

Asian American Homeownership and Foreclosure in East San Gabriel Valley: An Analysis of a Los Angeles County Community

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Executive Summary

From 2000 and 2005, we saw significant increases in the rates of homeownership, home appreciation, and home sales (Firestone and Ong, 2009; Stuart and Rosenthal, 2011; Schulman, 2012). In fact in 2000, homeownership rates were at the highest level than had ever been recorded, but by 2006 housing prices had begun to fall and delinquencies were on the rise. By 2007, a housing meltdown had been declared with a drop in homeownership rates and housing prices. 2007 to 2011 saw a continuation of the decline in homeownership and home prices and 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 of home values leading to nearly a \$7 trillion wealth loss (Schulman 2012). This housing market boom and collapse from its peak in 2005 to the meltdown in 2007 has both widened the racial wealth gap and resulted in declining home equity. The decline in the housing market is particularly detrimental to people of color because not only do they hold the majority of their wealth in housing, but they are also disproportionately represented in parts of the country that were hit hardest by foreclosure. Thus, this change in the housing economy continues to widen the racial wealth gap and overall economic opportunities for people of color.

Interesting enough, while for the most part the racial gap has persisted over time, a study by Patraporn, Ong, and Houston (2009) found that Asian Americans were able to close the racial wealth gap with non-Hispanic Whites by 2005 due mostly to increases in home equity. However, by 2009 Asian Americans lost their gain in wealth, prompting further questions about the impact of the housing market boom and collapse.

Little is known about the impact of the housing market boom and collapse for Asian Americans and thus, a more refined analysis of what happened during this period would provide much needed insights into the nature and magnitude of the impacts, and the causes. This analysis would point us to possible interventions and solutions. The study focuses on examining Asian American homeownership and foreclosure in a region of Los Angeles County, we call the East San Gabriel Valley (ESGV). While this study focuses on a particular region in Los Angeles County, this report is the basis for further study that will look beyond Asian Americans and also look at individual and collective responses. We hope our study will inform the development of effective strategies to repair the damage of the housing bust and recession.

This study uses data from multiple sources and years to show a unique and complicated picture of homeownership and foreclosure within the Asian American community. We provide descriptive statistics and estimate two models for homeownership and one for home sales price using Census American Community Survey data, Census Decennial data, DataQuick and Home Mortgage Disclosure Act data. We focus on the overall period from 2000 to 2010 based

on data available for the data sets previously mentioned. Our study is limited to examining the ESGV community in Los Angeles County which includes the following cities: Covina, Walnut, Diamond Bar, West Covina, Rowland Heights and the City of Industry. This community has a much higher homeownership rate than other parts of the County, but also a significant proportion of Asians, as well as, Latinos and non-Hispanic Whites for purposes of comparison and a thorough examination of homeownership and foreclosure.

Overall, findings for residents in ESGV show that Asian Americans or Asians experienced both a notable decline in homeownership and household income from 2007 to 2010. Interestingly enough, this decline in homeownership was not coupled with a higher foreclosure or default rate compared to other racial groups. We also find that during the boom, Asians pay more for homes of similar quality in terms of square feet, number of bedrooms, etc. compared to non-Hispanic Whites. Asians also appear to take on greater housing burden and risk with a greater proportion of all Asians contributing more than 50% of their income to housing and having a higher average mortgage loan compared to all other racial groups. The combination of findings points to the importance of examining Asians separately from other race groups and the unique nature of their experience as homeowners.

1. Introduction

From 2000 to 2010, we have seen tremendous changes in the housing market and overall 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 high point in 2005 and 2006 when homeownership and home sales peaked (Shulman 2012; Stuart and Rosenthal, 2011). However, by 2007 the housing market collapsed with a notable decline in home prices and homeownership rates (Firestine and Ong, 2009; Stuart and Rosenthal, 2012). 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 of home values leading to nearly a \$7 trillion wealth loss (Schulman 2012). In addition, estimates by Kochhar, Fry, and Taylor (2011) indicate that median net worth in assets other than home equity fell by only \$3,522 from 2005 to 2009 implying that assets in home equity were the primary reason for the decline in wealth.

Such a decline in assets and home equity has also contributed to a widening of the racial wealth gap. As Kochhar, Fry and Taylor (2011) point out, between 2005 and 2009 the median value of assets declined by only 16% for whites, while the decrease for minorities was significantly higher at 54% for Asians, 66% for Latinos and 53% for African Americans.¹ Median home equity also declined less for Whites than for other groups; 18% for Whites, 23% for African Americans, 32% for Asian Americans, and 51% for Latinos (Kochhar, Fry, and Taylor, 2011). The decline in home equity for people of color is particularly detrimental because not only do they hold most of their wealth in their homes, but they are also disproportionately located in areas hit hardest by declines in home values and foreclosures.

The five states that had the steepest declines in home prices (median home prices decreased by more than 30%) from 2005 to 2009 also had more than two fifth of the nation's Latino and Asian households. These states, Arizona, California, Florida, Michigan and Nevada have only one fifth of the nation's white or black households resided in those states. Furthermore, an estimated 40% to 60% of homeowners in three of those five states were underwater in their mortgages in 2009; California, Florida and Nevada (Schwartz 2010). Thus, it is clear that various racial groups may be impacted by the housing market collapse differently and uniquely.

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% from 2005 to 2009.

Indeed, while the housing boom positively impacted Asian wealth and Asian Americans closed the wealth gap with non-Hispanic Whites by 2005, by 2009 they had lost their position at the top of the wealth ladder (Kochhar, Fry and Taylor, 2011).² In 2005, Patraporn, Ong and Houston (2009), found that the median household wealth for Asians had been greater than the median for white households. They also concluded that Asians were able to close the gap due to housing appreciation and their geographic concentration in areas where home prices increased the most. This gain also came at the cost of taking on greater financial burden (Firestine and Ong 2009). Because the gains in wealth came predominantly from housing, Patraporn, Ong, and Houston (2009) stated that furthering monitoring would be needed to examine whether such a close in the wealth gap would be stable given the decline in housing prices particularly in large metropolitan areas where Asian Americans are geographically concentrated. Because Kochhar, Fry, and Taylor (2011) found that Asians had lost their position at the top of the wealth ladder, indications are that the closing of the wealth gap in 2005 was not stable. This finding leads us to more questions about the impact of the housing market boom and collapse on Asian American wealth.

Little is known about the impact of the housing market boom and collapse for Asian Americans and thus, a more refined analysis of what happened during this period would provide much needed insights into the nature and magnitude of the impacts, and the causes. This analysis will help point us to possible interventions and solutions. In order to better understand the impact of the housing boom and housing market collapse and potential interventions and solutions, this report asks the following questions for the time period between 2000 and 2010:

- Were there changes in homeownership rates? How do these changes compare by race/ethnicity?
- Are there changes in housing burden, as defined by proportion of income applied to housing and average mortgage loan by race/ethnicity?
- Are there differences in the propensity to default and foreclosure by race/ethnicity?
- Are there differences in subprime lending by race/ethnicity?

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%, compared to only 60% for non-Hispanic White homeowners, a difference of 13% (Patraporn, Ong, and Houston 2009). In the fifteen metropolitan areas with the largest absolute number of Asians which make up about two-thirds of all Asians in the U.S., mean values of owner-occupied housing units increased by 78%, while the rest of the nation experienced only a 54% increase (Patraporn, Ong, and Houston 2009). 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).

- Is there a difference in home purchase by race/ethnicity after controlling for loan size, and housing quality? For instance, do Asian Americans pay more for a home of the same quality as other racial groups in terms of square feet, number of bedrooms, etc.?

This study uses data from multiple sources and years to show a unique and complicated picture of homeownership and foreclosure within the Asian American community. We provide descriptive statistics and estimate two models for homeownership and one for home sales price using Census American Community Survey data, Census Decennial data, DataQuick and Home Mortgage Disclosure Act data. We focus on the overall period from 2000 to 2010 based on data available for the data sets previously mentioned. Our study focuses on examining a region within Los Angeles County we call the East San Gabriel Valley. This region includes the following cities: Covina, Walnut, Diamond Bar, West Covina, Rowland Heights and the City of Industry. This region has been hit hard by the housing market collapse and is a place where we see large declines in housing value coupled with significant and fairly substantial proportion of Asians, Latino and non-Hispanic White residents and high homeownership rates.

While this study uses a case study approach to focus on understanding Asian American homeownership and foreclosure, we hope to develop a method and model to examine other racial groups within and outside of California. Furthermore, this report also includes a comparative analysis of Asian Americans relative to Latinos and non-Hispanic Whites. Assessing how Asian Americans and Latinos are faring in this Los Angeles County region can provide invaluable neighborhood specific information. Thus while the report focuses on this region within Los Angeles County, the implications of the findings informs 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 EARN, but the methodology can be replicated in other states for other racial groups 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 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 area of focus, East San Gabriel Valley in Los Angeles County. In Part III, we report the results from our data analysis. To conclude the report, we discuss the potential impact of our findings and implications for future research.

2. Methodology and Data

In order to answer the questions outlined above, we relied on many types of information on housing purchases, loans, foreclosures, and defaults by race/ethnicity. However, there currently is no one data set that contains all of these variables. 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 Home Mortgage Disclosure Act (HMDA) data set includes loan type and race in addition to loan amount and while HMDA data contains racial/ethnic information that information was not available in the data sets with purchase price or foreclosure information. In order to assemble a more complete picture of home ownership, housing burden, and foreclosure for East San Gabriel Valley residents who purchased home during the most recent housing boom, we gleaned from and, where possible, merged data from three primary data sources: HMDA, DataQuick, and the Census³

2.1 Data Sets

The Home Mortgage Disclosure Act (HMDA) was enacted by Congress in 1975 and has been implemented by the Federal Reserve Board and the Consumer Financial Protection Bureau (CFPB). 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, 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, the East San Gabriel Valley records were limited to borrowers who lived in census tracts that make up the East San Gabriel Valley Public Use Microdata Areas (PUMAs) for the period between 2004 to 2007.

Decennial Census and the Census American Community Survey (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 2006-2010. ACS data is not available before 2006.

³ This would involve the purchase of additional sales, default and foreclosure data from DataQuick for the study areas. Other data are available as public use data sets. Specific Census data sets are the Decennial Census and American Community Survey.

Table 1. Description of Data Sets Used

Data Set Name	Major Variables and Concepts	Years
US Census Bureau American Community Survey (ACS) Public Use Microdata Sample (PUMS)	Household income, race, homeownership, housing burden (percent of income going to housing), headship	2006-2010
US Census Bureau (Decennial)	Household income, race, homeownership, housing burden (percent of income going to housing)	2000
DataQuick	Sale price, unit characteristics, default, foreclosure	Sales, 2004-2007 Default, 2006-2009 Foreclosure, 2007-2010
Home Mortgage Data Act (HMDA)	Type of loan, loan amount, subprime loans	2003-2007
Los Angeles County Tax Assessor Parcel Data	Land value, year built, improved net value	2008
US Census Bureau Surname list	Race/ethnicity, surnames, race probability	2007

In comparison, the decennial census researches a significantly higher percentage of the population every time 10 years. This short form questionnaire aims to count all residents living in the United States as well as asking for basic information such as sex, age, race and housing tenure. We used the Census Public Use Microdata Areas (PUMAs) 05800, 06107, and 06108 to construct the East San Gabriel Valley dataset. We use 2000 Census data because it is far enough before the peak of the housing boom, but after the last recession period.

DataQuick data set includes comprehensive property characteristics for the top 1000 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, etc. Census tracts that fell within the three East San Gabriel Valley PUMAs were used to purchase DataQuick data for East San Gabriel Valley.

2.2 Cohort Selection

We selected East San Gabriel Valley residents who purchased single-family homes during the housing boom starting in 2004 to its peak in 2005 and 2006 to the beginning of the bust in 2007 from the DataQuick sales dataset. The latest purchase or sale for each single-family unit was selected from this dataset; earlier purchases for the same units were excluded. This is the cohort of buyers that we followed in subsequent years. Notice of defaults (a formal filing with the County that the owner has been behind in payment and the first step in the foreclosure process) from 2006 through 2009 and foreclosures (transfer of deed) the in 2007 through 2010 were merged with the sales dataset using unique IDs available in all DataQuick datasets. The final dataset includes price and unit characteristics information of single-family homes purchased in East San Gabriel Valley in 2004-2007, and where applicable, notice of defaults in 2006-2009 and foreclosures 2007-2010 for each of these units.

2.3 Surname Match

Unlike the HMDA dataset, the DataQuick datasets do not identify the race/ethnicity of the buyers/property owners. Surnames, however, are listed. Using a surname list that indicates the likelihood a person with that surname is White, Black, Asian/Pacific Islander, American Indian or Alaska Native, Latino/Hispanic, and Other, we imputed the race/ethnicity of property owners in the DataQuick merged dataset. Owners with a surname that has a 67% or greater probability of being part of a racial/ethnic group were assigned to that group. In other words, owners with a surname that has a 67% or greater probability of being Asian were assigned as Asian.⁴

2.4 Empirical Models

Homeownership rates and housing burden levels by race/ethnicity were estimated using Census 2000 and American Community Survey 2006-2010 PUMS microdata. In some cases, statistics were calculated by year, while others represent the multi-year average from 2006-2010.⁵ Homeowners were identified as household heads age 18 or above who owned property free and clear or with a mortgage or loan. Housing burden is defined by the Census Bureau as

⁴ We also acknowledge that our probabilistic match by surname may cause some Filipinos to be categorized as Latino due to Filipino Spanish surnames that may overlap with Latino surnames. We expect that the inclusion of Filipinos with Latinos may not change the results for Latinos and would bias the results for Asians upwards. Meaning if Filipinos were included with Asians opposed to Latinos, we may see a higher foreclosure rate and/or notice of default.

⁵ Multi-year estimates are designed to provide estimates that describe the average characteristics of an area over a specific time period. For more information, see http://www.census.gov/acs/www/guidance_for_data_users/estimates/.

“selected monthly owner costs as a percentage of household income during the past 12 months.” To better understand homeownership patterns between racial/ethnic groups, we conducted two homeownership models, accounting for differences in socioeconomic status, household size, neighborhood, and housing characteristics. The first model determines the likelihood a household head owns his/her own, while the second model estimates the likelihood an individual adult is a non-household head, a household head that rents his/her home, or a household hold head that owns his/her home. To test whether Asian and Latino buyers paid more for their homes compared to non-Hispanic White buyers, we conducted a linear regression to model purchase price. Independent variables included unit characteristics such as square footage, number of bedrooms and bathrooms, year built, year purchased, city variables to allow for neighborhood factors, and race/ethnicity variables. Year and race interaction variables test changes in prices paid by race/ethnicity from year to year.

Loan information statistics from the Housing Mortgage Disclosure Act (HMDA) dataset offered additional information about housing burden and subprime lending in East San Gabriel Valley, which provide context to foreclosure rates in the area.

2.5 Sample Size

The merged DataQuick dataset (with race/ethnicity assignments) has a total of 10,421 records. Asian buyers represented 29% of ESGV residents who purchased during the housing boom; Latinos made up 49%, and non-Hispanic Whites made up 14% of buyers. Notice of default rates were calculated as the proportion of units/buyers in this cohort that received a notice of default in any of the years between 2006 and 2009. The foreclosure rate is the proportion of buyers in the cohort who underwent foreclosure anytime between 2007 and 2010. The HMDA dataset for East San Gabriel Valley includes 13,785 loan originations for home purchases.

2.6 Study Limitations

While the proposed sample taken from East San Gabriel Valley is not representative, 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 at the neighborhood level. As mentioned, the objective is to develop a method to analyze the impact of foreclosures on Asian Americans with the hopes that the method that can be applied in future research that 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 inter-group differences (Asians, Latinos and others, based on surnames). 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.

3. East San Gabriel Valley

As mentioned in the introduction, this study examines one geographic region in Los Angeles County, the East San Gabriel Valley (ESGV). This region is comprised of three Census Public Use Microdata Areas that represent the following cities: West Covina, Rowland Heights, Diamond Bar, Walnut, and parts of the City of Industry, La Habra Heights, and Covina. There are two major reasons for focusing on this region. First, the racial diversity within this region allows for comparison across racial groups. The existence of a substantial, non-Hispanic White, Latino and Asian population makes an analysis of homeownership interesting as we are able to examine two distinct racial/ethnic populations. Second, this area has a large number of homeowners and a reasonable rate of foreclosure by which to better understand homeowner decisions and status.

ESGV is a fairly affluent community that is home to approximately 335,000 people. It is situated in the central east part of Los Angeles County bordered by the Interstate 605 on the west and State Route 57 on the east. Compared to Los Angeles County, this region is higher income, higher than average homeownership rate, and has a higher immigrant population and greater racial/ethnic diversity in terms of the proportion of various racial groups represented including non-Hispanic Whites. Nearly three quarters (72%) of its housing stock being single family homes and a large majority of ESGV homes are also owner-occupied (72%) compared to Los Angeles County (47%).

Table 2. 2010 East San Gabriel Valley and Los Angeles County Key Demographics

	East San Gabriel Valley	Los Angeles County
Race		
Latino	42%	48%
Non-Hispanic White	19%	28%
Asian	34%	14%
Bachelor’s degree or higher education	21%	29%
Foreign born	38%	36%
Speak English only	38%	43.2%
Median Household income	\$65,496	\$60,857
Average Household Size	3.3	3
Homeownership Rate	72%	47%
Median Home Value	\$450,000	\$546,500

Source: Census American Community Survey 2010

This geographic region is also highly diverse racially with a majority immigrant population with a majority of residents that speak languages other than English. This highly

Asians residing in them, they are not the majority. The majority for West Covina and Covina is Latino.

4. Statistical Overview

Asians in ESGV appear to have a uniquely distinct experience with homeownership compared to other racial groups. From 2006 to 2010, Asians suffered a greater decline in homeownership rate compared to Latinos and non-Hispanic Whites; Asian homeownership dropped by 7.8%, Latinos increased by 1.6%, and non-Hispanic Whites by .7%. They also experienced the largest decrease in mean household income (\$13,000) compared with other racial groups. While the decline in homeownership rate was higher for Asians, they do not have higher foreclosure and/or default rates compared to Latinos and non-Hispanic Whites in ESGV. Interestingly enough, despite having the lowest foreclosure rate of all groups, Asians have the highest rate of households that foreclose following going into default.

Asians also appear to be taking on the a higher housing burden and risk as they also have a greater proportion of households paying more than 50% of their income for housing and a higher than average loan amount compared to Latinos, non-Hispanic Whites and Others in ESGV. They are also more likely to pay more for a home of similar quality in terms of square feet, number of bedrooms, etc. Asian homes purchased are larger in size and higher in price compared to those homes purchased by all other racial groups. Approximately, 23% of Asians in ESGV have homes valued at \$750,000 or greater compared to non-Hispanic Whites at 14%, Latinos at 6.1% and Other race at 14.4%

4.1 Homeownership Characteristics

Similar to Los Angeles County and the country, ESGV experienced the effects of the housing market collapse in 2006-2007. This is partially evident in decreases in homeownership rates over the years as exemplified in the table below that highlights year to year homeownership rates from 2000 to 2010 (see Table 3). The homeownership rate increases slightly from 2000 to 2006, but then slowly declines from 2006 to 2010. In 2006, an estimated 74.2% of ESGV households owned single family homes and 26% rented. Four years later, homeownership dropped close to 4 percentage-points to 70.4%, and the proportion of renters increased to 29.6%.

Table 3 Tenure Status in ESGV 2000 & 2006-2010

	Start of Boom		Post Boom			
	2000	2006	2007	2008	2009	2010
Tenure						
Owner	72.1%	74.2%	73.3%	71.5%	70.9%	70.4%
Renter	28.0%	25.8%	26.7%	28.6%	29.2%	29.6%

Sources: Census 2000 PUMS & American Community Survey 2006-2010 PUMS

While there appears to be an overall drop in homeownership from 2006 to 2010 in ESGV, when we take a closer look at homeownership rates by race/ethnicity we see some differences in homeownership rate and not necessarily a progressive decline for all racial/ethnic groups. The non-Hispanic White homeownership rate dropped by .7% during this time period. In absolute terms, the number of non-Hispanic White householders who owned their homes in ESGV fell by 5,400 from 2006-2010. On the other hand, homeownership rates among Asian households decreased year to year (with the exception of 2008) and continued to slide in 2009 and 2010, while rates among other groups stabilized or increased. Interestingly enough Latinos increased their homeownership rate by 1.1% from 2006 to 2010. In comparison Asian and Other homeownership rate went down; 7.8% for Asians and 11.2% for Other. The overall decline of Asian householders who owned their homes was roughly 2,100. Homeownership rates also peaked in different years by race/ethnicity; non-Hispanic White homeownership peaked in 2007, Asian and Other in 2006, and Latinos in 2010.

Table 4. Homeownership by Race/Ethnicity in ESGV 2000, 2006-2010

	Start of Boom		Post Boom			
	2000	2006	2007	2008	2009	2010
Race/Ethnicity						
Latino	64.5%	65.2%	65.8%	64.2%	66.2%	66.1%
NH White	78.5%	79.7%	83.5%	73.5%	76.5%	79.0%
Asian	75.2%	78.9%	75.9%	78.4%	73.8%	71.1%
Other	59.6%	71.2%	50.5%	61.6%	59.3%	59.9%

Note: NH White is non-Hispanic White. We use the term Latino to describe individuals who are defined as Hispanic by the Census. Sources: Census 2000 PUMS & American Community Survey 2006-2010 PUMS

Despite the changes in homeownership from 2000 and 2006-2010, overall when you look at homeownership rates comparatively by, Asians and non-Hispanic Whites have higher homeownership rates than Latino and Other race households. For instance, non-Hispanic White homeowner was highest at 78.5%, followed by Asians with 75.2%, then Latinos with 64.5% and Other with 59.6%. This ranking in terms of homeownership rate continues throughout 2006 to 2010 with two exceptions. In 2008 the Asian homeownership rate was close to 5% higher than

non-Hispanic Whites and in 2006, Other homeownership rate exceed Latinos in 2006 by a little over 5%.

The trajectories of rates by race/ethnicity showed a complicated picture of homeownership that appears to vary by year and by race/ethnicity. In general, Asian and non-Hispanic White homeownership rates are above the average for the region while Latino and Other are below (see Table 4). Furthermore, the ranking of homeownership rates by race/ethnicity appear to be different based on year and race. Finally, while Latinos and non-Hispanic Whites experienced very little if any decline in homeownership rate from 2000 to 2010 and 2006 to 2010, Asians and Others experienced the most severe declines.

4.1.1 Asian Ethnicity and Homeownership

Another reason for declining homeownership rates may be due to Asian ethnicity. There may be events and/or characteristics specific to certain Asian ethnic groups that are disproportionately impacting the homeownership rate. When we take a closer look at homeownership by Asian ethnicity, we can see ethnic differences in homeownership rates with Asian Indians and Chinese at the top with close to 80% homeownership rate compared with Koreans who have the lowest rate at close to 61%. Japanese, Filipino, and Vietnamese Americans are in the middle with rates of approximately 67%, 73% and 78% respectively.

Table 5 Homeownership by Asian ethnicity, 2010

	Chinese	Filipinos	Indian	Japanese	Korean	Vietnames
Owner	79.8	72.7	79.9	67.2	60.8	77.9
Renter	20.2	27.3	20.1	32.8	39.2	22.1

Notes: NH White is non-Hispanic White. We use the term Latino to describe individuals who are defined as Hispanic by the Census. Sources: Census American Community Survey 2010 PUMS

It is interesting that while Japanese Americans typically have higher income levels than other Asian ethnic groups such as Filipinos and Vietnamese, their homeownership rate in this region of Los Angeles County is lower than these other two groups.

4.1.2. Household Head Status and Ownership Status

In Table 6 below we explore the proportion of household heads there are by race/ethnicity. We also offer a more detailed analysis of the proportion of household heads we find are homeowners and non-homeowners (renters) by race ethnicity. Headship rate is shown in Table 6 below represents the proportion of a population that is the head of a household opposed to being a regular member of a household. Presumably Asians and Latinos have lower headship rates because overall they have larger household size indicating that there are more individuals in a household, lowering the opportunity to be a head of household.

Table 6. Headship Rates and Ownership Status by Race/Ethnicity, ESGV 2006-2010

	All Households	Latino	NH White	Asian	Other
Headship Rate	39.6%	35.7%	50.2%	36.5%	46.3%
Household Head & Ownership Status					
Household head – Owner	28.5%	23.4%	39.4%	27.6%	27.9%
Household head - Non-Owner	11.1%	12.3%	10.8%	8.9%	18.4%
Non-household head	60.4%	64.3%	49.8%	63.5%	53.7%

Source: American Community Survey 2006-2010 PUMS

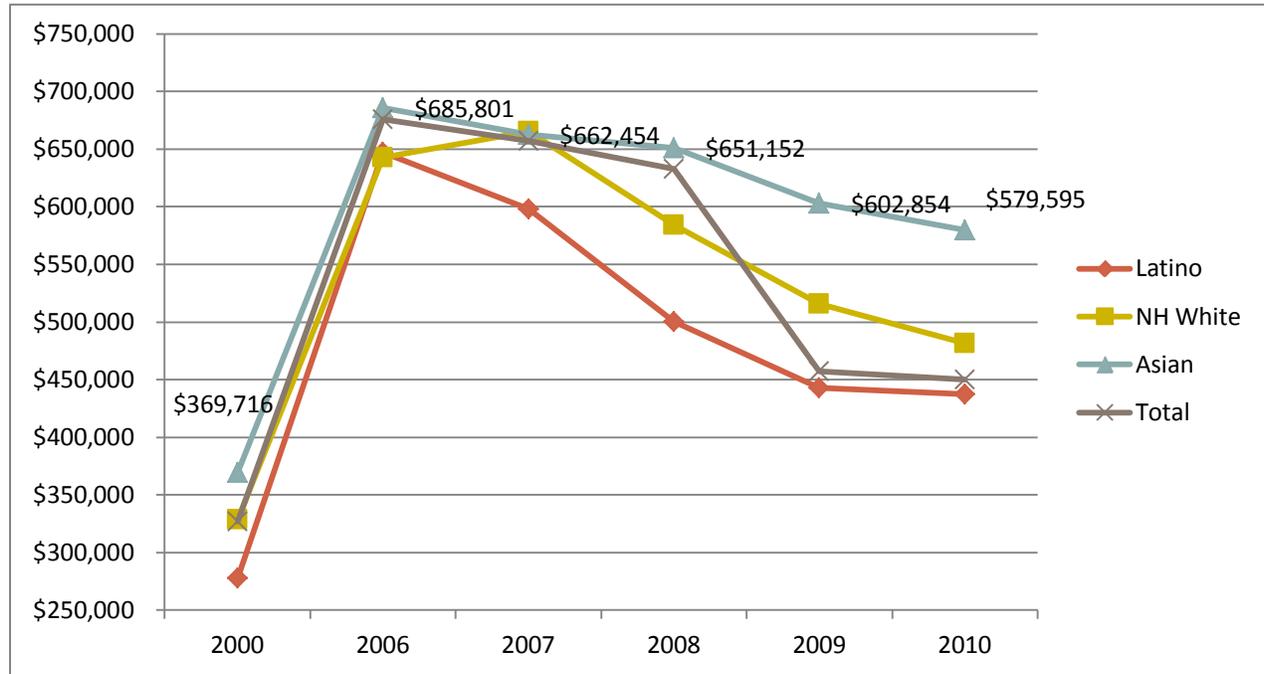
We find the overall headship rates for Asians and Latinos are significantly lower than non-Hispanic Whites. Furthermore, when we examine household heads that are also owners we find that rate to be lower for Latinos and Asians.

4.2 Housing Values

For those that own homes in the ESGV, housing values averaged nearly \$583,000 for single-family homes.⁶ Estimates also illustrate distinct differences in self-reported home values between Latino, non-Hispanic White, and Asian homeowners. Asian homeowners tended to own higher valued homes compared to other racial/ethnic groups.

⁶ While the self-reported housing values from the Census are coded as a categorical variable with a range of housing value reported by individuals, the authors tabulated the midpoint for each range and adjusted for 2010 dollars to calculate the average housing value.

Figure 2. Mean Housing Value (in 2010 dollars) by Race/Ethnicity and Year, ESGV, 2006-2010



Source: American Community Survey, 2006-2010 PUMS Note: Home values are self-reported and for single family homes only and adjusted for 2010 dollars.

Figure 2 above depicts the trajectory of home values in East San Gabriel Valley from 2006 through 2010. As with much of the country, average ESGV home values (self-reported) declined approximately 33%. Latino homeowners in ESGV reported a 32% decrease in property value, while homes owned by non-Hispanic Whites fell approximately 25%. Homes owned by Asian residents, however, fell at a more moderate pace (-15%) from 2006 through 2010. Asians had the smallest decline in overall self-reported property value. Interestingly, self-reported mean home values differences widened between racial/ethnic groups in East San Gabriel Valley during this period.

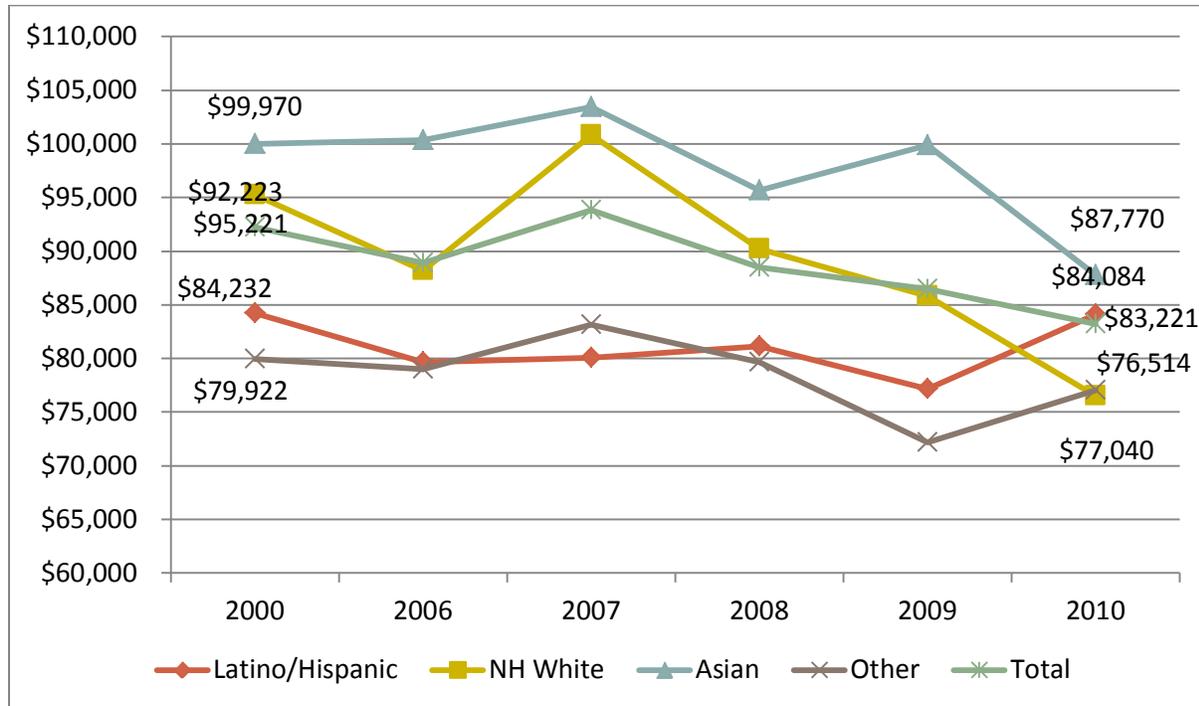
4.3 Household Income

One of the most significant factors influencing homeownership is income. For most homeowners household income is how they are able to maintain the purchase of a home and generate enough savings for a down payment to purchase a home. Household income is also important to the type of loan one may qualify for and the loan interest one may receive. In this section, we examine trends in household income over the same period of time we analyzed homeownership.

We start with a description of the mean and median household income for the ESGV region overall. Mean household income in ESGV was roughly \$88,200 across 2006-2010; median income was \$73,000. Over the five-year period, real household income fell 6%

(approximately -\$5,700). Figure 3 below illustrates differences in mean household income by race/ethnicity during this period. Compared to other racial/ethnic groups in ESGV, Asian households had the highest household incomes, followed by non-Hispanic white households. For both of these groups, mean household incomes fell \$12,000-\$13,000 (-13%) from 2006 to 2010. Latino households reported the lowest incomes in 2006 but surpassed mean household income for non-Hispanic Whites by 2010.

Figure 3. Mean Household Income (in 2010 dollars) from 2000 to 2010 by Race/Ethnicity



Source: Census 2000 PUMS and Census American Community Survey 2006-2010 PUMS

Mean household income in ESGV was roughly \$92,223 in 2000 and fell steadily from 2007 to 2010 from \$93,834 to 83,221. The pattern for median household income is similar to mean with a decrease in median household income across race/ethnicity from 2000 to 2010. The median household income is lower than mean household income for all years and across racial/ethnic groups. 2007 appeared to be an important year in that many groups peaked in terms of mean and median income. For instance, non-Hispanic White mean income was \$100,822, Asian mean income was \$103,464 and Other mean income was \$83,127. The exception to this trend was Latinos whose mean household income in 2007 was \$80,085 compared to the mean household income in 2008, \$81,124.

In examining median household income opposed to mean household income we see the same distribution and results in terms of ranking by race for median household income. This

ranking stays fairly consistent across years (see Table 7 below). Overall, median household income is consistently lower than mean income for all racial groups and years.

Table 7. Median Household Income (in 2010 dollars) by Race/Ethnicity, ESGV 2000 & 2006-2010

		All Households	Latino/Latino	NH White	Asian	Other
2000	Median	\$74,670	\$70,216	\$75,980	\$80,107	\$66,456
2006	Median	\$78,751	\$69,305	\$78,422	\$87,867	\$70,953
2007	Median	\$80,191	\$72,867	\$83,826	\$88,103	\$69,499
2008	Median	\$69,817	\$67,033	\$67,342	\$83,017	\$46,613
2009	Median	\$71,119	\$68,071	\$71,423	\$78,048	\$55,879
2010	Median	\$65,496	\$64,317	\$61,465	\$72,549	\$63,480

Sources: Census 2000 PUMS & American Community Survey 2006-2010 PUMS

4.4 Household size

Although Asian households reported greater average household incomes compared to white households, it should be noted that Asian households are larger on average. Asian households had an average of 3.3 persons, while non-Hispanic White households had an average of 2.6 persons. Latino households were largest compared to all other racial/ethnic groups with 3.8 persons per household. Asian (7%) and Latino (12%) households in ESGV were also more likely to have the presence of subfamilies (married couples with or without children or one parent and at least one child) living in a household as well as more workers per family compared to whites. Presumably, larger households with more workers and potential contributors would positively impact homeownership. However, this must be taken into consideration also based on the per capita income per person. In other words, there may be more persons in a household, but not necessarily contributing members. In fact a larger household size may disadvantage some households by increasing the burden of homeownership as there are additional competing costs with each additional household member.

4.5 Per Capital Income

The mean and median personal income by race/ethnicity shows that non-Hispanic Whites have the highest level of mean and median personal income exceeding the mean and median for Asian, Latino and Other race persons. Thus, when we examine per capita income compared to household income we see a change in the racial order with non-Hispanic Whites above Asians.

Table 8. Mean and Median Personal Income for Persons Age 18+ by Race/Ethnicity, ESGV 2006-2010

	All Persons Age 18+		All Persons Age 18+ Living in Owned Units	
	Mean	Median	Mean	Median
Asian	\$37,021	\$22,791	\$40,004	\$25,661
NH White	\$45,151	\$30,938	\$47,798	\$32,647
Latino/ Latino	\$30,356	\$ 21,967	\$33,713	\$24,592
Other	\$36,898	\$27,844	\$41,830	\$30,229

Source: American Community Survey 2006-2010 PUMS

For those persons living in owned units, the personal mean and median income is slightly higher than for all persons (including those who are renting), but the ranking by race remains constant with non-Hispanic whites having the highest mean and median income level. They are followed by those with Other race and then Asians with a mean of \$40,004, almost \$8,000 less than non-Hispanic Whites’ living in owned units personal income.

4.6 Overall Population Change

Interestingly, population estimates suggest that while ESGV’s population increased 2% from 2006 to 2010, the number of white residents decreased 31% (approximately -22,500). Latino residents increased 22%, Asian residents increased 2%, and the number of residents of another race increased 6%. A similar trend was observed among heads of households. While Latino and Asian householders increased 9% and 2% respectively, the number of white householders decreased 23% (approximately -6,600), suggesting an out-migration of white residents from the East San Gabriel Valley in recent years. This out-flux of white households combined with the decrease in number of white home owners may explain the increase in homeownership levels from 2009 for this group.

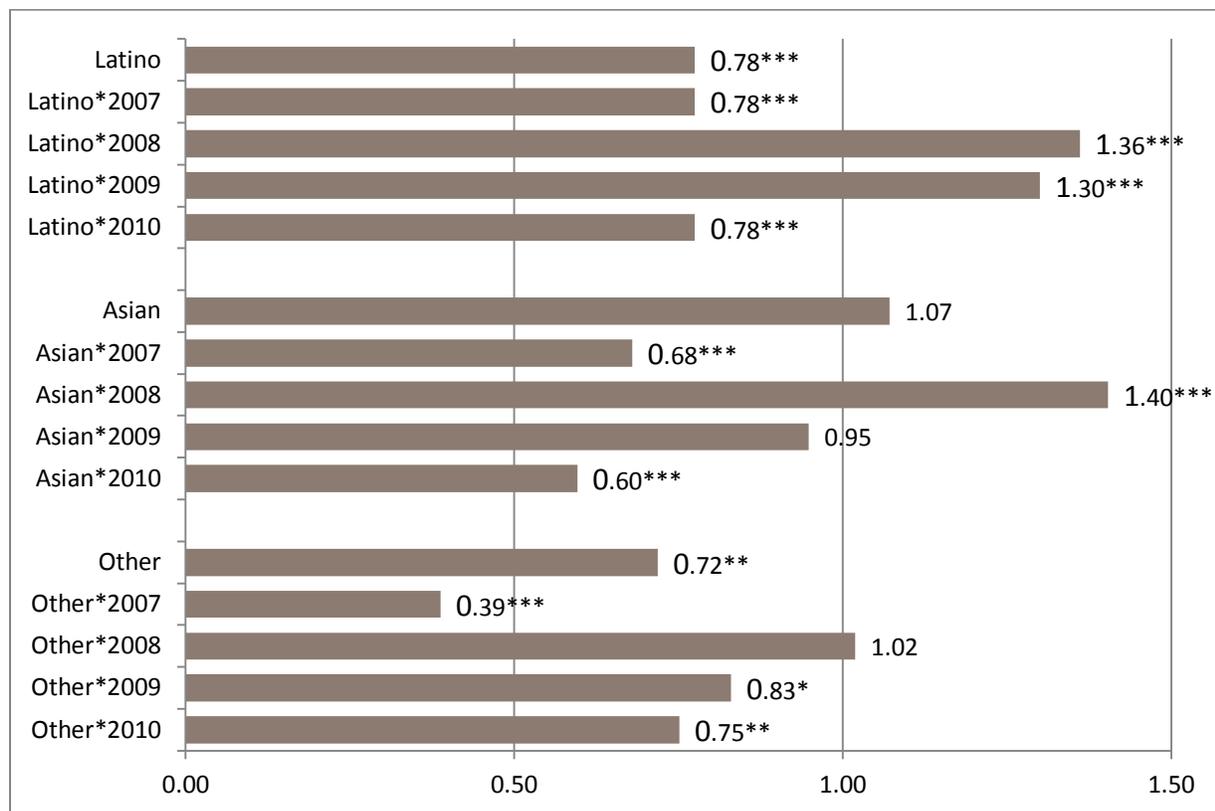
5. Detailed Analytical Results

5.1 Homeownership Model Results

Estimating the traditional model of homeownership, we find that most of the same factors significant including education, immigrant status, English language, marital status, age, household income, number of persons in the household, number of children, and race. There were two exceptions where the coefficients were not significant: (1) speaking English well opposed to very well and (2) being male opposed to being female. For this particular model we added three new sets of variables including year (from 2007 to 2010), puma (to represent the ESGV which is the area we are focusing) and the interaction between race and year. We found all years, except 2010 highly statistically significant at the $p < .0001$ level.

From the result of the logit model, we find that being race does impact homeownership and does so in a statistically significant way. We also find that the impact of race varies depending on year as well. While Asian alone is not significant, being Asian in a particular year (2007, 2008, or 2010) compared to 2006 is statistically significant at the $p < .0001$ level. The odds of owning a home if your Asian in 2007 and 2010 is less likely than a non-Hispanic White person holding all other factors constant. Interesting enough, the odds increase by 40% if Asian and it is 2008 (see odds ratio below in Figure 4).

Figure 4. Odds Ratios of Homeownership for Non-White Household Heads from Logit Regression, ESGV 2006-2010



** * $P < .001$, ** $p > .05$, * $P < .10$

Source: American Community Survey 2006-2010 PUMS

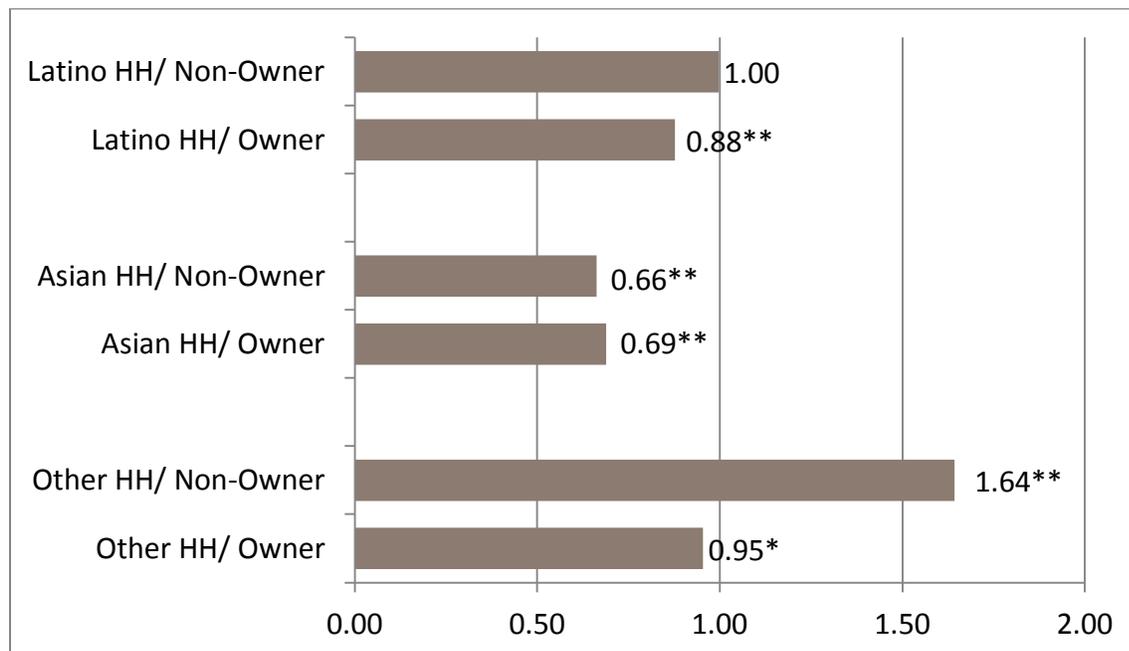
Being Latino alone lowers the odds of homeownership relative to being non-Hispanic White net of all other facts. This finding is statistically significant at the $p < .001$ level. The interaction between race and year found being Latino in each of the years was statistically significant. However, how the odds changed, whether they increased or decreased was due to the year. For instance, being Latino and the year being 2007 or 2010 decreases the odds of owning a home by 12% compared to non-Hispanic White holding all other factors constant. This finding is

significant at the $p < .01$ level. However, being Latino and the year being 2008 and 2009 improved the odds of being a homeowner compared to non-Hispanic Whites by 36% and 30%, respectively.

The findings for Other race are also mixed with for the most part being Other opposed to being non-Hispanic White controlling for all other factors decreases the odds of homeownership. In 2007 the odds of being a homeowner were significantly less by close to 61% compared to being non-Hispanic White net of all other factors. These findings were statistically significant except for the interaction between Other race and 2008. Overall, however, 2008 appeared to be a key year for Asians and Latinos which lead to a higher probability of homeownership.

We also estimated another model for homeownership that takes into consideration that some populations may have a greater likelihood of having multiple families under one household and/or a greater number of individuals in a household. Presumably, by having such characteristics and estimating homeownership using only the head of the household (more traditional model), one would overestimate the likelihood of homeownership. This is because you would apply the probability of homeownership to one person, the head of household to all others in the home. Yu and Myers (2010) have shown that using a model that takes into a household head status could prove more accurate and result in different findings particularly for racial minorities.

Figure 5. Odds Ratios of Household Head Status and Homeownership for Non-White Persons Age 18+ from Multinomial Regression, ESGV 2006-2010



* $P < .10$ ** $P < .01$

Source: American Community Survey 2006-2010 PUMS

Results from this regression show that Asians overall have lower odds of being head of household compared to non-Hispanic Whites holding all other factors constant. These findings are highly statistically significant at the $p < .0001$ level. Whether you are renter (non-owner) or owner, you are less likely to be head of the house if you are Asian. We report a similar finding for Latinos for homeowners. That finding is statistically significant. For Others, which is comprised mostly of Blacks, the likelihood of being head of the household as a renter is higher compared to non-Hispanic Whites and lower for head of household and owner. For both Latinos and Asians using this model demonstrates a lower “per capita” homeownership rate opposed to household homeownership rate.

5.2 Characteristics of Homes Purchased: Quality and Price

Now that we know what the likelihood is for certain racial groups to be homeowners as well as, factors that impact the likelihood of homeownership, we turn our attention to describing the homes purchased. What is the value of homes purchased by race? What kinds of homes are purchased by race/ethnicity? What is the quality of such homes in terms of building year, location, number of bedrooms, square feet, etc. And finally, what did homeowners pay for such homes? And is there a variance by race/ethnicity in terms of not only the types of homes purchased, but whether there is a difference in what one might pay based on race/ethnicity?

Generally, we find that Latinos make up the greatest share of home purchasers from 2004-2007. They are followed by Asians, Whites and then Other (see Table 9).

Table 9 Proportion of Home Sales by Race/Ethnicity and Year, ESGV 2004-2007

	2004-2007	2004	2005	2006	2007
Latino/ Latino	48.4%	44.8%	49.6%	55.8%	42.3%
NH White	13.7%	15.0%	13.7%	12.7%	13.0%
Asian	28.8%	30.3%	27.5%	22.9%	36.6%
Other	9.1%	9.9%	9.2%	8.6%	8.1%
All Purchases	10,421	3,036	3,133	2,419	1,833

Source: DataQuick Sales Extract 2004-2007

The average purchase price for all home purchases made between 2004-2007 was \$629,692 for the ESGV. The average purchase made by Asians during the same time period exceeded that average by over \$100,000 at \$734,836. NH Whites had the second highest average purchase price over the mean at \$638,864. Others followed NH Whites and Latinos in purchasing in ESGV had the lowest mean purchase price at \$559,620. From 2004 to 2007, purchase price across racial groups are lowest in 2004, peak in 2006 and then fall again by 2007.

Table 10 Mean Home Characteristics and Purchase Price by Race/Ethnicity, ESGV 2004-2007

	All Purchases	Latino	NH White	Asian	Other
Purchase Price	\$629,692	\$559,620	\$638,864	\$734,836	\$639,730
2004	\$557,490	\$480,947	\$583,106	\$652,619	\$553,617
2005	\$650,153	\$582,266	\$643,830	\$766,644	\$663,789
2006	\$672,075	\$603,310	\$700,182	\$805,759	\$712,157
2007	\$657,898	\$572,050	\$660,266	\$748,093	\$671,991
Characteristics of Purchased Homes					
Lot Size	25,952	29,453	13,179	22,131	38,401
Square Feet	1,857	1,598	1,900	2,248	1,930
Number of Beds	3.5	3.4	3.5	3.8	3.6
Number of Baths	2.3	2.1	2.4	2.8	2.4
Locations of Purchased Homes					
Covina	19.6%	26.8%	30.1%	4.1%	15.4%
Diamond Bar	14.3%	6.6%	18.6%	23.8%	18.4%
Hacienda Heights	1.1%	0.7%	0.6%	1.9%	1.0%
La Habra Heights	1.6%	1.2%	4.4%	0.9%	1.5%
La Puente	9.9%	16.1%	3.5%	3.8%	5.5%
Rowland Heights	13.1%	6.4%	5.9%	27.0%	15.3%
Walnut	12.9%	6.6%	10.0%	23.9%	15.3%
West Covina	26.8%	35.1%	25.2%	13.8%	26.6%

Source: DataQuick Sales Extract 2004-2007

5.3 Sales Price Model

In order to test whether Asians paid more for homes of similar quality in terms of location, we estimated a linear regression model which controlled for variables as suggested in prior research such as Cohen and Coughlin (2008), but also the interaction between race and year. All home quality characteristics were statistically significant except for number of bathrooms. Higher sales price is positively associated with homes with a higher number of square feet, more bedrooms and newer (built year). Being Asian opposed to non-Hispanic White net of all other factors resulted in a lower sales price, but that finding is not statistically significant. In comparison, being Latino resulted in a higher sales price compared to non-Hispanic Whites holding all other factors constant, but that finding is also not statistically significant. We did find that the year did have a positive effect on sales price and buying in 2005, 2006 or 2007 compared to 2004 meant that the sales price would be higher. This finding was statistically significant. Results from the interaction of race and year shows one statistically significant finding ---Asians in 2005 paid more, approximately \$25,000 more than non-Hispanic Whites net of all other factors

5.4 Housing Burden, Default and Foreclosure

Household incomes and home values tell an incomplete story about the landscape of default and foreclosure risk in East San Gabriel Valley. One key indicator of housing affordability, and in turn, risk of foreclosure, is the proportion of housing income paid to monthly housing costs. Thirty-percent (30%) has been recognized as the threshold for housing affordability. Housing burdens above 30% signal high housing burden for the household, and households paying over 50% of their monthly income to housing costs are considered extremely burdened. Figure 8 below illustrates housing burden levels for ESGV households by race/ethnicity over the 2006-2010 period. Compared to other racial/ethnic groups, households headed by non-Hispanic White residents were most likely to pay an affordable portion of income towards housing and least to have high or extremely high housing burden. Nearly three-fourths of non-Hispanic White households paid 30% or less of their income toward housing compared to 53% and 56% of Latino/Latino and Asian households, respectively.

Asian households were two times more likely than non-Hispanic White households to have extremely high housing burden. Roughly one of five (22%) Asian households in East San Gabriel Valley paid over half of their monthly income toward mortgage payments and other housing costs. Among Asian ethnic groups, extreme housing burden was especially high for Korean homeowners; 41% of Korean householders paid over half of their monthly income toward housing compared to 22% of Chinese and 16% of Filipino owners. These findings suggest that while Asian households on average reported greater household incomes compared to other groups, these households also tended to own higher-priced homes and have greater housing burden, which puts these households at-risk for defaulting should their income levels change.

Table 11 Housing Costs as a Percentage of Monthly Income by Race/ Ethnicity, ESGV 2000 & 2006-2010

	2000			2006-2010		
	Latino	NH White	Asian	Latino	NH White	Asian
Less than/equal to 30%	63.5%	75.2%	59.6%	53.3%	72.2%	56.2%
30% - 50%	17.5%	9.8%	14.4%	29.5%	17.0%	22.0%
Greater than 50%	19.0%	15.0%	26.0%	17.3%	10.9%	21.8%

Sources: Census 2000 PUMS & American Community Survey 2006-2010 PUMS. Note: NH White refers to persons who are non-Hispanic White.

Data on housing costs as a percentage of income by race/ethnicity demonstrates that both in 2000 and those homeowners from 2006 to 2010, Asians had the highest proportion of homeowners who paid more than 50% of their monthly income to their housing costs; 26% in

2000 and 21.8% for 2006-2010. In comparison, 19% of Latinos and 15% of Whites spend greater than 50% of their monthly income on housing in 2000. Similarly, from 2006 to 2010, 17.3% of Latinos and 10.9% of whites paid more than 50% of their income to housing compared to 21.8% of Asians.

Rate of burden also appears to vary by ethnicity and by year. Among Asian ethnic groups in 2000, Chinese, Indian and Koreans had a higher rate most burdened compared to Japanese, Filipino and Vietnamese homeowners. Japanese had only 11.15% of households in the most burdened category, lower than non-Hispanic Whites. In comparison, Chinese, Indian and Korean rates were 28.2%, 28.3% and 28.6% respectively. In 2006, some Asian ethnic groups showed tremendous burden that exceeds that of all racial groups and that for the Asian total as well; 40.8% of Koreans and 43.9% of Cambodians were in the highly burdened category spending over 50% of their income on housing. In 2009, 47.9% of Asian Indians were spending over 50% of their income on housing, 100% of Cambodians, 53% of Koreans and 38.5% of Thais. By 2010, it appears that some of these rates stabilize around the average rate of those spending more than 50% on housing except for Koreans; 42% spend more than 50% on housing and Filipinos with close to 25% spending more than 50% of their income on housing.

Part of the reason for the high housing burden for Asians is as mentioned in the previous section their likelihood of owning homes that were purchased at higher prices. Presumably, such higher prices required a higher loan amount as well. This appears to be true as exemplified by our analysis presented in the table below. For those who purchased a home in 2004 to 2007, the average loan amount was \$407,390, \$17,800 more than the total average.

Table 12. Originated Loan Characteristics by Race/Ethnicity, ESGV 2004-2007

	Latino/ Latino	NH White	Asian	Other	Missing	Total
Total Loans (2004-2007)	5,123	1,667	4,919	892	1,184	13,785
Subprime Loans						
Number	1,579	257	577	250	328	2,991
Percent	30.8%	15.4%	11.7%	28.0%	27.7%	21.7%
Mean Loan Amount	\$371,156	\$389,306	\$407,390	\$397,440	\$389,889	\$389,590

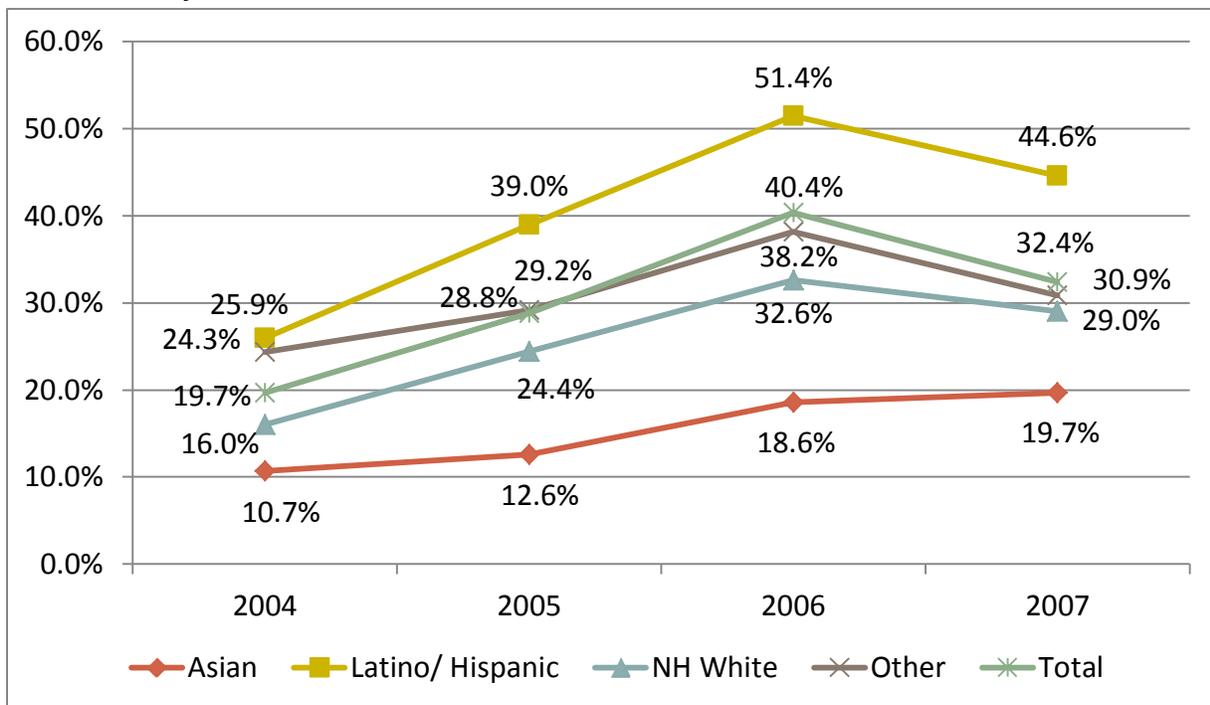
Source: HMDA 2004-2007

Average loan amount for non-Hispanic White was \$389,306 and for Latinos was \$371,156, both lower than the average loan amount for Asian homeowners. While the rate of subprime loans among Asians was lower relative to all other racial groups, the total number (577) was second to Latinos who had the highest rate of subprime loans at close to 31% and close to three times the number of loans (1,579) that Asians had that were subprime. Other race also had a notable

subprime mortgage percent of 28. Subprime loan is defined as a high cost loan where the rate spread is greater than 3 percentage points for the first lien loan.

From the data provided thus far we know that Asians take on housing burden and they have a higher housing burden compared to other racial groups. This high degree of burden does not align with the lower rate of default notices and foreclosure rates. However, Asians have the highest rate of foreclosure once notice of default indicating that they carry the high housing burden for as long as they can. In Figure 6 below we show that the percent of borrowers who received a notice of default in 2006-2009 following a fairly recent purchase in 2004 to 2007 varies by race.

Figure 6. Percent of Borrowers who Received a Notice of Default between 2006-2009 by Race/Ethnicity and Year Purchased, ESGV 2004-2007

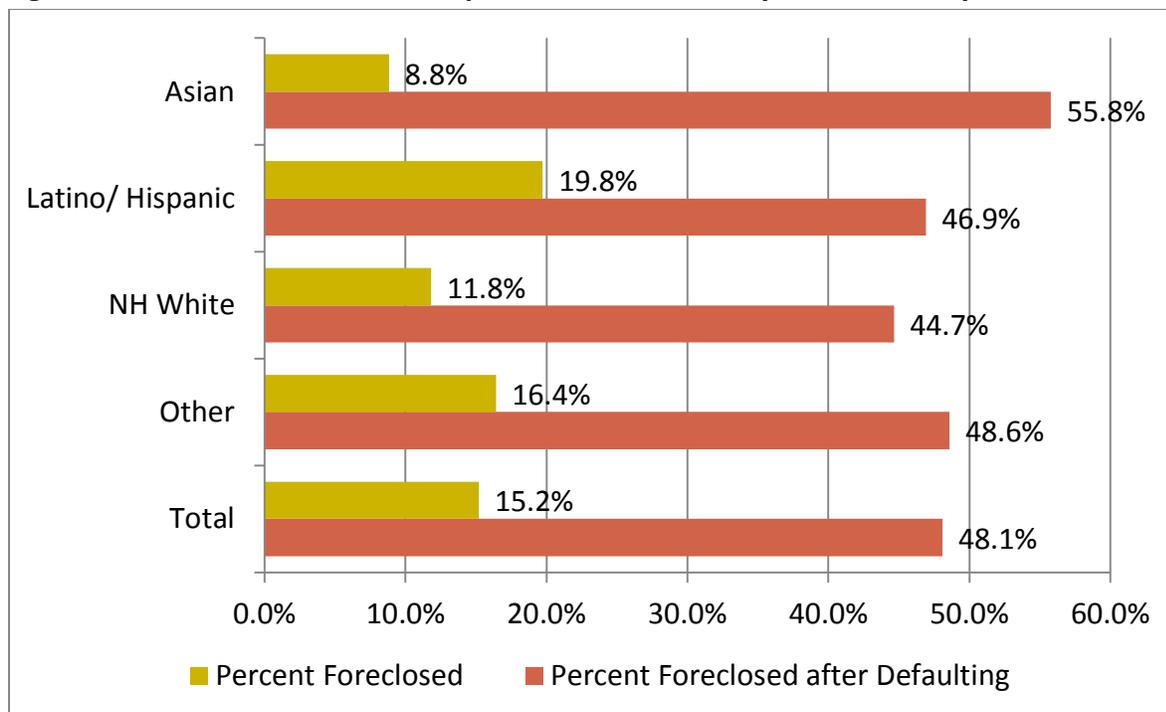


Source: DataQuick Sales 2004-2007 and Notice of Default Extracts 2006-2009

Latinos show the highest rate of default notices. Latinos are followed by Other, non-Hispanic Whites and then Asians. Overall, the trajectory shows the peak of default notices in 2006 with the biggest change for Latinos going from a notice of default rate of 25% in 2004 to 51% in 2006. The exception for the trend in notice of defaults going down from 2006 to 2007 is Asians who show a gradual increase in rate of default, even from 2006 to 2007.

Asians have the lowest foreclosure rate in ESGV at 8.8%, while Latinos have the highest at 19.8%. NH Whites have the lowest foreclosure rate. Interestingly enough while Asians have the lowest overall foreclosure rate, they have the highest rate of foreclosure after defaulting.

Figure 7. Percent of Foreclosed Properties in 2007-2010 by Race/Ethnicity, ESGV



Source: DataQuick Sales 2004-2007 and Foreclosure Extracts 2007-2010

Latinos follow Asians in terms foreclosure after defaulting, but that difference is close to 8%. Non-Hispanic Whites have the lowest rate of foreclosure following default. These results imply that there are racial differences in how and when homeowners decide to hang on and try to save their home opposed to when they might decide to foreclose. The high rate of foreclosures after defaulting among Asians implies a propensity to hang on to their homes longer in an attempt to possibly recover from default.

Conclusion

Overall, the experience of homeownership and foreclosure for Asian Americans appears distinct from other groups. Therefore, it is important to examine them differently and separately from other racial groups. Many of the decisions that Asians made during the period from 2006 to 2010 are not rational from paying more for homes of similar quality, carrying higher average loans despite experiencing lower household income, buying during a period of time when housing prices were climbing. It appears that many of the reasons why Asians appear to be uniquely distinct in the case of homeownership may be rooted in social and cultural aspects that need to be considered. These behaviors and expectations may help us better understand some of the answers to questions that arise from the analysis of this data from the ESGV.

As much other research does, this research also raises more questions for future study. Much of these questions can be answered by data, but rather require discussion with people and homeowners themselves to explain such questions. For instance, if the Asian foreclosure rate is so low compared to other racial groups, what does explain the reason for declines in homeownership rates for Asians? Are they more likely or able to sell their home successfully? Why do Asians have such a high rate of foreclose following notice of default? Could it mean that they wait so long to get help that by the time they receive a notice of default, the situation cannot be resolved? Are Asians less likely to foreclose because they are too optimistic about their home values? Why do Asians appear to be taking on greater risk than other groups? The rate of purchase and the quality of homes purchased demonstrate both high housing burden and risk. Why are Asians more willing to take on this burden and risk compared to other groups?

These are questions that will need to be explored through more qualitative approaches such as focus groups and interviews. We intend to do so with our future research. It is through these focus groups and interviews that we hope to further shed light on the answers to some of these questions. Any interventions and possible services and programs may need to go beyond homebuyer education, but possibly tackle some cultural attitudes and behaviors related to being Asian American including the propensity for risky behavior as documented in the gambling literature (Lee and Zane 1998; Sue) and to “losing face” and being shameful of losing a home (Park 2006).

References

Bocian, D., Li W., Reid, C. and Quercia, R. (2011). *Lost Ground, 2011: Disparities in Mortgage Lending and Foreclosures*, Center for Responsible Lending, November

Cohen, J. Coughlin, C. (2008). "Spatial Hedonic Models of Airport Noise, Proximity and Housing Prices" *Journal of Regional Science* Vol.48 (5)

Firestine, Theresa and Paul Ong (2009). Racial/Ethnic Variation in Homeowners' Financial Burdens, 2000-2007 (Working Paper). Retrieved from UCLA Ziman Center for Real Estate website: <http://www.anderson.ucla.edu/Documents/areas/ctr/ziman/2009-03.pdf>

Joint Center for Housing Studies. (2011). *The State of the Nation's Housing 2011*. Cambridge, MA: Joint Center for Housing Studies, Harvard University.

Haurin, D. and Rosenthal S. (2005). The Influence of Household Formation on Homeownership Rates Across Time and Race, U.S. Department of Housing and Urban Development, October

Kochhar, R., Fry, R. and Paul Taylor,P. (2011). *Wealth Gaps Rise to Record Highs Between Whites, Blacks and Latinos*, Pew Research Center.

Lee, Lee C. (Ed); Zane, Nolan W. S. (Ed), (1998). *Handbook of Asian American psychology.*, (pp. 527-554). Thousand Oaks, CA, US: Sage Publications, Inc, xi, 587 pp.

Park, Samuel, Englar-Carlson, Matt (Ed); Stevens, Mark A. (Ed), (2006). *In the room with men: A casebook of therapeutic change.* (pp. 151-173). Washington, DC, US: American Psychological Association, xxiii, 363 pp.

Patraporn, R. , Ong P., and Houston, D. (2009). Closing the Asian-White Wealth Gap? *Asian American Policy Review*, 18:35-48.

Schwartz, A. (2010). *Housing Policy in the United States*, Second Edition. New York, NY: Routledge.

Schwartz, M. and Wilson E. (2006). Who Can Afford To Live in a Home?: A look at data from the 2006 American Community Survey. US Census Bureau. Online paper, accessed on 07/21/2012. <http://www.census.gov/hhes/www/housing/special-topics/files/who-can-afford.pdf>

Shulman, D. (2012). Rebuilding the Housing Economy: The Multi-Family Boom Will Lead to a Rebound in Homeownership UCLA Ziman Center for Real Estate. (UCLA Economic Letter August). Retrieved from the UCLA Anderson School website: http://www.anderson.ucla.edu/Documents/areas/ctr/ziman/UCLA%20Economic%20Letter_Shulman_8-15-12.pdf

Stuart, G. and Rosenthal S. (2011) “Homeownership Boom and Bust 2000 to 2009: Where Will the Homeownership Rate Go From Here?” (Research Institute for Housing America Paper No. 11-03) Retrieved from Social Science Research Network website: <http://ssrn.com/abstract=1885564>

Zhou, Y. and Myers D. (2010). Misleading Comparisons of Homeownership Rates when the Variable Effect of Household Formation Is Ignored: Explaining Rising Homeownership and the Homeownership Gap between Blacks and Asians in the US *Urban Studies*. London: November. Vol. 47 (12).