purchases, Defaults, and Foreclosures Dataset – DataQuick Sales Records 1999–2007, DataQuick Notices of Default Records 2006–2012, and DataQuick Foreclosures Records 2007–2012 (n = 13,028).

Analyses by race/ethnicity indicate that notices of default rates in Glendale were relatively comparable across racial/ethnic groups, with the exception of Latino owners (see Figure 21). This group had slightly higher rates for homes purchased during prehousing boom and housing boom periods. Figure 21 also illustrates that owners who purchased their homes during the housing boom were three to four times more likely to default on their loans.

Figure 21 Percent of Glendale Homeowners Who Received Notices of Default in 2006–12 by Race/Ethnicity* and Purchase Period, 1999–2007 (n = 13,018)**



* Race/ethnicity imputed using the surname name list.

** 10 homeowners of another race were excluded

Source: Merged Purchases, Defaults, and Foreclosures Dataset – DataQuick Sales Records 1999–2007, DataQuick Notices of Default Records 2006–2012, and DataQuick Foreclosures Records 2007–2012.

Among those who were delinquent in their payments, the average amount delinquent was slightly higher during the housing boom opposed to before; $15,158 prehousing boom compared to $16,914 during the boom (see Table 37). Interesting enough, the median delinquent amount by race showed that while non-Hispanic Whites and Latino median delinquent amounts went up, Asian or Pacific Islander median amounts went down. However, it should be noted that Asian or Pacific Islander median delinquent amounts during the prehousing boom exceeded that of all racial groups and homeowners.

Table 37 Median Delinquent Amounts (adjusted to 2011 dollars) for Glendale Homeowners Who Received a Notice of Default in 2006–12 by Race/Ethnicity* and Purchase Period, 1999–2007 (n = 1,876)

	All Homeowners	Non-Hispanic White	Latino	Asian or Pacific Islander
Prehousing Boom	$15,158	$15,032	$14,912	$16,026
Housing Boom	$16,914	$17,500	$15,882	$15,484

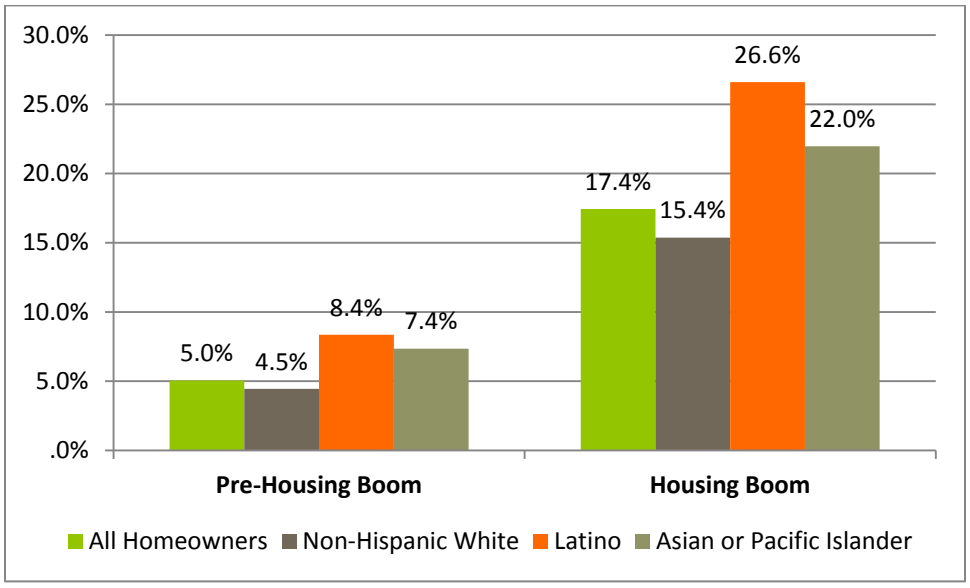
* Race/ethnicity imputed using the surname name list.

Source: Merged Purchases, Defaults, and Foreclosures Dataset – DataQuick Sales Records 1999–2007, DataQuick Notices of Default Records 2006–2012, and DataQuick Foreclosures Records 2007–2012.

More than 1,200 owners in our merged data set foreclosed their homes from 2007 to 2012. Overall, 9 percent of owners who purchased a home in the Glendale area from 1999 to 2007 foreclosed in the following years. The majority (64 percent) of these foreclosures belonged to owners who purchased

their homes during the housing boom, and owners who purchased during this period, regardless of their race/ethnicity, were three times more likely to foreclose than those who purchased earlier (Figure 22). Latino owners, followed by API owners, were most likely to foreclose regardless of purchase period. However, 70 percent of foreclosed homes in this area belonged to non-Hispanic white owners.

Figure 22 Percent of Glendale Homeowners Who Foreclosed Their Homes in 2007–12 by Race/Ethnicity* and Purchase Period, 1999–2007 (n = 13,028)



* Race/ethnicity imputed using the surname name list.
Source: Merged Purchases, Defaults, and Foreclosures Dataset – DataQuick Sales Records 1999–2007, DataQuick Notices of Default Records 2006–2012, and DataQuick Foreclosures Records 2007–2012 (n = 13,028).

Logistic regression results displayed in Table 55 support the preceding observations that, all else constant, Latino and Asian homeowners were more likely to foreclose their homes in 2007–12 than non-Hispanic white owners. These groups also had roughly two times the rates of subprime loan use, which was not captured in the model. Latino owners were 1.6 times more likely to foreclose their homes compared to non-Hispanic whites. Asian owners were 1.7 times more likely. Higher-priced homes increased odds of foreclosure, while greater down payments reduced the likelihood of foreclosure in the area. Regardless of race, purchase price, or down payment amount, owners who purchased their homes in 2006 were more likely to foreclose compared to owners who purchased in earlier years.

Summary and Observations

Home prices in Glendale increased rapidly from 1999 to 2006, but unlike other neighborhoods in Los Angeles County, home purchases did not substantially rise during this period and began to decline in 2003. So by 2005–7, when home prices were highest, fewer people were purchasing homes compared to all other years in this nine-year period. Owners who purchased their homes during the housing boom overall faced greater uncertainty and took higher risks than owners who bought their homes in previous

years. These homeowners more often financed their homes through variable interest loans as well as second loans, and subprime lending, which was very rare in earlier years, increased to 16 percent of loan originations during the housing boom.

These observations help explain higher rates of default and foreclosure among homes purchased from 2005 to 2007, and echo findings from other studies that explored causes of the foreclosure crisis. However, the impact of foreclosures in the Glendale case study area appear to have been diffused and less severe compared to other areas. One possible explanation is the financial stability and wealth of home buyers who bought during the housing boom. The median down payment for home purchases in this area was $53,000 from 1999 to 2004 and $66,000 from 2005 to 2007, therefore many buyers initially invested a substantial amount of income and wealth into their purchases. Higher down payments also suggest buyers had a certain level of wealth prior to purchasing their homes, which could have helped owners weather through the economic recession.

Furthermore, self-reported home values during the housing boom and collapse suggest that homeowners in this area believed their homes were worth significantly more than sale prices. So owners may not have had or perceived underwater mortgages, which were common in other communities. Finally, although variable interest and subprime lending increased during the housing boom, the prevalence of these practices was also not as high compared to other communities.

As observed in other communities, Latino home buyers and owners in the Glendale area faced higher default and foreclosure rates than their non-Hispanic white counterparts. These buyers were more likely to take out subprime and second loans. Approximately one-fourth of loans originated with Latinos during the housing boom subprime. More notably, the median down payment among Latino home purchasers was $20,000 less than the median for all buyers. This amount also decreased during the housing boom, when housing prices were highest. This might suggest that the credit and wealth profiles of Latinos who purchased prior and during the housing boom are different.

HOMEOWNERSHIP AND FORECLOSURES IN INGLEWOOD

Homeownership

Overall, homeownership rates did not change during and after the housing boom for all Inglewood households (see Table 38). Race-specific homeownership rates do indicate that ownership among Latino residents dropped following the housing boom, while the homeownership rate for African American residents increased.

Table 38 Inglewood Homeownership Rates during and after the Housing Boom

	Total	Black	Latino	Other Race
Housing Boom (2005–7)	36.4%	24.7%	26.0%	34.6%
Posthousing Boom (2009–11)	36.5%	27.3%	24.9%	36.9%

Source: Census ACS, PUMS 2005–2007 and 2009–2011.

Homeowners in Inglewood are predominantly black, despite Latinos representing more of the overall total population. They are a fairly educated population with more than a quarter holding a bachelor's degree or higher and with a median household income that exceeds that county median for both time periods. Homeowners are mostly native born, and among those that are foreign born, a significant proportion speaks English well.

Table 39 shows that homeowner characteristics remained fairly constant over the two time periods with the exception of median household income going up, with personal income going down slightly. Also, the proportion of homeowners that were black increased by five percentage points from 2005–7 to 2009–11. In comparison, Latinos represented a lower proportion of homeowners in 2009–11 compared to 2005–7—falling from 37.2 percent to 32 percent.

Table 39 Inglewood Homeowner Characteristics

	2005–2007	2009–2011
Black	50.1%	55.8%
Latino	37.2%	32.0%
Other	12.7%	12.2%
BA Degree or Higher	26.1%	26.6%
Unemployed	1.0%	2.8%
Foreign Born	37.0%	34.6%
= < 10 years in US	0.9%	0.3%
Speaks English Well	28.7%	26.3%
Median Personal Income	39,550	37,883
Median Household Income	65,880	77,280

Note: All income adjusted to 2011 dollars.
Sources: Census ACS, PUMs 2005-2007 and 2009-2011.

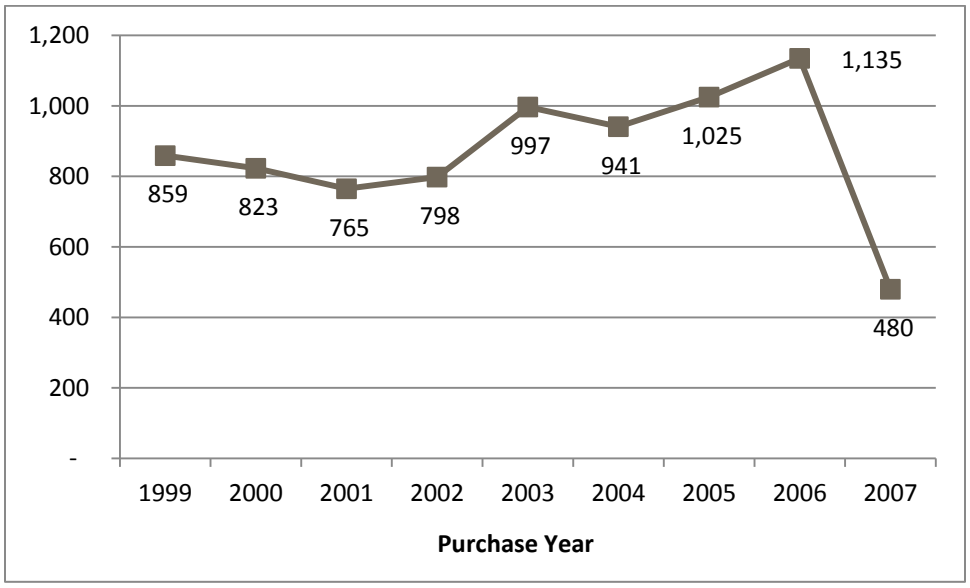
The findings from the regression model for homeownership in Inglewood are somewhat consistent with what we know about the influences of homeownership (see Appendix A, Figure 46). Having less than a high school education resulted in a lower likelihood of owning a home. This finding is statistically significant at the $p < .05$ level. In contrast, while having a bachelor's degree or more slightly increased the odds of owning a home, this finding was not statistically significant at the $p < .05$ level. Being a newer immigrant lowered the likelihood of owning a home greatly, and this finding was statistically significant at the $p < .05$ level. Other immigrant related variables included in the model did not have a statistically significant effect (see Appendix A, Figure 46).

Being black compared to other races in Inglewood as well as being Latino compared to other races (which includes non-Hispanic whites) made one less likely to own a home in Inglewood. However, this finding was statistically at the $p < .10$ level for blacks only. In contrast to the other study areas in Inglewood, the year appeared to have some effect on homeownership, but this was found to be statistically significant only for 2007. Interestingly enough, the years 2005, 2006, 2007, 2009, and 2010 all had the effect of lowering the odds of being a homeowner. Again this finding was only statistically significant for 2007. Moreover, a model tested that included an interaction for race and year produced statistically significant findings for Latinos, but not for blacks in Inglewood. In addition, a model that included the interaction between race and year also showed that being Latino compared to the other race in Inglewood would reduce the likelihood of being a homeowner, and this finding was statistically significant at the $p < .05$ level.

Home Purchases

Home purchases in the Inglewood case study area gradually declined from 1990 to 2001 before slightly increasing in 2002 and rising steeply in 2003 (see Figure 23). Home purchases in this area continued to increase and reached a high with 1,135 purchased homes in 2006. The following year, home purchases plummeted to its lowest level in the nine-year period. Only 480 single-family homes or condos were purchased in 2007.

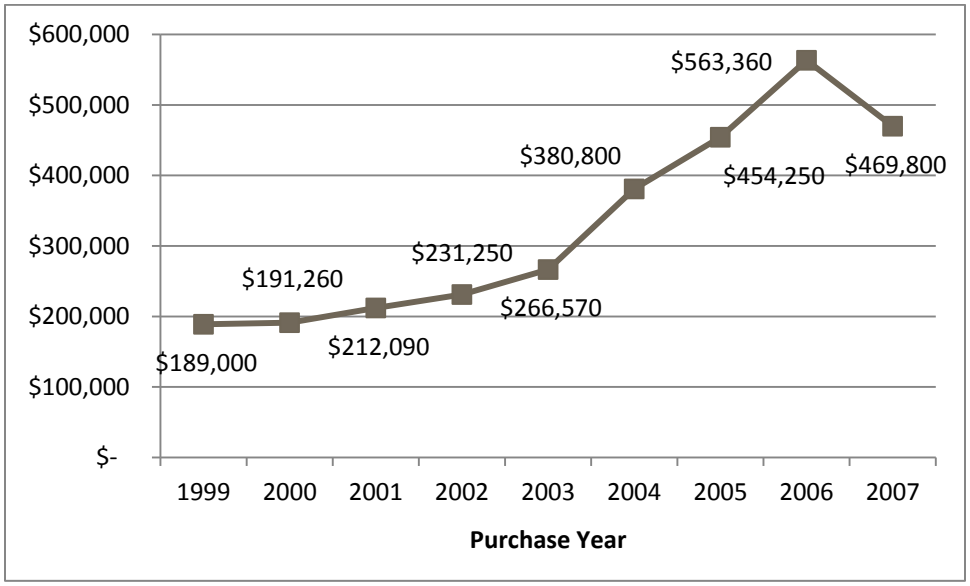
Figure 23 Number of Home Purchases in Inglewood in 1999–2007 by Purchase Year (n = 7,823)



Source: Home Purchases Dataset – DataQuick Sales Records 1999–2007 (n = 7,823).

Between 2000 and 2003, median purchase prices in this case study area steadily rose between 8 percent and 13 percent from one year to the next (see Figure 24). Starting in 2004, median purchase price increased 30 percent from the previous year to $381,000. Prices continued to rise to its highest point in 2006. The median purchase price that year was $563,000. By 2007, the median purchase price had decreased by 20 percent and continued to decline in the following years (according to RAND estimates).

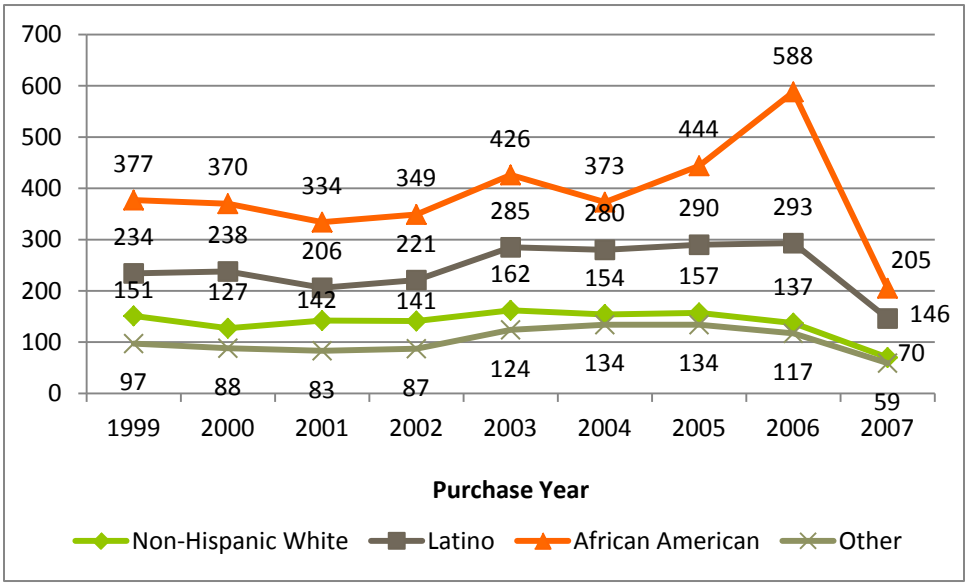
Figure 24 Median Purchase Prices (adjusted to 2011 dollars) in Inglewood, 1999–2007 (n = 7,315)



Source: Home Purchases Dataset – DataQuick Sales Records 1999–2007.

Figure 25 charts the number of purchases made by four racial/ethnic groups from 1999 to 2007. African Americans, followed by Latinos, purchased the most homes in this case study area across all years. Of the 7,823 home purchases made during this period, African Americans purchased 44 percent of these homes, Latinos purchased 28 percent, and non-Hispanic whites purchased 16 percent of homes. Between 1999 and 2004, the fraction of homes purchased by each racial/ethnic group remained relatively constant. However, in 2005 and 2006, home purchases by African Americans substantially increased while purchases by other groups leveled or declined. Home purchases by all groups reached their lowest levels in 2007.

Figure 25 Number of Home Purchases in Inglewood by Race/Ethnicity* and Purchase Year, 1999–2007 (n = 7,823)



* Race/ethnicity imputed using the surname name list.
Source: Home Purchases Dataset – DataQuick Sales Records 1999–2007 (n = 7,823).

The typical home purchased in Inglewood had two bedrooms and two bathrooms and was approximately 1,200 square feet in size (see Table 40). However, variations in the types of homes purchased also varied by the race or ethnicity of buyers. The typical home purchased by African Americans was larger, had three bedrooms, and was more recently built than all purchased homes. By contrast, the typical home purchased by Latino buyers had two bedrooms and one bath, was smaller in size, and built much earlier. Homes purchased by non-Hispanic white buyers typically had two bedrooms and two baths but were also relatively newer.

Table 40 Characteristics of Homes Purchased in Inglewood, 1999–2007 by Race/Ethnicity*

Median	All Purchases	Non-Hispanic White	Latino	African American	Other Race
Lot Size (n = 7,822)	6,651	14,031	5,898	6,751	6,705
Baths (n = 7,821)	2	2	1	2	2
Beds (n = 7,821)	2	2	2	3	2
Square Feet (n = 7,823)	1,200	1,051	1,060	1,388	1,194
Year Home Built (n = 7,821)	1951	1967	1940	1962	1951

* Race/ethnicity imputed using the surname name list.
Source: Home Purchases Dataset – DataQuick Sales Records 1999–2007 (n = 7,823).

Home Prices

Median purchase prices in Inglewood significantly increased in 2004 and continued to rise through much of the housing boom period (2005–7). Table 41 lists median home purchase prices during the prehousing boom and housing boom periods for each racial/ethnic group. Prior to the housing boom, the median purchase price for a home in Inglewood was approximately $228,000. Median purchase price for African Americans was slightly higher at $247,000. During the housing boom, this figure more than doubled. The median purchase price for African Americans was then $556,000. Median purchase price for Latinos was $508,000, and median purchase price for non-Hispanic whites was lowest compared to all groups at $363,000.

Using first and second loan information in the data set, we calculated the total loan amount for each purchase and estimated any down payments made by buyers at the time of purchase. As expected, median loan amounts for homes purchased during the housing boom doubled from prehousing boom prices for most racial/ethnic groups. Half of purchasers who bought a home from 1999 to 2004 placed a $5,000 minimum down payment. Between 2005 and 2007, at least half of home purchasers placed zero down payments. The median down payment amount among African American purchasers during this period was nearly $1,500. These amounts suggest that homeowners in the Inglewood case study area had little to no equity when the housing market collapsed and home values declined, leaving many people underwater.

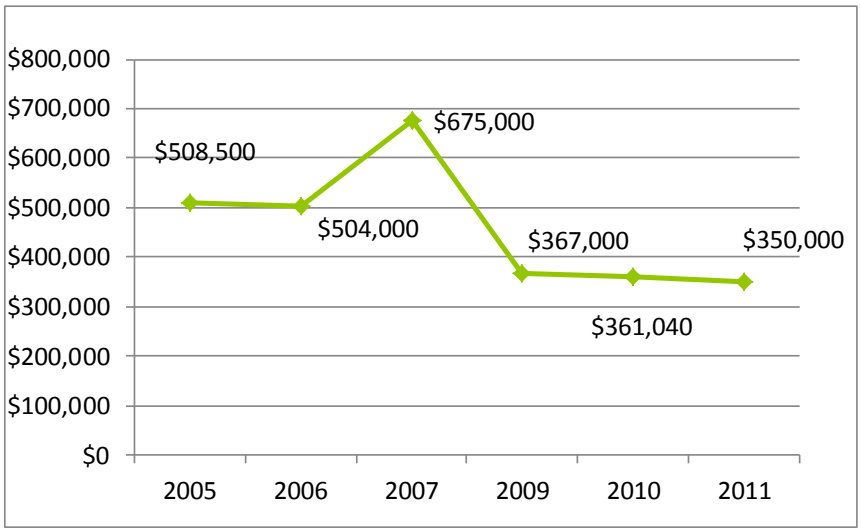
Table 41 Purchase Price, Loan Amounts, and Down Payments (adjusted to 2011 dollars) for Homes Purchased in Inglewood by Race/Ethnicity* and Purchase Period, 1999–2007

	Median Purchase Price	Median Loan Amount	Median Estimated Down Payment
Prehousing Boom Years (1999–2004)			
n =	4,917	4,626	4,716
All Purchases	$228,480	$217,438	$6,416
Non-Hispanic White	$189,950	$180,830	$5,175
Latino	$222,500	$209,048	$6,563
African American	$246,799	$234,345	$6,683
Other Race	$234,950	$218,750	$8,293
Housing Boom Years (2005–7)			
n =	2,398	2,348	2,364
All Purchases	$505,145	$466,380	$0
Non-Hispanic White	$363,400	$352,800	$0
Latino	$508,480	$486,000	$0
African American	$556,200	$492,800	$1,474
Other Race	$485,460	$460,000	$0

* Race/ethnicity imputed using the surname name list.
Source: Home Purchases Dataset – DataQuick Sales Records 1999–2007 (n = 7,823).

Self-reported median home values have declined over the 2005–11 time period with a spike in 2007 when median home values soared to $675,000 (see Figure 26). The overall value has declined significantly from $508,500 in 2005 to $350,000 in 2011.

Figure 26 Inglewood Median Home Values (adjusted to 2011 dollars), 2005–11



Source: Census ACS, PUMS 2005–2007 and 2009–2011.

Housing Burden

We calculated median household income-to-loan ratios by racial/ethnic groups and purchase period by imputing a purchaser's income (using the median income of owner-occupied households in each census tract) and dividing that number by the purchaser's total loan amount. During the prehousing boom years, home purchasers' annual household incomes represented roughly 32 percent of their mortgages (see Table 42). In 2005–7, this figure shrank to approximately 16 percent.

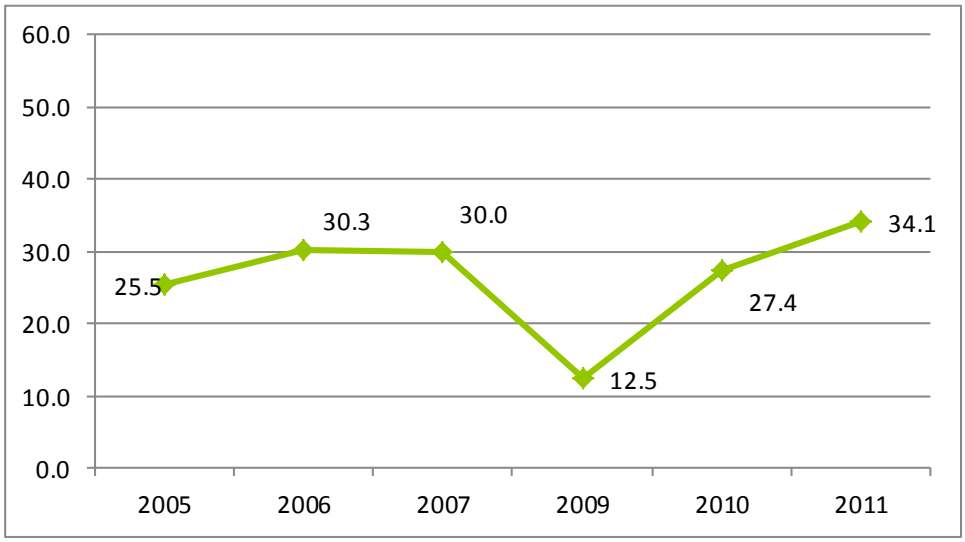
Table 42 Income-to-Loan Ratio by Race/Ethnicity* and Purchase Period in Inglewood, 1999–2007 (n = 7,471)

	All Purchases	Non-Hispanic White	Latino	African American	Other Race
Prehousing Boom Years (1999–2004)	.317	.347	.304	.317	.318
Housing Boom Years (2005–7)	.159	.182	.138	.163	.158

* Race/ethnicity imputed using the surname name list.
Source: Home Purchases Dataset – DataQuick Sales Records 1999–2007.

Homeownership in Inglewood spiked in 2006, went down in 2007, and then steadily increased from then until 2011. In comparison, the rate of households paying more than 50 percent of their household income to select monthly owner costs follows a somewhat similar pattern with spikes in the same years.

Figure 27 Inglewood Housing Burden, 2005–11



Source: Census ACS, PUMS 2005–2007 and 2009–2011.

The highest proportion of homeowners with housing burden is 2011 with 34.1 percent (see Figure 27). The increasing proportion of housing burden from 2009 to 2011 follows the same pattern of increasing rate of homeownership during the same time period. The year 2009 is when the homeownership rate went down and the rate of those with housing burden went down.

Home Loans

Variable interest loans or ARMs place homeowners at risk for higher interest rates and mortgage payments. For owners whose housing burden is already high or owners who experienced loss of income, these loans can decrease their ability to make payments and push them to default. Roughly one-third (36 percent) of home purchases from 1999 to 2004 were financed with ARMs. Purchases by African Americans (39 percent) were slightly more likely to have ARMs compared to home purchases by Latinos (31 percent). During the housing boom, 78 percent of home purchases were financed through ARMs.

The fraction of home buyers who secured a second loan for their homes also doubled from 33 percent for the prehousing boom period to 67 percent during the housing boom years. Rates by race/ethnicity and purchase period are also displayed in Table 43.

Table 43 Characteristics of Loans Used to Purchase Homes by Race/Ethnicity* and Purchase Period in Inglewood, 1999–2007 (n = 7,471)

	All Purchases	Non-Hispanic White	Latino	African American	Other Race
Prehousing Boom Years (1999–2004)					
First Loans with Variable Interest Rates	36.0%	35.2%	30.5%	39.1%	39.2%
Buyers with Second Loans	33.0%	36.3%	28.9%	35.1%	30.2%
Housing Boom Years (2005–7)					
First Loans with Variable Interest Rates	78.4%	72.9%	77.6%	80.6%	77.7%
Buyers with Second Loans	67.0%	69.4%	70.2%	63.7%	69.4%

* Race/ethnicity imputed using the surname name list.
Source: Home Purchases Dataset – DataQuick Sales Records 1999–2007.

Housing burden was high during the boom period as was subprime lending in Inglewood. The overall subprime loan rate went from 5 percent during 1999–2004 to more than 35 percent from 2005 to 2007 (see Table 44). This significant increase held despite race, with blacks in Inglewood having the largest proportion of subprime loans.

Table 44 Inglewood Loans Originated, 1999–2007

	Pre Boom	Boom
Subprime	5.0%	35.3%
Black	5.3%	36.4%
Latino	15.7%	34.6%
Other	3.0%	35.5%
Interest Rate	4.60	5.26
Black	4.59	5.25
Latino	4.61	5.36
Other	4.30	5.13

Note: Pre boom is the period between 1999-2004 and boom is the period between 2005-2007. Subprime loans are defined as those that are 3% and 5% over prime when the loan originated.
Source: HMDA 1999-2007

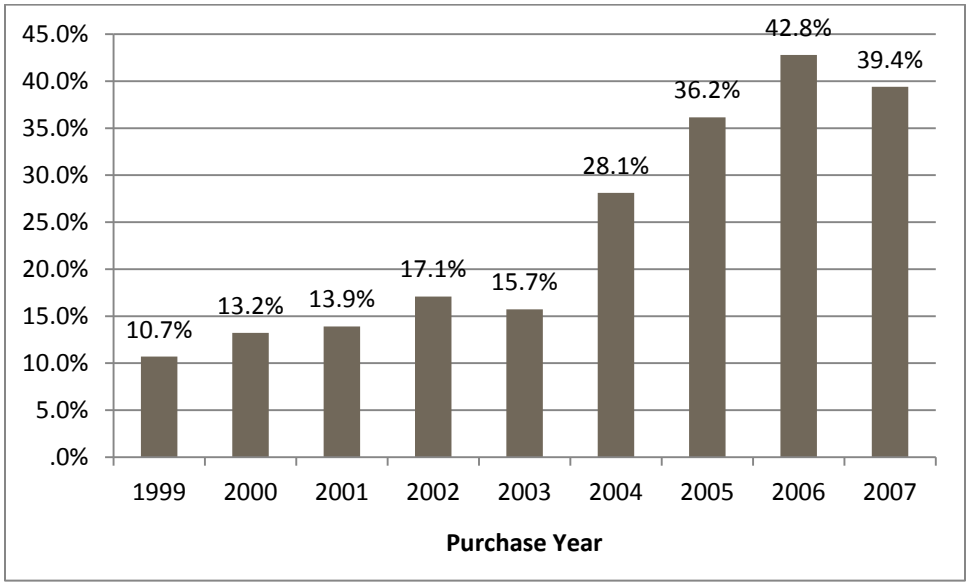
The subprime loan rate for Latinos, while less in the boom period, was significantly higher than all other racial groups in the preboom phase. Interest rates also increased from the preboom to the boom period across racial groups.

Notices of Default and Foreclosures

RAND (2012) estimates indicate the foreclosures in the Inglewood case study area were greatest from 2008 through 2011. Approximately 925 homes foreclosed in these years. In order to better understand the initiation and prevalence of foreclosures among African American homeowners in this area, we created a Merged Purchases, Defaults, and Foreclosures Dataset by identifying the latest purchase for each property from 1999 to 2007 and merging any recorded notices of defaults from 2006 to 2012 and foreclosures from 2007 to 2012 to the same properties. Through a surname match, home buyers were also categorized into racial/ethnic groups. The following section reports NOD and foreclosure rates for African Americans, Latinos, non-Hispanic whites, and owners of other races in the Inglewood case study area.

Of the 5,568 buyers who purchased a home in Inglewood from 1999 to 2007, 27 percent (1,485) received at least one NOD from 2006 to 2012. Homeowners who purchased their homes during the housing boom (2005–7) represented the majority (63 percent) of reported defaults. Figure 28 graphs the percent of buyers who received a NOD by year of purchase. No more than 17 percent of owners who purchased their homes prior to 2004 received a NOD from 2006 to 2012. Default rates increased among owners who purchased in the following years, especially those who bought their homes in 2006. Forty-three percent of these owners received a NOD in 2006–12.

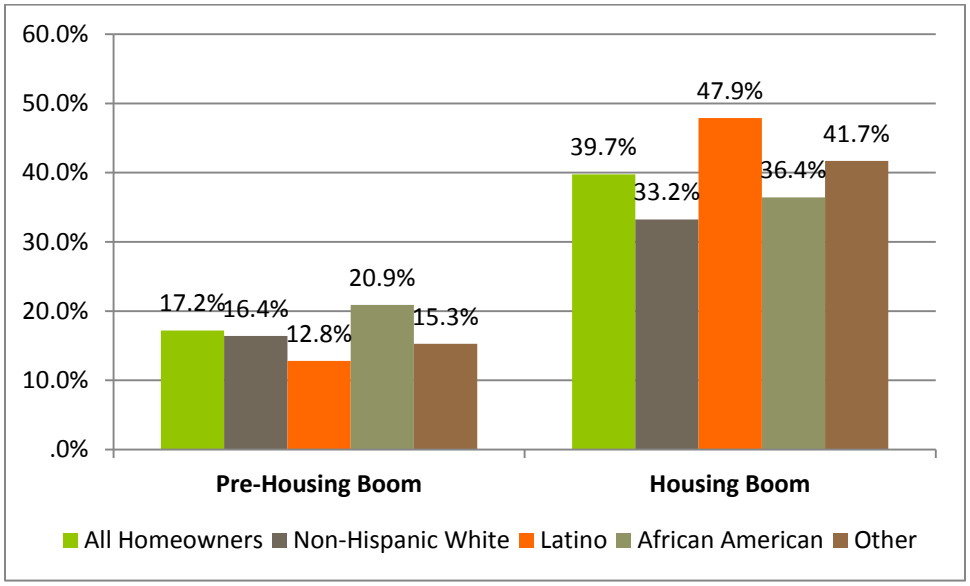
Figure 28 Percent of Inglewood Homeowners Who Received Notices of Default in 2006–12 by Purchase Year, 1999–2007 (n = 5,569)



Source: Merged Purchases, Defaults, and Foreclosures Dataset – DataQuick Sales Records 1999–2007, DataQuick Notices of Default Records 2006–2012, and DataQuick Foreclosures Records 2007–2012 (n = 5,569).

Analyses by race/ethnicity indicate that notices of default rates in Inglewood were highest among African Americans who purchased during the prehousing boom years (see Figure 29). Latinos who purchased their homes during the housing boom were most likely to default in the following years compared to other racial/ethnic groups. Although all groups who purchased during the housing boom were affected, this suggests that Latino owners were disproportionately at risk for foreclosure.

Figure 29 Percent of Inglewood Homeowners Who Received Notices of Default in 2006–12 by Race/Ethnicity* and Purchase Period, 1999–2007 (n = 5,569)



* Race/ethnicity imputed using the surname name list.
Source: Merged Purchases, Defaults, and Foreclosures Dataset – DataQuick Sales Records 1999–-2007, DataQuick Notices of Default Records 2006–2012, and DataQuick Foreclosures Records 2007–2012 (n = 5,569).

Owners who defaulted in the Inglewood area (n = 1,482) typically owed $11,000 to $15,000 upon receiving their first notice (see Table 45). The median delinquent amount for non-Hispanic white owners was slightly lower compared to Latino and African American homeowners.

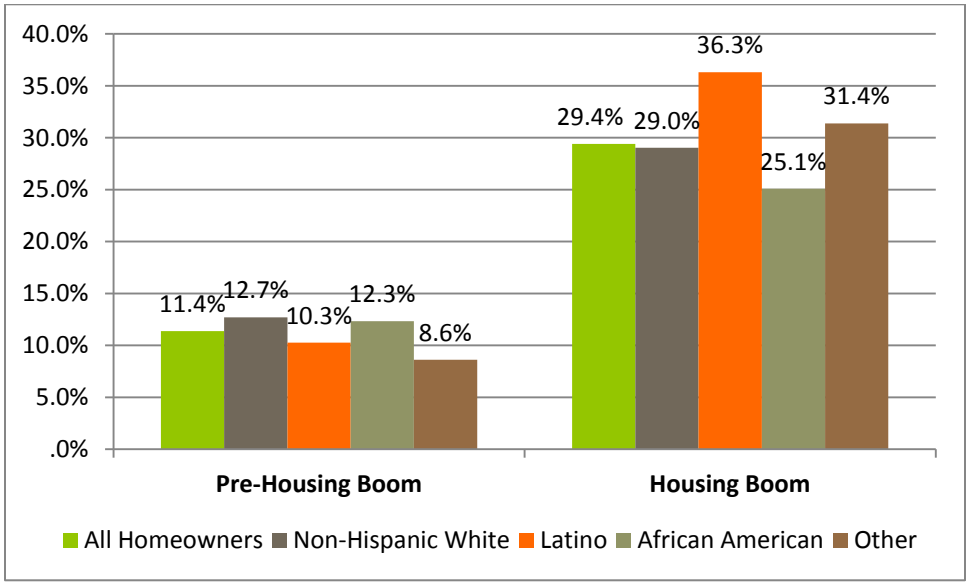
Table 45 Median Delinquent Amounts (adjusted to 2011 dollars) for Inglewood Homeowners Who Received a Notice of Default in 2006–12 by Race/Ethnicity* and Purchase Period, 1999–2007 (n = 1,482)

	All Homeowners	Non-Hispanic White	Latino	African American	Other Race
Prehousing Boom	$12,747	$11,142	$13,458	$12,658	$12,264
Housing Boom	$14,665	$11,079	$14,994	$15,767	$14,553

* Race/ethnicity imputed using the surname name list.
Source: Merged Purchases, Defaults, and Foreclosures Dataset – DataQuick Sales Records 1999–2007, DataQuick Notices of Default Records 2006–2012, and DataQuick Foreclosures Records 2007–2012.

Of the 5,569 owners who purchased a home in Inglewood from 1999 to 2007, 19 percent (1,055) foreclosed from 2007 to 2012 (see Figure 30). Owners who purchased their homes (29 percent) during the housing boom were nearly three times more likely to foreclose their homes in following years compared to those who purchased in prior to the boom (11 percent). Foreclosure rates among owners who purchased their homes from 1999 to 2004 did not notably vary by race/ethnicity for this period. However, Latino owners who purchased during the housing boom were more likely to foreclose from 2007 to 2012 compared to other groups. More than one-third (36 percent) of these owners foreclosed during this period. Approximately 25 percent of African American homeowners who purchased during the boom foreclosed, and 29 percent of non-Hispanic whites foreclosed.

Figure 30 Percent of Inglewood Homeowners Who Foreclosed Their Homes in 2007–12 by Race/Ethnicity* and Purchase Period, 1999–2007 (n = 5,569)



* Race/ethnicity imputed using the surname name list.
Source: Merged Purchases, Defaults, and Foreclosures Dataset – DataQuick Sales Records 1999–2007, DataQuick Notices of Default Records 2006–2012, and DataQuick Foreclosures Records 2007–2012 (n = 5,569).

After accounting for sales price, down payments, and year of purchase, regression results indicate that race/ethnicity is not associated with the likelihood of foreclosure in Inglewood (see Appendix B, Table 56). Each additional $1,000 placed as a down payment, however, likely reduces the odds of foreclosure in 2007–12. Similarly, owners who purchased their homes prior to 2005, before the housing boom, were less likely to foreclose than those who bought in 2005.

Summary and Observations

Home purchasing and foreclosure patterns in Inglewood generally reflect larger narratives on the impact of foreclosure in African American communities. The proportion of subprime loans increased sevenfold from 1999–2004 to 2005–7. One in three loans originated during the housing boom were subprime, which suggest that the community was impacted by predatory lending. Large majorities of homes were also purchased with variable interest mortgages and second loans during the housing boom. Residents in Inglewood, like many communities of color, were particularly affected by the economic recession,[5] so as household incomes decreased and mortgage interest rates potentially increased, owners who purchased during the boom might have struggled to maintain their housing payments in following years.

The Inglewood housing market was also less stable compared to other case study areas. Within seven years, the median home price for this area nearly tripled to $563,000 (in 2006) before plummeting to an average of $255,000 five years later. This steep rise and fall of home prices, coupled with an upsurge of home purchases during the housing boom, likely left many homeowners with severely underwater mortgages. Furthermore, DataQuick home sales data suggest that at least half of homeowners who purchased and financed a home during the housing boom did not place down payments and financed their homes entirely through loans. With housing boom era loan amounts, interest rates and mortgage payments were likely at record highs.

Given available data, it's currently unclear what accounts for differences in foreclosure rates between African American and Latino owners in Inglewood. Subprime loans were equally prevalent among racial/ethnic groups, and roughly 80 percent of buyers who financed their homes used ARMs, regardless of race/ethnicity. One notable difference between African American and Latino buyers was the estimated income-to-loan ratio for those who purchased during the housing boom. Household incomes among African American buyers typically represented 18 percent of their total loan amounts. This median measure was only 13 percent for Latino owners. Latino owners may have been more burdened and paid more toward housing as a percentage of their income. More studies are needed to understand racial/ethnic differences in foreclosures in this community.

[5] Carr, Anacker, and Mulcahy (2011).

HOMEOWNERSHIP AND FORECLOSURES IN THE WEST SAN GABRIEL VALLEY

Homeownership

Overall, homeownership dropped for all groups, except for Asians, the dominant racial group in the West San Gabriel Valley (see Table 46). It appears that the overall total homeownership rate during the boom was about two percentage points higher than during the posthousing boom. Latinos dropped a similar amount of percentage points during the same time periods while other race individuals decreased more substantially by slightly more than four percentage points. Not only did Asians increase their homeownership rate during this period, but they did so by more than five percentage points, which was more than any group decreased in homeownership.

Table 46 West San Gabriel Valley Homeownership Rates during and after the Housing Boom

	Total	Asian	Latino	Other Race
Housing Boom (2005–7)	53.6%	41.8%	42.7%	64.4%
Posthousing Boom (2009–11)	51.6%	46.9%	40.8%	58.7%

Sources: Census ACS, PUMS 2005–2007 and 2009–2011.

Table 47 shows that the largest share of homeowners in the West San Gabriel Valley is Asians followed by Latinos and other race individuals. There is a notable population that has a bachelor's degree or higher and a majority of foreign-born population. Median personal income and median household income are higher than the county average.

Table 47 West San Gabriel Valley Homeowner Characteristics

	2005-2007	2009-2011
Asians	54.8%	62.8%
Latinos	29.0%	26.1%
Others	16.2%	11.1%
BA degree or higher	29.4%	32.2%
Unemployed	1.7%	4.1%
Foreign born	57.1%	57.0%
= < 10 years in US	5.2%	3.1%
Speaks English Well	53.7%	54.1%
Median Personal Income	35,100	35,910
Median Household Income	67,800	68,367

Note: All income adjusted to 2011 dollars.
Sources: Census ACS, PUMs 2005-2007 and 2009-2011.

From 2005–7 to 2009–11 Asians became even a greater proportion of all homeowners while the proportion of homeowners that were Latino or other races declined slightly. Unemployment increased as did median personal income and median household income, but only slightly.

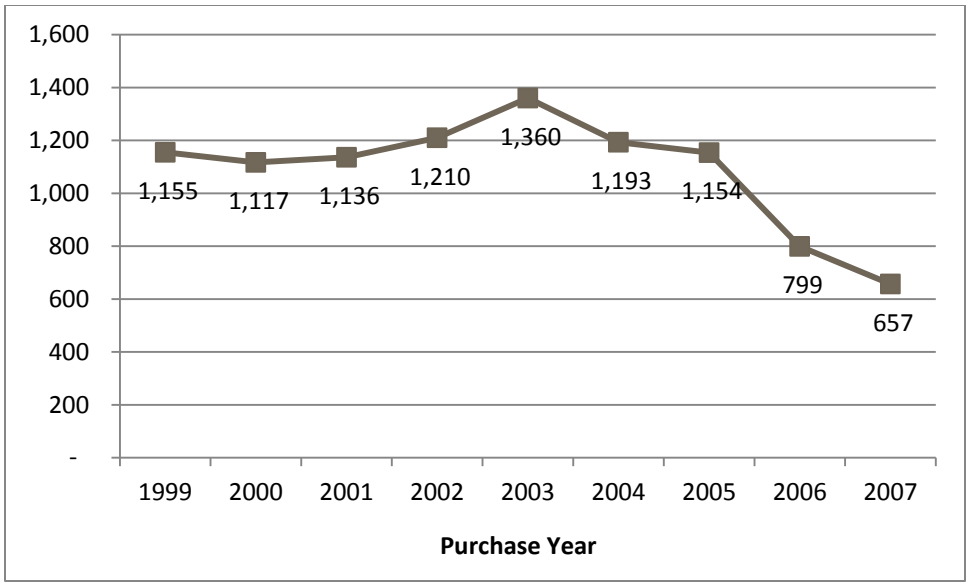
The overall homeownership rate in the West San Gabriel Valley is very close and slightly higher than the county average. Homeownership peaked in 2009 at 50 percent, and in 2011 experienced its lowest rate between 2005 and 2011 with a homeownership rate of 41.9 percent.

The results from the model used to predict homeownership is consistent with the prior research that indicates the importance of immigration, race, education, marital status, number of children, age, and income (see Appendix A, Figure 47). Having more education results in a higher likelihood of homeownership while having less reduces the likelihood of homeownership. Being a newer immigrant reduces the likelihood of being a homeowner as does not speaking English. Being currently married opposed to never married or divorced also results in a higher likelihood of owning a home. Interestingly enough, while Asians are the majority racial group in the West San Gabriel Valley, being Asian may make one more likely (compared to Latinos) to be a homeowner, but this finding was not statistically significant. However, being Latino compared to being white in the West San Gabriel Valley made one less likely to be a homeowner, but this finding was not statistically significant. None of the years was found to be statistically significant. Once we added an interaction term for race and year, there appears to be an effect, lowering the odds of being a homeowner at a greater level than in other years. This finding was statistically for being Asian and the year 2005.

Home Purchases

Home purchases in the West San Gabriel Valley did not rise as steeply as other parts of the county (see Figure 31). In the nine-year span between 1999 and 2007, home purchases were greatest in 2003. Nearly 1,400 homes were sold that year, which represents roughly two hundred more home purchases than in previous years. Purchases gradually declined in 2004 and 2005 before dipping to significantly low levels in 2006 and 2007.

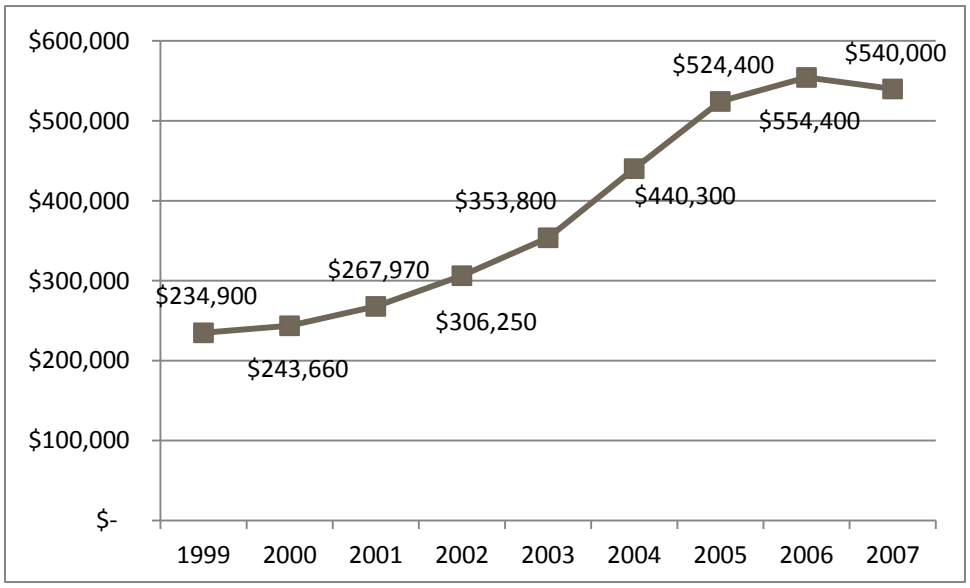
Figure 31 Number of Home Purchases in West San Gabriel Valley in 1999–2007 by Purchase Year (n = 9,781)



Source: Home Purchases Dataset – DataQuick Sales Records 1999–2007 (n = 9,781).

During this same period, median purchase prices increased substantially from $235,000 at the lowest to $554,000 in 2006 (see Figure 32). Even as home purchases started to decline in 2004, buyers continued to purchase homes at increasing prices.

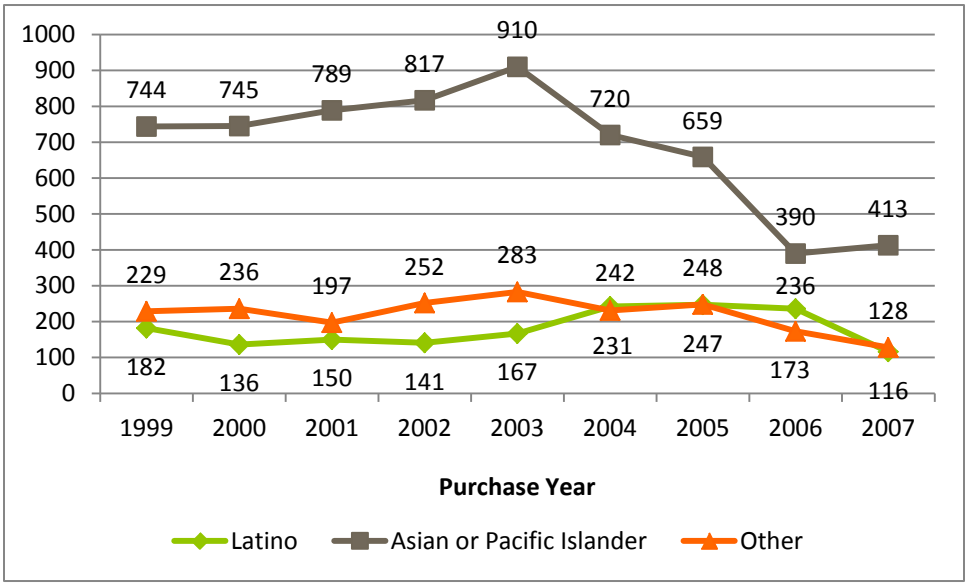
Figure 32 Median Purchase Prices (adjusted to 2011 dollars) in West San Gabriel Valley, 1999–2007 (n = 9,293)



Source: Home Purchases Dataset – DataQuick Sales Records 1999–2007.

API home buyers made up a substantial majority (63 percent) of home buyers in Glendale from 1999 to 2007. From 1999, between seven hundred and eight hundred homes were purchased by APIs (see Figure 33). Home purchases by this population exceeded eight hundred in 2002 and peaked in 2003 with 910 purchases. Up until then, the rise in purchases was gradual compared to subsequent declines the following years. By 2004, home purchases by APIs had declined to 1999 levels. The year 2006 marked the most significant decrease and lowest number of home purchases by this population. Home purchases by Latinos and people of other races, in contrast, represented a small fraction of purchases in the area and remained largely steady throughout the nine-year period.

Figure 33 Number of Home Purchases in West San Gabriel Valley by Race/Ethnicity* and Purchase Year, 1999–2007 (n = 9,781)



* Race/ethnicity imputed using the surname name list.
Source: Home Purchases Dataset – DataQuick Sales Records 1999–2007 (n = 9,781).

The typical West San Gabriel Valley home purchased during this period had three bedrooms and two bathrooms and was 1,435 square feet in size (see Table 48). Homes purchased by APIs tended to be newer and had larger lot sizes than the typical home purchased. Half of API buyers purchased homes built after 1965. By contrast, homes purchased by Latinos were typically smaller. Half of these homes were built before 1950.

Table 48 Characteristics of Homes Purchased in West San Gabriel Valley 1999–2007 by Race/Ethnicity*

Medians	All Purchases	Latino	Asian or Pacific Islander	Other Race
Lot Size (n = 9,773)	7,279	6,380	7,674	7,158
Baths (n = 9,777)	2	2	2	2
Beds (n = 9,776)	3	3	3	3
Square Feet (n = 9,780)	1,435	1,264	1,472	1,436
Year Home Built (n = 9,780)	1959	1950	1965	1958

* Race/ethnicity imputed using the surname name list.
Source: Home Purchases Dataset – DataQuick Sales Records 1999–2007 (n = 9,781).

Home Prices

Although home purchases peaked in 2003, median purchase prices continued to climb for another three years, through a period described in this report as the housing boom period (2005–7). Table 49 lists median home purchase prices during prehousing boom and housing boom periods for each racial/ethnic group. Between prehousing boom and housing boom periods, the median purchase price for a home in the West San Gabriel Valley increased 77 percent to $540,000. Median purchase prices for Latinos were slightly lower compared to APIs during the prehousing boom period. However, during the housing boom, Latinos typically purchased more expensive homes then APIs.

Table 49 also lists median loan amounts and down payments for homes purchased during the prehousing boom and housing boom periods. Total loan amounts were estimated by summing first and, if applicable, second loans, and we calculated down payments by subtracting total loan from purchase price. From 1999 to 2004, median loan amounts for APIs and Latinos were relatively comparable. However, API purchasers placed larger down payments. The median down payment for API purchasers during the prehousing boom period was $64,000. The median down payment for Latino purchasers was $15,000 and for other race purchasers was $51,000.

During the housing boom, total loan amounts increased significantly for all racial/ethnic groups, as did down payments with the exception of Latino home purchasers. The median down payment for Latinos during this period was $14,000, less than the median down payment in previous years. The median down payment for APIs during the housing boom was $105,000, which helped reduce the median total loan amount for this population. At $426,000, API purchasers had the lowest median total loan amount compared to other racial/ethnic groups during this period.

Table 49 Purchase Price, Loan Amounts, and Down Payments (adjusted to 2011 dollars) for Homes Purchased in West San Gabriel Valley by Race/Ethnicity* and Purchase Period, 1999–2007

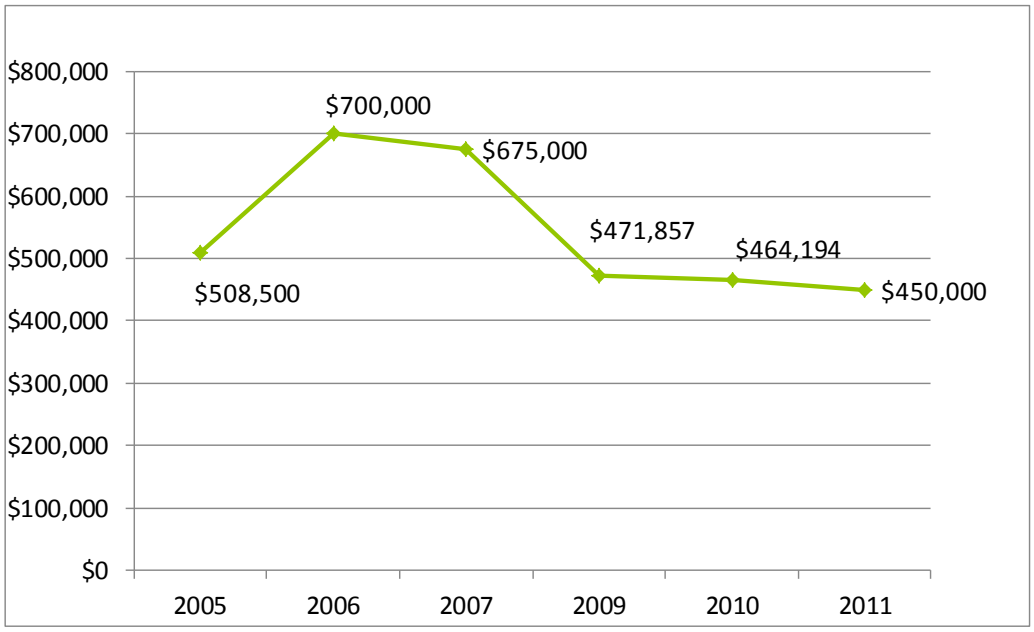
	Median Purchase Price	Median Loan Amount	Median Estimated Down Payment
Prehousing Boom Years (1999–2004)			
n =	6,871	6,108	6,108
All Purchases	$305,000	$243,895	$59,028
Latino	$285,750	$258,622	$15,199
Asian or Pacific Islander	$306,160	$237,900	$67,466
Other Race	$314,400	$255,834	$50,565
Housing Boom Years (2005–7)			
n =	2,422	2,265	2,265
All Purchases	$540,000	$450,360	$80,500
Latino	$558,055	$512,980	$13,620
Asian or Pacific Islander	$525,415	$425,600	$105,225
Other Race	$546,405	$458,853	$76,464

* Race/ethnicity imputed using the surname name list.

Source: Home Purchases Dataset – DataQuick Sales Records 1999–2007 (n = 9,781).

During the boom years, purchase prices hovered around $500,000 across all racial groups, and this amount is somewhat consistent with individual's self-reported median home value. Interestingly enough, individuals' self-reported median home values between 2006 and 2007 were as high as $700,000 and $675,000, respectively (see Figure 34).

Figure 34 West San Gabriel Valley Median Home Values (adjusted to 2011 dollars)



Source: Census ACS, PUMS 2005–2007 and 2009–2011.

By 2009 after the housing boom, we see that self-reported median home values start to decline and continue to do so until 2011. From the beginning of the boom to 2011 there was tremendous change in an individual's sense of their home value, and they found following the boom that their home was worth a little more than $50,000 than in 2005.

Housing Burden

Table 50 also displays median household income-to-loan ratios by racial/ethnic groups and purchase period. This ratio was derived by imputing a purchaser's income (using the median income of owner-occupied households in each census tract) and dividing that number by the purchaser's total loan amount. While not perfect, this ratio measures an owner's housing burden or costs. During the prehousing boom years, home purchasers' annual household incomes represented 28 percent to 30 percent of their mortgages. In 2005–7, this figure shrank to approximately 16 percent. Ratios by racial/ethnic group varied slightly.

Table 50 Income-to-Loan Ratio by Race/Ethnicity* and Purchase Period in West San Gabriel Valley, 1999–2007 (n = 8,814)

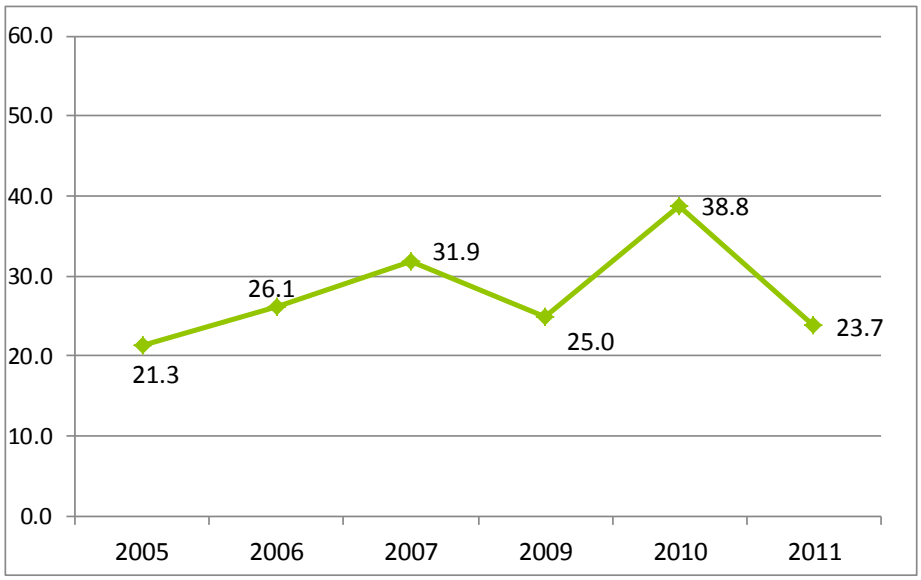
	All Purchases	Latino	Asian or Pacific Islander	Other Race
Prehousing Boom (1999–2004)	.292	.278	.297	.284
Housing Boom (2005–7)	.157	.144	.164	.160

* Race/ethnicity imputed using the surname name list.

Source: Home Purchases Dataset – DataQuick Sales Records 1999–2007.

In Figure 35, we can see self-reported housing burden, those spending 50 percent or more on housing costs has changed over the period from 2007 to 2011. This pattern is one that shows of decrease in burden from 2007 to 2009 and then increase from 2009 to 2010 and then down again from 2010 to 2011. The peak of housing burden is in 2010 while 2011 levels have gone down closer to the 2005 level.

Figure 35 West San Gabriel Valley Housing Burden, 2005–11



Source: Census ACS, PUMS 2005–2007 and 2009–2011.

Home Loans

Variable interest loans or ARMs allow lending institutions to adjust the interest rate and therefore monthly mortgage payments on a loan, making it sometimes more difficult for owners to make their payments. During the prehousing boom period, roughly one of five (21 percent) home purchasers had ARMs. Latino purchasers (33 percent) were most likely to have ARMs, while APIs (17 percent) were least like to have ARMs (see Table 51). By 2005 through 2007, the fraction of purchasers with variable interest loans more than doubled to 48 percent. Again, API home purchasers (34 percent) were least likely to have variable interest loans, followed by purchasers of other races (54 percent). Nearly three of four Latino purchasers bought their homes with ARMs during the housing boom period.

Similar trends were also observed among buyers with second loans. As expected, the proportion of home purchasers who took out a second loan to buy their home substantially increased during the housing boom period compared to the prehousing boom years. Forty-four percent of homeowners who purchased during the housing boom had a second loan. A little more than one-third (35 percent) of API purchasers had a second loan compared to 62 percent of Latino purchasers and 45 percent of owners of a different race.

Table 51 Characteristics of Loans Used to Purchase Homes by Race/Ethnicity* and Purchase Period in West San Gabriel Valley, 1999–2007 (n = 8,814)

	All Purchases	Latino	Asian or Pacific Islander	Other Race
Prehousing Boom (1999–2004)				
First Loans with Variable Interest Rates	21.1%	32.6%	17.4%	24.5%
Buyers with Second Loans	15.1%	25.7%	11.8%	17.8%
Housing Boom (2005–7)				
First Loans with Variable Interest Rates	47.5%	72.4%	33.9%	53.8%
Buyers with Second Loans	43.8%	62.1%	35.1%	45.3%

* Race/ethnicity imputed using the surname name list.
Source: Home Purchases Dataset – DataQuick Sales Records 1999–2007.

Interest rates charged went up slightly from the preboom to the boom period. This increase can be seen across all racial groups. Interestingly enough for Asians, the majority population in the area, the interest rate went up the most and by the boom period, the average interest rate that Asian homeowners held was slightly higher than all other racial groups including Latinos.

Following the preboom period, we see a substantial increase in the rate of subprime lending across all racial groups, but for Latino homeowners, this rate was close to a third of all Latino homeowners (see Table 52). The Asian rate of subprime loans went from almost 0 percent to 9.2 percent in the boom period.

Table 52 West San Gabriel Valley Loans Originated, 1999–2007

	Preboom	Boom
Subprime	1.5%	18.1%
Asian	0.5%	9.2%
Latino	13.3%	28.6%
Other	1.6%	19.5%
Interest Rate	4.75	5.21
Asian	4.26	5.27
Latino	4.95	5.19
Other	4.70	5.12

Notes: Preboom is the period between 1999–2004 and boom is the period between 2005–2007. Subprime loans are defined as those that are 3% and 5% over prime when the loan originated.
Source: HMDA 1999–2007

The rate of subprime lending in the West San Gabriel Valley was fairly moderate during prehousing boom with the exception of for Latinos. Subprime loans among Latinos were at a high of 13.3 percent in the prehousing boom period.

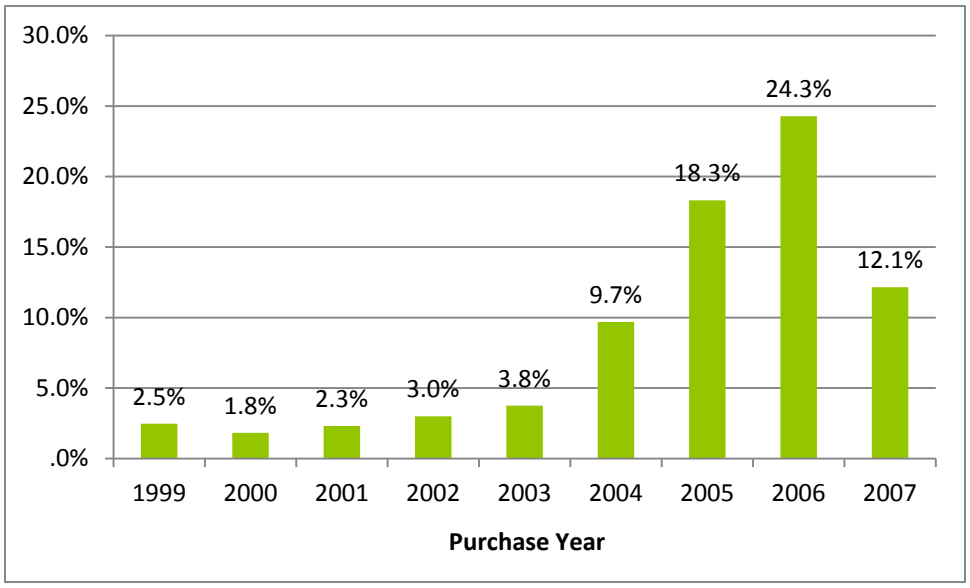
Notices of Default and Foreclosures

RAND (2012) estimates indicate the foreclosures of West San Gabriel Valley single-family homes spiked in 2008 and continued to occur at elevated levels through 2011. Our analyses attempt to better understand loan defaults and foreclosures during this period for API homeowners, and where possible, compare those experiences with other racial/ethnic groups. Recall that a Merged Purchases, Defaults, and Foreclosures Dataset was created by identifying the latest purchase for each property from 1999 to 2007 and merging any recorded NODs from 2006 to 2012 and foreclosures from 2007 to 2012 to the same properties. Through a surname match, home buyers were also categorized into racial/ethnic groups. The following section reports NOD and foreclosure rates for APIs who made up the majority of owners in the West San Gabriel Valley case study area, Latinos, and all other races.

Of the 7,262 buyers who purchased a home in the West San Gabriel Valley from 1999 to 2007, 9 percent (624) received at least one NOD from 2006 to 2012. However, two-thirds (68 percent) of these owners purchased their homes during the housing boom, from 2005 to 2007. Figure 36 graphs the percent of buyers who received a NOD by year of purchase. The rates of default in 2006–12 among owners who bought their homes prior to 2004 were minimal, no more than 4 percent. Rates of defaults began to increase among homes purchased in 2004. Defaults were greatest for homes purchased in 2006; nearly

one-fourth (24 percent) of all homeowners who purchased their homes this year defaulted between 2006 and 2012. Defaults declined for homes purchased in 2007.

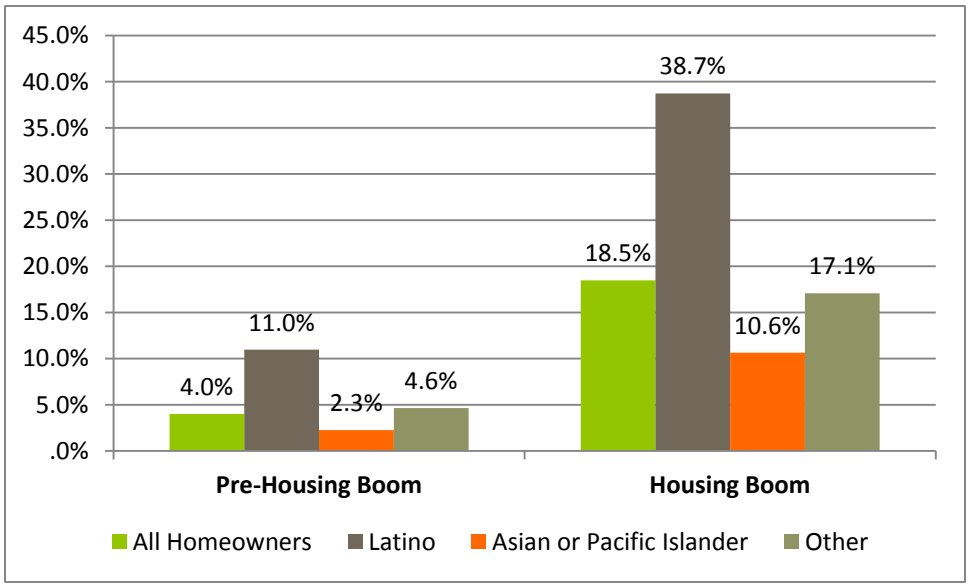
Figure 36 Percent of West San Gabriel Valley Homeowners Who Received Notices of Default in 2006–12 by Purchase Year, 1999–2007 (n = 7,262)



Source: Merged Purchases, Defaults, and Foreclosures Dataset – DataQuick Sales Records 1999–2007, DataQuick Notices of Default Records 2006–2012, and DataQuick Foreclosures Records 2007–2012 (n = 7,262).

Analyses by race/ethnicity indicate that NOD rates in the West San Gabriel Valley varied across racial/ethnic groups (Figure 37). Less than 3 percent of API homeowners who purchased their home during the prehousing boom years defaulted in 2006–12. For those who purchased their homes during the housing boom, 11 percent received a NOD in subsequent years. Rates of default among other racial/ethnic groups also tripled for homes purchased during the housing boom. As many as 39 percent of Latino homeowners who purchased their homes in 2005–7 defaulted in 2006–12, and 17 percent of homeowners of another race defaulted during the same period.

Figure 37 Percent of West San Gabriel Valley Homeowners Who Received Notices of Default in 2006–12 by Race/Ethnicity* and Purchase Period, 1999–2007 (n = 7,262)



* Race/ethnicity imputed using the surname name list.
Source: Merged Purchases, Defaults, and Foreclosures Dataset – DataQuick Sales Records 1999–2007, DataQuick Notices of Default Records 2006–2012, and DataQuick Foreclosures Records 2007–2012 (n = 7,262).

Table 53 displays median delinquent amounts for homeowners who received a NOD in 2006–12 by racial/ethnic group and purchase era. Owners who defaulted in 2006–12 typically owed $14,000 to $16,000 by the time they received their first notice.

Table 53 Median Delinquent Amounts (adjusted to 2011 dollars) for West San Gabriel Valley Homeowners Who Received a Notice of Default in 2006–12 by Race/Ethnicity* and Purchase Period, 1999–2007 (n = 624)

	All Homeowners	Latino	Asian or Pacific Islander	Other Race
Prehousing Boom	$13,664	$14,989	$13,389	$12,718
Housing Boom	$16,122	$15,462	$16,900	$17,546

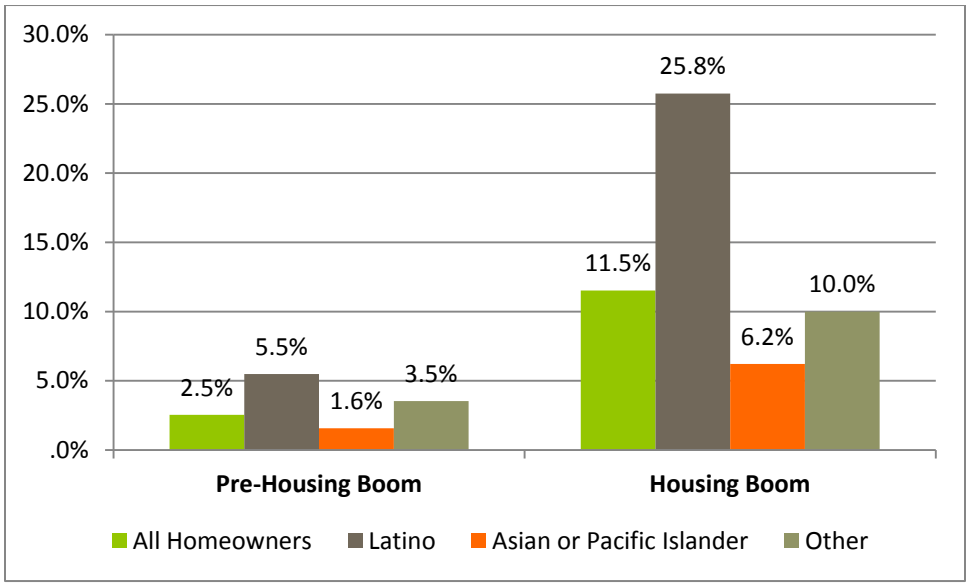
* Race/ethnicity imputed using the surname name list.

Source: Merged Purchases, Defaults, and Foreclosures Dataset – DataQuick Sales Records 1999–2007, DataQuick Notices of Default Records 2006–2012, and DataQuick Foreclosures Records 2007–2012.

Less than 2 percent of API homeowners who purchased their home prior to the housing boom foreclosed their homes in 2007–12 (see Figure 38). A little more than 6 percent of API homeowners who purchased during the housing boom foreclosed during the same period, which is a relatively low rate compared to other racial/ethnic groups in the West San Gabriel Valley and API homeowners in other case study areas. Roughly one of four Latino homeowners who purchased during the housing boom

foreclosed their home in later years. Latino homeowners represented 45 percent of foreclosed home in this data set; APIs represented 34 percent of foreclosures.

Figure 38 Percent of West San Gabriel Valley Homeowners Who Foreclosed Their Homes in 2007–12 by Race/Ethnicity* and Purchase Period, 1999–2007 (n = 7,262)



* Race/ethnicity imputed using the surname name list.
Source: Merged Purchases, Defaults, and Foreclosures Dataset – DataQuick Sales Records 1999–2007, DataQuick Notices of Default Records 2006–2012, and DataQuick Foreclosures Records 2007–2012 (n = 7,262).

During the housing boom, Latino purchasers were three times more likely to take out subprime loans compared to Asian Americans. This might partially account for higher odds of foreclosure among Latino owners compared to API owners. Logistic regression results suggest that Latino owners in the West San Gabriel Valley were 1.8 times more likely to foreclose their homes in 2007–12 compared to API homeowners (see Appendix B, Table 57). Regardless of race/ethnicity, owners who purchased higher priced homes were at higher risk of foreclosure, and those who placed greater down payments were less likely to foreclose than those who had smaller down payments. Owners who purchased their homes in 1999, 2001, and 2003 were significantly (at the .05 level) less likely to foreclose in 2007–12 than owners who bought in 2005.

Summary and Observations

APIs represented the majority of home purchases in the West San Gabriel Valley from 1999 to 2007. Home prices in this community also reached historic levels during the housing boom, but the subsequent decline was not as precipitous as seen in other communities. In this regard, the West San Gabriel Valley housing market was relatively more stable. Furthermore, although home prices continued to rise through 2006 and 2007, purchases in the area started to drastically decline in 2004. Therefore, fewer buyers entered the market when prices were highest.

Subprime lending and ARM lending increased during the housing boom compared to earlier years. Most of these risky loans, however, went to Latino home buyers, which is important to note. More than three-fourths of Latino buyers who purchased during the housing boom with a loan used variable interest loans, compared to only a third of API buyers. Twenty-nine percent of loans originated by Latino borrowers were subprime compared to 9 percent of loans by Asian Americans. As a result, foreclosure rates among Latino and API owners varied widely.

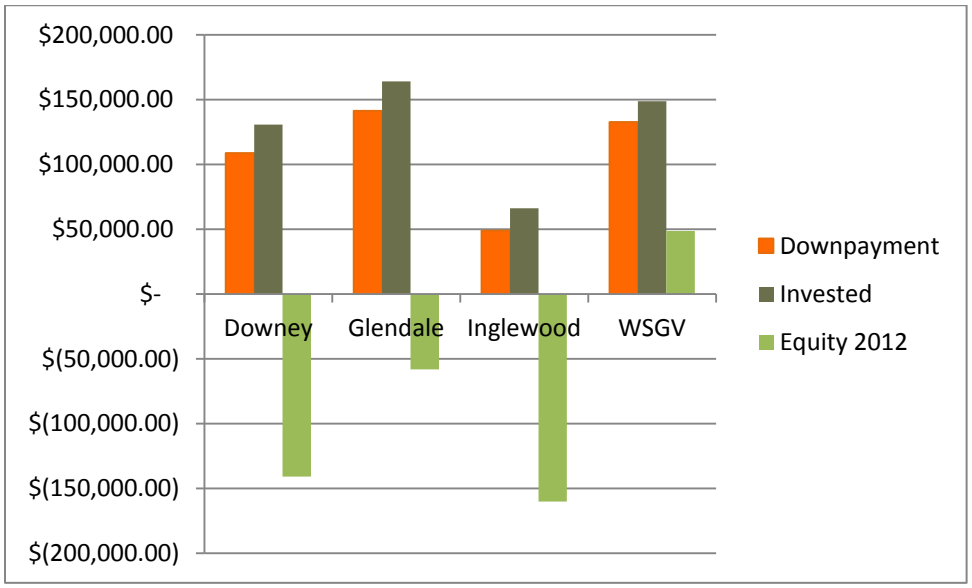
Although foreclosures among API owners were slightly higher among those who purchased during the housing boom, the overall rate remained much lower compared to other communities and countywide. One reason could be the relative stability of the housing market, which reduced the likelihood of underwater mortgages. Of special note are the median down payment amounts placed by API buyers in this case study area. Prior to the housing boom, API home purchasers placed a median down payment of $67,000; median price for homes purchased from 1999 to 2004 was $244,000. The median sale price for houses purchased during the housing boom was $426,000, and the median down payment amount among APIs also rose to $105,000. During both periods, these buyers paid a large proportion of the purchase price upfront, which reduced their total loan amounts and monthly payments.

Purchase patterns of API home buyers in the West San Gabriel Valley suggest that this group was more conservative compared to other racial/ethnic groups and tended to accumulate larger savings or assets for sizable down payments. Findings also indicate that this population was less impacted by subprime lending than other groups, which further reduced owners' risk of default and foreclosure. One key point to note is that the majority of Asian American owners in the West San Gabriel Valley are Chinese American. As a result, what we find may not reflect the experiences of other API ethnic groups or Asian Americans in other communities.

CONCLUSION

Findings from this study show that between 2000 and 2012 all four study areas experienced some change in housing conditions. However, not all areas experienced the impact in the same way or at the same level. Even areas that were considered more socioeconomically well off also experienced notable declines, such as Glendale where median home value decreased more than $300,000 from its peak in 2006–11. Based on our estimates it would appear that the West San Gabriel Valley fared noticeably better than the other three communities. Even when examining those who did not foreclose, it is clear that West San Gabriel has fared the best in terms of total equity (see Figure 39). There may be a couple of explanations for this as it relates to higher levels of down payment in proportion to purchase price, but perhaps also something about the West San Gabriel Valley in general and home values and prices being more stable in the housing decline. This raises a question about why home values would be more stable in the West San Gabriel Valley as opposed to other places like Glendale.

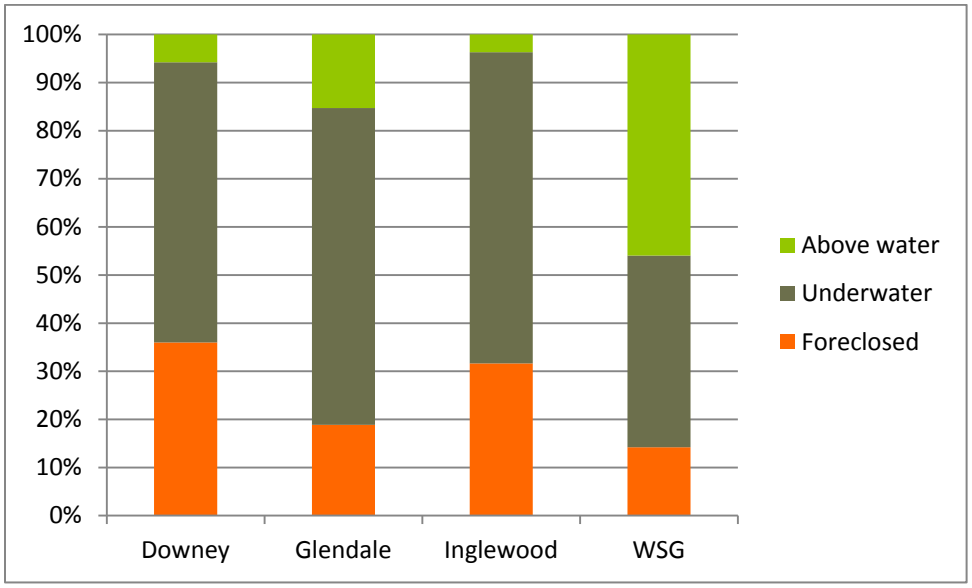
Figure 39 Estimated Average Financial Status of Those Who Did Not Foreclose, 2012



Notes: Total invested (down payment plus reduction in mortgage principal) determined in 2012. Net equity in 2012 is the difference between the estimated balance on the mortgage and the estimated home price.
Source: DataQuick.

Figure 40 shows the proportion of above water, underwater, and foreclosed homes for all communities. Glendale and the West San Gabriel Valley had lower foreclosure rates and a higher proportion of homes above water compared to Downey and Inglewood. Overall, Inglewood and Downey suffered the most, but in slightly different ways.

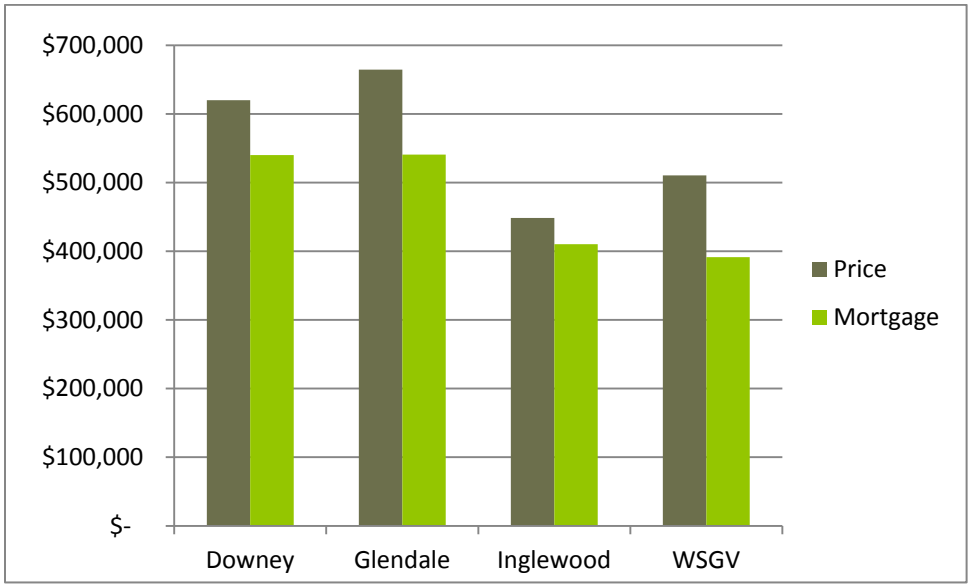
Figure 40 Distribution of Homes by Status in 2012–13



Note: Foreclosed by early 2013, underwater in 2012, and above water in 2012.
Source: DataQuick.

Part of the differences in foreclosure rate and the proportion of homes above water may be due to differences in down payment but also in housing burden. Figure 41 shows the difference between purchase price and mortgage amounts. Glendale and the West San Gabriel Valley fared better than other communities with larger average down payments relative to purchase, which presumably translates to lower housing burden. Despite both having higher loan to value ratios, one difference between Downey and Inglewood is the overall average for purchase price, which is substantiallly higher in Downey. Thus, owners in Downey not only purchased at higher prices, but they also put less down compared to other areas such as Glendale and the West San Gabriel Valley.

Figure 41 Average Purchase Price and Mortgage by Case Study Areas, 2005–7



Note: Mortgage includes first and second lien.
Source: DataQuick 2005–2007.

Subprime loans and average interest rates were also higher in Downey and Inglewood compared to the West San Gabriel Valley and Glendale. The change and increase from the preboom to the boom period between 2005 and 2007 showed tremendous increase in the proportion of subprime loans from 2.9 percent to 29.2 percent for Downey and 5 percent to 35.3 percent for Inglewood. These findings are consistent with what we would expect.

Not only do our findings point to the importance of geography as demonstrated by the differences we see in various communities, but also it highlights difference by race. There are some findings that were consistent for certain racial groups across the communities examined.[6] The only racial group for which there was not a substantial enough population to conduct further analysis was blacks/African Americans. Therefore, all discussion of blacks/African Americans refer only to Inglewood residents.

Latinos consistently experienced a higher rate of loans with higher and/or variable interest rates and had lower down payments. In contrast, non-Hispanic whites and Asian Americans typically put down the

[6] It should be noted that data on specific racial groups within some communities were not accounted for. This is due to the lower sample size of some racial groups in certain communities. For example, Asian Americans were only numerous enough to report findings on Asian Americans as a separate racial group in Glendale and the West San Gabriel Valley. Similarly, non-Hispanic whites are only discussed for Downey and Glendale. Data on Latinos/Hispanics are analyzed and reported for Downey, Glendale, Inglewood, and the West San Gabriel Valley while blacks/African Americans are only discussed in Inglewood.

most amount of money relative to the purchase price. Latinos and blacks also had the highest burden as defined by the proportion of cost to household income.

There are also findings that point to the importance of race and place. Despite the housing market decline, the homeownership rate of a dominant racial group in any given community changed very little relative to other racial groups. One would expect that the market decline would impact and change the homeownership rates among the dominant racial group, but their homeownership rates have remained while ownership rate for other racial groups declined. For example, in Downey the Latino homeownership rate in 2005–7 was 41.6 percent and in 2009–11 this rate was 41.1 percent. In comparison, the non-Hispanic white homeownership rate went down from 65.8 percent to 61 percent while other race individuals went from 46 percent to 42.2 percent during the same time period, respectively.

In some cases homeownership rates increased among the dominant racial group following the housing declining, as was the case in West San Gabriel and Inglewood, indicating that not only were they perhaps more likely to remain during the housing market changes, but also maybe they more likely to represent newcomers moving into those neighborhoods while other groups left (see Table 17 and Table 21).

The experiences of various racial groups in particular communities is certainly concerning and consistent with the existing research, which has indicated how predatory lending and subprime loans were and are more prevalent in certain communities. It would also be important to explore further possible differences in experiences and impact by race depending on the neighborhood with additional case studies of various neighborhoods. For instance, Latinos in Downey suffered significantly high housing burden, large mortgages, and significant drops in home value, but what would the impact look like in a community with lower socioeconomic indicators? Would Latinos be worse off or better off? And why is it that, despite Downey being fairly middle class with a median household income higher than all other communities, that homeowners there and Latinos in particular fared so badly?

Future research should also consider including more areas where there is a substantial enough population of African Americans to examine the impacts of the housing boom and bust among African Americans across Los Angeles County and beyond. Our report demonstrates the devastating loss in Inglewood relative to all other communities. Inglewood by far suffered the worst in terms of home equity loss and foreclosures. This was one of the communities where even in the peak of the housing boom purchases continued to rise along with purchase prices. So what was it that drove individuals to continue to purchase? To what degree could this be explained by predatory lending opposed to making risky investments decisions?

As much other research does, this research raises several questions for future study. Many of these questions can be answered by existing quantitative data, but some require discussion with individual homeowners who have an in-depth and complex understanding about decisions and the homeownership process. We hope to address some of these questions from the perspective of homeowners in our report based on interviews with homeowners from throughout the county. We will

ask homeowners who purchased during the peak about their experiences with the home-buying process, making payments, being a homeowner, and any challenges or difficulties they have had being a homeowner including possibly receiving a NOD and/or experiencing foreclosure.

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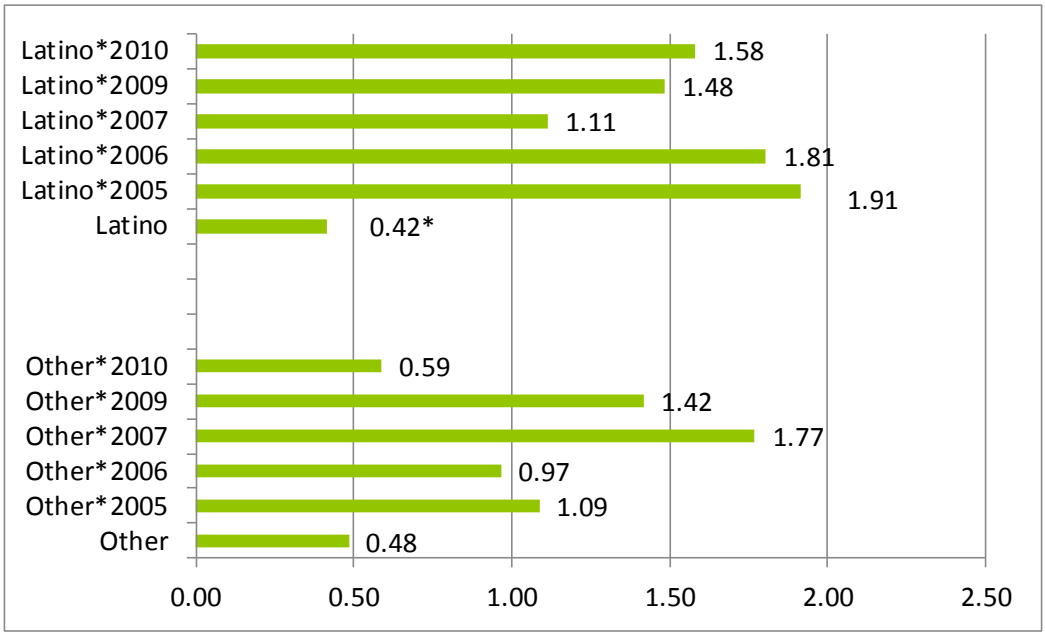
Appendix A: Homeownership Models

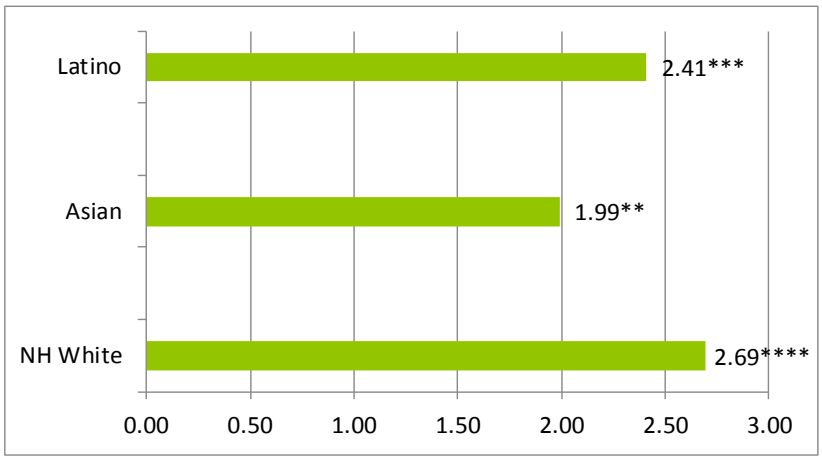
Figure 43 Downey Homeownership Model Results with Race Year Interactions



**$p < .05$

Source: Tabulations by authors using Census ACS 2005–2007, 2009–2011.

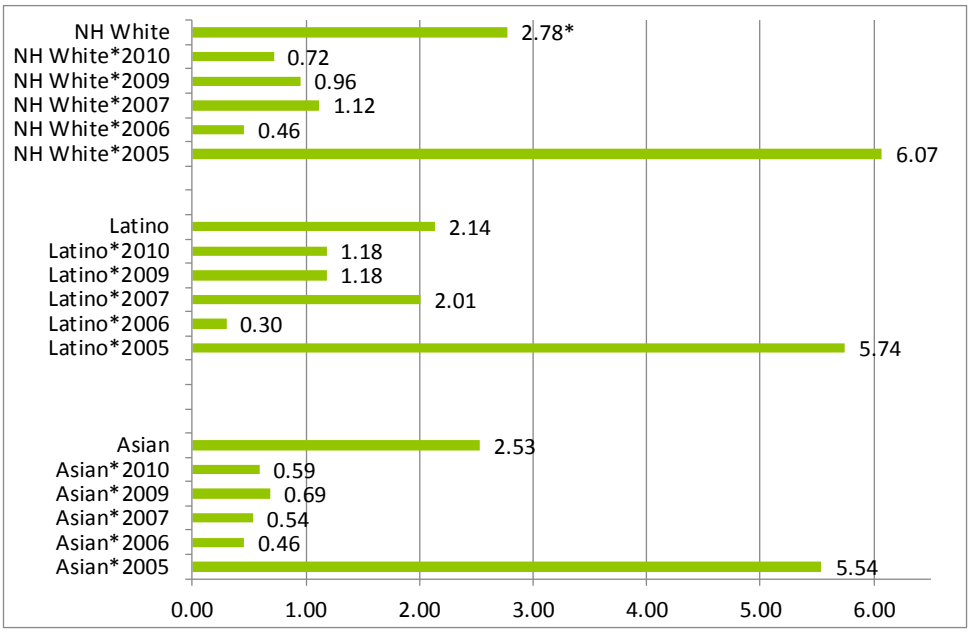
Figure 44 Glendale Homeownership Model Results without Race Year Interactions



**$p < .05$ *** $p < .01$ ****$p < .001$

Source: Tabulations by authors using Census ACS 2005—2007, 2009—2011.

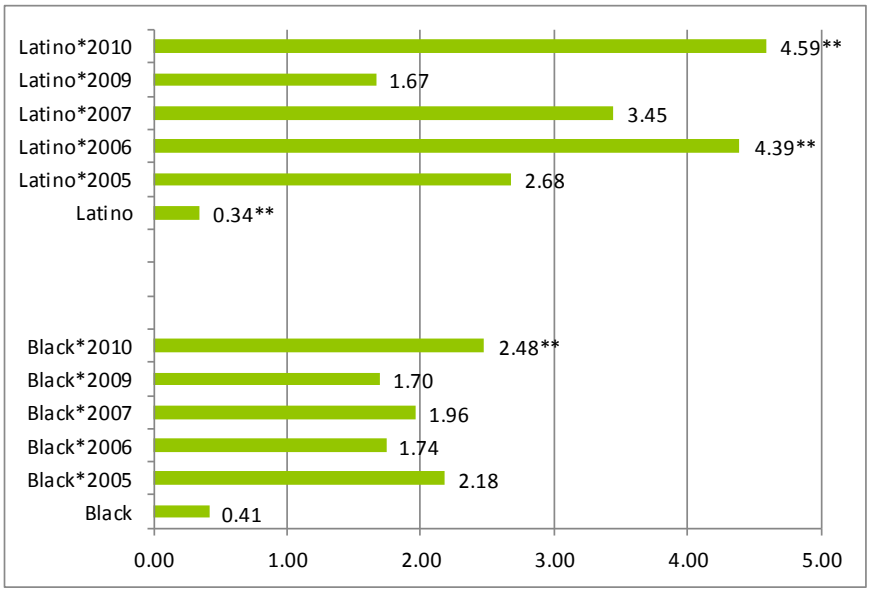
Figure 45 Glendale Homeownership Model Results with Race Year Interactions



* *P* < .10

Source: Tabulations by authors using Census ACS 2005–7, 2009–11.

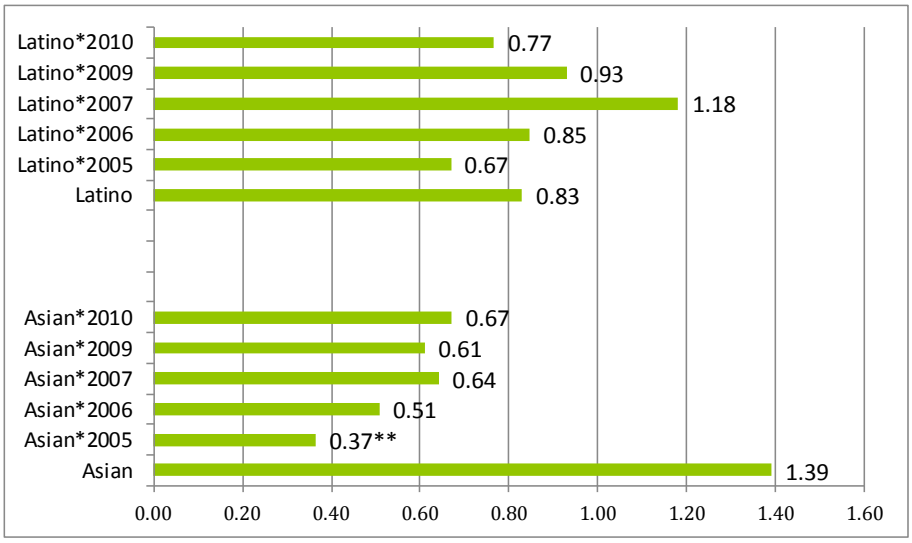
Figure 46 Inglewood Homeownership Model Results with Race Year Interactions



** *P* < .05

Source: Tabulations by authors using Census ACS 2005–7, 2009–11.

Figure 47 West San Gabriel Valley Homeownership Model Results with Race Year Interactions



** $p < .05$

Source: Tabulations by authors using Census ACS 2005–7, 2009–11.

Appendix B: Foreclosure Models

Table 54 Logistic Regression Model of Foreclosures among Owners Who Took Out Loans at Purchase in Downey, 2007–12 (n = 6,915)

	Beta/Odds	S.E.	Sig.	Log Odds
Non-Hispanic White Owner*	-.335	.131	.010	.715
Other Race Owner	-.111	.094	.234	.895
Sales Price (in 10ks)	.013	.002	.000	1.013
Down Payment (in 1,000s)	-.009	.001	.000	.991
Income-to-Loan Ratio	-.095	.567	.867	.910
Second Loan	.018	.096	.848	1.019
Notice of Default	1.182	.074	.000	3.260
Purchased in 1999	-1.325	.210	.000	.266
Purchased in 2000	-1.294	.206	.000	.274
Purchased in 2001	-1.200	.192	.000	.301
Purchased in 2002	-1.128	.177	.000	.324
Purchased in 2003	-.914	.152	.000	.401
Purchased in 2004	-.529	.125	.000	.589
Purchased in 2006	.377	.107	.000	1.458
Purchased in 2007	.109	.123	.375	1.116
Constant	-1.634	.225	.000	.195

* Omitted racial/ethnic category was Latino.
Source: Tabulations by authors using DataQuick.

Table 55 Logistic Regression Model of Foreclosures among Owners Who Took Out Loans at Purchase in Glendale, 2007–12 (n = 11,851)

	Beta/Odds	S.E.	Sig.	Log Odds
Latino Owner*	.454	.104	.000	1.575
Asian Owner	.550	.104	.000	1.733
Other Race Owner	-18.643	12898.627	.999	.000
Sales Price (in 10ks)	.008	.002	.000	1.008
Down Payment (in 1,000s)	-.007	.001	.000	.993
Income-to-Loan Ratio	.391	.252	.120	1.478
Second Loan	.006	.093	.945	1.006
Notice of Default	2.025	.074	.000	7.574
Purchased in 1999	-1.189	.210	.000	.304
Purchased in 2000	-.847	.194	.000	.429
Purchased in 2001	-1.031	.189	.000	.357
Purchased in 2002	-.805	.166	.000	.447

Purchased in 2003	-.477	.143	.001	.621
Purchased in 2004	-.180	.123	.142	.835
Purchased in 2006	.256	.108	.018	1.292
Purchased in 2007	-.050	.117	.671	.951
Constant	-2.713	.164	.000	.066

* Omitted racial/ethnic category was non-Hispanic white.

Source: Tabulations by authors using DataQuick.

Table 56 Logistic Regression Model of Foreclosures among Owners Who Took Out Loans at Purchase in Inglewood, 2007–12 (n = 4,985)

	Beta/Odds	S.E.	Sig.	Log Odds
Non-Hispanic White Owner*	.140	.125	.262	1.150
Latino Owner	.167	.096	.082	1.182
Other Race Owner	-.013	.135	.921	.987
Sales Price (in 10ks)	-.002	.004	.626	.998
Down Payment (in 1,000s)	-.005	.001	.000	.995
Income-to-Loan Ratio	-.650	.551	.238	.522
Second Loan	.025	.106	.812	1.026
Notice of Default	1.762	.082	.000	5.822
Purchased in 1999	-1.401	.254	.000	.246
Purchased in 2000	-1.185	.228	.000	.306
Purchased in 2001	-.851	.204	.000	.427
Purchased in 2002	-.754	.187	.000	.470
Purchased in 2003	-1.075	.186	.000	.341
Purchased in 2004	-.538	.147	.000	.584
Purchased in 2006	.030	.121	.806	1.030
Purchased in 2007	-.228	.154	.138	.796
Constant	-1.374	.299	.000	.253

* Omitted racial/ethnic category was black/African American.

Source: Tabulations by authors using DataQuick.

Table 57 Logistic Regression Model of Foreclosures among Owners Who Took Out Loans at Purchase in West San Gabriel Valley, 2007–12 (n = 6,303)

	Beta/Odds	S.E.	Sig.	Log Odds
Latino Owner*	.595	.147	.000	1.813
Other Race Owner	.270	.166	.105	1.310
Sales Price (in 10ks)	.022	.006	.000	1.023
Down Payment (in 1,000s)	-.010	.001	.000	.990
Income-to-Loan Ratio	-1.350	1.241	.277	.259
Second Loan	.011	.171	.950	1.011
Notice of Default	1.994	.134	.000	7.345
Purchased in 1999	-1.083	.418	.010	.339

Purchased in 2000	-.748	.400	.062	.473
Purchased in 2001	-1.029	.402	.010	.357
Purchased in 2002	-.160	.279	.567	.852
Purchased in 2003	-.669	.284	.019	.512
Purchased in 2004	-.405	.214	.058	.667
Purchased in 2006	-.194	.180	.281	.824
Purchased in 2007	-.105	.211	.620	.901
Constant	-3.310	.487	.000	.037

* Omitted racial/ethnic category was API.

Source: Tabulations by authors using DataQuick.