

**Immigration and the New Jersey Housing Market
2001-2010**



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Executive Summary

The purpose of this study is to analyze the impact that immigration has on the New Jersey housing market. Toward this end the study will analyze the personal and household characteristics and housing outcomes of three groups of households. The first group consists of households that are headed by a U.S. citizen and that have lived in New Jersey for longer than one year. The second group consists of households that are headed by a non-U.S. citizen and that have lived in New Jersey for longer than one year. The final group consists of households that are headed by a non-U.S. citizen and that moved to New Jersey from another country during the past year. The goal of this study will be to determine both how immigrant and non-immigrant households compare to one another but also how immigrant outcomes change as they spend more time in the United States.

This study makes use of the Public Use Microdata Sample from the U.S. Census Bureau's American Community Survey. This study will make use of the ACS for every year from 2001 to 2010 (the most recent year that is currently available).

The first chapter of the report analyzes the country of origination for households that are headed by non-U.S. citizens and moved to New Jersey from another country during the year preceding each survey year. The main result from this chapter is that approximately one-sixth of the households who move to New Jersey from another country come from India.

The second chapter analyzes the household sizes, household incomes, labor market outcomes, and educational attainment of the three groups. The primary findings in this chapter are:

- Immigrant household sizes are larger than those of non-immigrant households.
- New immigrant households have larger households than immigrant households who have lived in New Jersey for longer than one year.

- Households headed by non-citizens tend, on average, to have the highest average and median incomes. However, new immigrant households are highly volatile and, because of this, there are years in which new immigrant incomes are higher than those of non-immigrant households.
- New immigrant workers have lower labor force participation rates and higher unemployment rates than the other two groups.
- Non-recent immigrant workers have higher labor force participation rates and higher unemployment rates than non-immigrant workers.
- New immigrants have educational attainment levels that are substantially higher than both non-immigrant and non-recent immigrant households.
- The educational attainment levels of non-recent immigrant workers are much closer to those of non-immigrant workers which suggests that a large percentage of the most highly educated new immigrants leave the United States.

The third chapter of the study analyzes the housing outcomes of the three groups. This chapter analyzes the homeownership rates, housing values, rents, and affordability levels of the groups. The main results from this chapter are:

- Non-immigrant households have much higher homeownership rates than immigrant households.
- Non-recent immigrant households have higher homeownership rates than new immigrant households but their homeownership rates are still far below those of non-immigrant households.
- Recent immigrant households who own their homes tend to own high value homes but the small sample sizes for new immigrant owners makes it difficult to determine whether their values are significantly higher than those of non-immigrant owners.
- New immigrant renters pay higher rents than the other two groups.
- The affordability levels for renters are comparable for all three groups.
- New immigrant households who own their homes have lower levels of affordability than the owners in the other two groups.

The final chapter of the study (chapter 4) analyzes how immigrant incomes and homeownership rates change as immigrant households live in the U.S. for a longer period of time. The result is that there is some support for the hypothesis that immigrant incomes increase over time. However, the support for this result is not unambiguous and any increases that occur appear to be small. There is, however, very strong support for the conclusion that immigrant homeownership rates increases rapidly with time spent in the U.S.

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Chapter 1: Introduction

The purpose of this study is to evaluate the impact that immigration has had on the New Jersey housing market between 2001 and 2010. Toward that end, the study will focus on how immigrant housing outcomes differ from those of non-immigrant New Jersey households who have lived in New Jersey for longer than one year. Two sets of immigrant households will be analyzed. The first group will include households that are headed by a non-citizen who moved to New Jersey from another country during the previous year. The second group will consist of households that are headed by a non-citizen who moved to New Jersey more than one year ago. Looking at both of these groups should make it possible to determine which differences between immigrant and non-immigrant households seem to be due to citizen/non-citizen differences and which differences diminish as immigrants spend more time in the U.S. The primary purpose of the chapters that follow is to distinguish any ways in which the household characteristics and housing outcomes of the two immigrant groups are different from those of households headed by citizens who have lived in New Jersey for longer than the past year.

This study makes use of the American Community Survey which is an annual survey performed by the U.S. Census Bureau with the purpose of updating the data provided every ten years by the decennial census. This study uses the American Community Survey's Public Use Microdata Sample (PUMS) datasets for New Jersey for each year from 2001 to 2010. The data for each survey year is divided into a household survey that makes it possible to identify things such as housing tenure and household income and an individual survey that allows things such as citizenship status, educational levels and labor force outcomes to be identified. The two subsets can also be merged in order to identify households that consist of citizens or non-citizens and allow the comparisons required by this study.

Table 1 contains the sample sizes for each of the three groups for each year included in the survey. This first thing that is obvious from the information contained in the table is that the results for 2001 to 2004 are likely to be less reliable than those from 2005 to 2010, especially for households who immigrated to New Jersey during the past year. For example, in 2001 and 2002 there were only 11 and 16 such households. The results for this group for these two years are likely to be very unreliable. Once the American Community Survey was expanded in 2005, however, the sample sizes for this group range from 175 to 229 and the results should be more reliable.

The relative sizes of the three samples are quite consistent over time. On average, 91 percent of the sample consists of households that are headed by a citizen and have lived in New Jersey for more than a year. This group will generally be referred to as the citizen sample. An additional 8.5 percent of the sample consists of households that are headed by a non-citizen and moved to New Jersey more than one year ago. This group will be referred to as the non-recent immigrant sample. The final 0.5 percent is comprised by households headed by a non-citizen who moved to New Jersey from another country during the past year. This final group is denoted the new immigrant sample.

Table 2 contains information regarding the country of origination for the households in the new immigrant sample for each year of the sample. Specifically, for each household identified in the ACS as being headed by a non-citizen and having moved to New Jersey from another country during the past year, it lists the country or region of origination. Between 2001 and 2010 far more households moved to New Jersey from India than any other country. Over that time period more than 16% of the households who immigrated to New Jersey came from India. The next three most common countries of origination for households who immigrated to

New Jersey were Mexico (5.7%), South America (country not specified) (5.6%), and South Korea (5.0%). China (4.8%), the Dominican Republic (4.5%), and the Philippines (4.1%) were the only other countries with a share that exceeded 4 percent. In total there are 56 countries or regions of origination for households in the American Community Survey who immigrated to New Jersey between 2001 and 2010. India was the most common country of origin for every year in the sample except for 2002 and 2003. During those years the most common country/region of origin was South America (country not specified). India was the third most common country of origin in 2002 and the second most common in 2003.

The rest of the analysis in this report is divided into three chapters. Chapter 2 will compare the various groups of households according to a variety of demographic and household outcomes of the various groups. This chapter will analyze variables such as household income, education attainment, and labor market outcomes. Chapter 3 will focus specifically on the housing outcomes of the three groups in the study. This chapter will analyze variables such as homeownership rates, housing costs, and affordability measures.

Finally, chapter 4 will assess how the household characteristics and housing outcomes of immigrants change as they spend more time living in the United States. This is accomplished by separating the sample of immigrants for each year based on the year that they entered the United States and then creating new subsamples of immigrants who have been in the United States for one year, two years, etc., by pooling the households from each year's sample who have been in the United States the requisite number of years. For example, the one year sample includes households from the 2002 sample whose year of entry was 2001, households from the 2003 sample whose year of entry was 2002, and so forth. The two-year sample, then, includes households from the 2003 sample who entered the U.S. in 2001, households from the 2004

sample who entered the U.S. in 2002, and so forth. The purpose of this final bit of analysis is to assess the extent to which immigrant household characteristics and housing outcomes converge to those of native households as the immigrant households live in the United States for a longer period of time.

Chapter 2: Household and Personal Characteristics

As indicated in the previous chapter this section will compare the household and personal characteristics of three groups of households (non-immigrant households who have lived in New Jersey for longer than one year, immigrant households who have lived in New Jersey for more than one year, and new immigrant households). The goal is to determine how similar or different the groups are from each other and to determine which differences appear to be due to immigrant/native differences and which disappear as immigrant households spend more time in the U.S.

Table 3 contains the data on the average household size of the three groups for each year from 2001 to 2010. It also shows the percentage difference between the various groups.

Differences that are statistically significant at a 5% level of significance between the groups are indicated by using bold font for the percentage difference. The results indicate that recent immigrants have the largest households while non-immigrant households have the smallest ones. On average, the average household size for new immigrant households is more than 52% greater than that of households headed by citizens. The difference between the two groups ranges from a low of 2.8% in 2001 to a high of 72.4% in 2002. For the years 2003 to 2010, when the sample size for new immigrants is large enough to be reliable, the difference between the two groups ranges from 44.8% in 2006 to 71.7% in 2010 and the difference is statistically significant in every case.

The difference between native and non-recent immigrant households is similar but smaller. The average difference between these two groups is 40.2% and the difference ranges

from 34.4% in 2004 to 46.8% in 2010. The difference is statistically significant for every year in the sample.

As the results for the first two comparisons would suggest, the average household sizes for the two immigrant groups are much closer together than those of non-immigrant and immigrant households. On average, the average household size of immigrant households who moved to New Jersey from another country during the past year is 8.5% higher than that of immigrant households who moved to the U.S. more than one year ago. For the years with a reliable sample size of new immigrant households, the average household size of new immigrant households is always larger than that of non-recent immigrant households. The difference ranges from a low of 2.7% in 2009 to a high of 17.8% in 2003. The difference between the two groups is statistically significant for six of the ten years in the sample.

Table 4 contains the data on average household income for each of the groups for each year included in the study. The percentage differences between the groups are also reported and statistically significant differences at a 5% level of significance are indicated using bold font.

The results in table 4 are not as consistent as one might expect. While the non-immigrant households have the highest incomes, on average, there are four years, including 3 of the final 4 years in the sample, in which the new immigrant households have higher average incomes than the non-immigrant households. Additionally, there are only five years in which the difference between the two groups is statistically significant at a five-percent level. For the years with an acceptable sample size for new immigrant households, the difference ranges from recent immigrants having incomes that are 9.6% higher than those of non-immigrant households in 2008 to non-immigrant households having incomes that are 23.2% higher than those of recent immigrant households in 2004.

The differences between the non-immigrant and non-recent immigrant groups are more consistent. The average household income for the non-immigrant group is higher in every year and, on average, is 7.8% higher. The differences are also more consistent with the smallest difference of 3.5% occurring in 2001 and the largest difference of 11.3% occurring in 2010. The differences are statistically significant every year from 2003 to 2010.

The differences between the two immigrant groups also vary widely across the 10 years in the sample. There are 4 years where the non-recent immigrant group has the highest average household income and 6 years in which the incomes for the recent immigrant group are highest. There are also 7 years in which the differences are statistically significant. Three of the seven are years where the recent immigrants have higher incomes and four are years where the non-recent incomes have higher incomes. For the years with an acceptable sample size for new immigrant households, the difference ranges from recent immigrants having incomes that are 16.9% higher on average to non-recent immigrants having incomes that are 19.2% percent higher on average.

The differences between recent immigrants and the other two groups are quite volatile and it is difficult to discern a distinct pattern. The main reason for this is the exceptional volatility of the household incomes of recent immigrants. It is likely that this volatility is due to the relatively small sample sizes for this group being affected by extreme values (i.e. a few households with very large or very small incomes in a particular year) more than the other two groups. One way to test this is to analyze the median incomes of the groups in order to determine whether or not the differences between the groups' median incomes are similar to the differences in average incomes.

Table 4 presents the data on the median household incomes for the three groups for each year in the sample. Once again, the percentage differences between the groups are reported on the right-hand side of the table. However, it is not possible to determine whether or not the differences in median income are statistically significant so the results in table 5 should be viewed as complementary to the results in table 4.

The results for median incomes are somewhat more consistent than those for average incomes. The median income of non-immigrant households is, on average, 15.1% higher than that of recent immigrant households. However, there are two years (2003 and 2008) where the median household income of recent immigrant exceeds that of non-immigrant households. The difference varies from recent immigrant households having a median household income that is 6.1% greater than that of non-immigrant households in 2008 to non-immigrant households having a median household income that is 63.4% higher in 2001. However, if 2001 and 2002 are ignored due to the very small sample of recent immigrant households, the largest difference is 2004 when the median household income of non-immigrant households is 29.9% greater than that of recent immigrant households.

Next, non-immigrant households have a median household income that is, on average, 7.6% higher than that of non-recent immigrant households. The difference is also more consistent than that for non-immigrant and recent immigrant households in that non-immigrant households have a higher median income for every year in the sample. The difference ranges from a low of 1.6% in 2001 to a high of 11.2% in 2008. For some reason, the difference between the two groups has grown over time.

Finally, focusing on the two immigrant groups reveals that non-recent immigrants have a median household income that is, on average, 8.2% higher than that of recent immigrants.

However, there are five years in which the recent immigrant households have a higher household income and five in which non-recent immigrants have a higher household income. The difference varies from recent immigrants having a median income that is 20.1% greater than that of non-recent immigrants in 2008 to non-recent immigrants having a median income that is 62.8% greater in 2001. Ignoring 2001 and 2002 for the reasons already stated, the largest difference is 23.0% in 2004.

Table 6 contains the results for the Labor Force Participation Rate (LFPR) for individuals in the three groups aged 25 and above. Recall that the labor force participation rate is calculated as the percentage of the individuals in a group who are either employed or looking for work. Unlike the data on income, the labor force participation rate data yields consistent results over time. In every year, non-recent immigrant households have the highest LFPR among the three groups. For the 10 years in the sample their average LFPR is 71.0%. The average difference between non-recent immigrants and non-immigrants was 9.1% and the difference was statistically significant at a 5% level for all 10 years. The difference ranges from a low of 3.6% in 2003 to a high of 10.9% in 2008.

Additionally, the LFPR of non-recent immigrants was, on average, 24.5% higher than that of recent immigrants. The difference between the two groups is statistically significant for every year in the sample except for 2001 when the sample of recent immigrants was so small as to render statistical significance unlikely. Among the years with acceptable sample sizes (2003-2010), the difference between the two groups ranges from a low of 15.8% in 2003 to a high of 43.1% in 2004.

Finally, for every year in the sample, the labor force participation rate of non-immigrant households is higher than that of recent immigrants. The difference, on average, is 17.7% and is

statistically significant for every year except for 2001 and 2003. For the years 2004 to 2010, the difference ranged from a low of 8.7% in 2008 to a high of 38.5% in 2004.

Table 7 contains the results for the unemployment rates for individuals in each of the three groups aged 25 and above. Similarly to the LFPR results, the results for the unemployment rates of the three groups are consistent over time. Non-immigrants have the lowest unemployment rates (5.5%, on average) and recent immigrants have the highest unemployment rates (15.3%, on average). The unemployment rate for non-immigrants averages 30.3% lower than that of non-recent immigrants and 177.2% lower than that of recent immigrants. The difference between non-immigrants and non-recent immigrants is statistically significant for every year in the sample and ranges from a low of 15.8% in 2010 to a high of 48.5% in 2003. The difference between non-immigrants and recent immigrants is statistically significant for 8 of the years in the study. The exceptions are 2002 and 2004. The difference ranges from a low of 62.9% in 2004 to a high of 300.2% in 2001.

Among the two immigrant groups, the unemployment rate for non-recent immigrants is lower than that of recent immigrants for 9 of the 10 years. The only exception is 2002 when the small sample of new immigrants yields a 0% unemployment rate. For the other nine years the difference is statistically significant for every year except for 2004 and ranges from a low of 18.7% in 2004 to a high of 385.4% in 2001.

Table 8 shifts the focus to the educational attainment of the various groups. For the purposes of this study the educational attainment of a group is measured as the percentage of individuals in the group who are aged 25 and over who have at least a bachelor's degree. In a potentially surprising result, the highest educational attainment is for the new immigrant group. On average, 52.1% of the individuals aged 25 and over in this group had at least a bachelor's

degree. On average, this was 52.2% higher than the level for non-recent immigrants and 47.5% higher than that for non-immigrants. The difference between recent and non-immigrants is significant for 8 of the 10 years in the sample and the difference between recent and non-recent immigrants is also statistically significant for 8 of the years. In each case, the only years for which the difference is not statistically significant are 2001 and 2002 when the sample size for recent immigrants is very small.

On average, the education attainment of non-recent immigrants is slightly below that of non-immigrants (3.1% lower). However, there are 5 years in which non-recent immigrants have a higher level of educational attainment and 5 in which the educational attainment of non-immigrants is higher. The differences between these two groups are statistically significant for only 4 of the 10 sample years. Thus, while new immigrants appear to enter the country with very high levels of education attainment, their educational attainment seems to converge to that of non-immigrants over time. This suggests that a large percentage of the most highly educated immigrants return to their home countries at some point.

This chapter has analyzed several of the household and individual characteristics for three groups: new immigrants, immigrants who have lived in New Jersey for more than one year, and non-immigrants who have lived in New Jersey for longer than one year. There are several conclusions that can be drawn from the analysis in this chapter. First, non-immigrant households have higher incomes, on average, than both types of immigrant households. However, the incomes of new immigrant households are subject to such a high level of volatility that there are years in which the new immigrant households have higher average incomes than non-immigrant households. The relationship between non-immigrant and non-recent immigrant household

incomes is more stable with non-immigrant households having higher incomes for every year in the sample.

Second, new immigrants have lower levels of labor force participation and higher unemployment rates than non-immigrant workers. However, the labor force participation of immigrant workers increases over time to such an extent that non-recent labor force participation rates are higher than those of non-immigrant workers. However, their unemployment rates remain higher than those of non-immigrant workers.

Finally, new immigrants have very high levels of educational attainment. Their educational attainment is, on average, more than 50 percent higher than that of non-immigrants. However, this difference dissipates over time and the average educational attainment of non-recent immigrants is slightly lower than that of non-immigrants. This suggests that a high percentage of highly educated immigrant workers do not remain in the United States.

Chapter 3: Housing Outcomes

The previous chapter compared and contrasted three groups (non-immigrants, non-recent immigrants, and new immigrants) with respect to a variety of household and individual characteristics. This chapter will focus on how the three groups compare to each other regarding a variety of housing outcome variables. Specifically, this chapter will analyze homeownership rates, lot size, rents, property values, dwelling age, and affordability levels and attempt to discern the significant differences in the housing outcomes of the three groups.

Table 9 presents the homeownership rates for each of the three groups (non-immigrants, non-recent immigrants, and recent immigrant households) for each year in the study. Additionally, the ten-year average is presented in the final row of the table and the percentage difference between each of the groups is presented in the right-hand columns. Differences that are statistically significant at the 5% level are indicated through the use of bold font for the percentage difference observations.

It is clear from the results in table 9 that non-immigrant households have the highest homeownership rates by far. The ten-year average homeownership rate for non-immigrant households is 77.5% which is more than 26 percentage points higher than the ten-year average for non-recent immigrant households and more than 46 percentage points higher than that for recent immigrants. This also means that the ten-year average homeownership rate for non-recent immigrants (51.3%) is more than 20 percentage points higher than that of recent immigrants (31.0%). The differences between all of the groups are statistically significant in every case except for the difference between recent and non-recent immigrants in 2003. Thus, one clear impact of immigration on the housing market is that new immigrant households are

overwhelmingly renter households and it does not appear that their homeownership rates rise to those of non-immigrant households over time. Chapter 4 will analyze this issue in more depth.

Table 10 contains information regarding the lot sizes of owners within the three groups. Unfortunately the American Community Survey does not ask a very detailed question regarding lot size and simply divided the owners into three groups: lot size less than 1 acre, lot size between 1 and 10 acres, and lot size greater than 10 acres. For the purposes of this study the percentage of households who own lots bigger than 1 acre are reported for each group for each year in the sample.

As was the case with the homeownership rates, there is a clear and consistent pattern to the results regarding lot size. Non-immigrant households have the highest percentage of households who live on lots bigger than one acre for every year of the sample. Their ten-year average is 13.8% which is 2.3 percentage points higher than that of non-recent immigrant households and almost 5 percentage points higher than that of recent immigrants. The differences between the non-immigrant and non-recent immigrant households are statistically significant for every year between 2003 and 2010. Unfortunately, the low homeownership rates and small sample sizes of recent immigrant households make it difficult to obtain statistically significant differences between them and the other two groups. While non-immigrant households consistently have a larger percentage of households living on larger lots than recent immigrants, the difference is statistically significant only for 2009. Similarly, the only statistically significant differences between the two immigrants occur in 2005 and 2007 when recent immigrants have a larger percentage of households living on lots of one acre or more. While the results in table 10 are not as strong as those in table 9, there is some evidence that

those immigrant households who become homeowners tend to live on smaller lots than non-immigrant households.

Table 11 contains information regarding the average gross rent paid by the renter households in each group for each year in the sample. Once again there is a clear and consistent pattern regarding the results. Non-immigrant households pay the lowest average rents while recent immigrants pay the highest average rents. The ten-year average for non-immigrant households is more than 30 percent lower than that of recent immigrant renter households and more than 11% lower than that of non-recent immigrant households. The difference between non-immigrant and recent immigrant households is statistically significant for every year between 2003 and 2010 and the difference between non-immigrant and non-recent immigrant households is statistically significant for every year in the sample. Finally, the ten-year average for non-recent immigrant households is more than 17 percent lower than that of recent immigrants. A later table will analyze the rent burden with respect to income but it is clear that recent immigrants pay the highest rents while non-immigrant renter households pay the lowest rents.

Table 12 contains the average property value for the homeowners in each of the three groups. Unfortunately, there are only 3 years in the sample (2008-2010) in which the ACS reports the property value as a dollar amount. In all of the other years the property value is reported using grouped data and it is not possible to compute the average value for each group. However, the results for the years for which data are available are somewhat surprising. Recent immigrant owners have the highest three-year average and non-immigrant households have the lowest three-year average. However, the only statistically significant differences are between the non-immigrant and non-recent immigrant households. Non-recent immigrant households, on

average, own properties with values that are 1.3% higher than those of non-immigrant households. Thus, the main conclusion from table 12 is that there are no significant differences in the values of properties owned by the three groups. It appears that recent immigrant owner households own higher valued properties but the small sample size makes it difficult to obtain statistically significant results.

The small sample size of recent immigrant owner households also means that the average for the group is likely to be influenced by extreme values. Because of this, table 13 reports the median property values for the three years for which data was available in order to determine the extent to which the results in table 12 are influenced by extreme values. The results in table 13 suggest that the conclusions from the previous table are not simply due to extreme values as the differences in the median are quite similar to the differences in the averages. The median property value for recent immigrants is, on average, 16% higher than that of non-immigrant households and more than 8% higher than that of non-recent immigrant households. This provides more evidence that recent immigrant owner households own properties with higher values than the other two groups.

Finally, tables 14 and 15 look at the housing affordability levels for each of the groups. Table 14 presents information on the affordability levels of renter households by providing information on gross rent as a percentage of monthly income. Table 15 provides information regarding the affordability of owner households in each group by presenting monthly owner costs as a percentage of monthly income.

The differences in affordability for the three groups in table 14 are not large. The ten-year averages for the groups range from 34.8% for non-recent immigrant renters to 38.6% for recent immigrant renters. However, the only consistent significant differences are those between

non-immigrant and non-recent renter households. The average difference between the two groups is about 2.8 percentage points and is statistically significant for every year in the sample. So the one conclusion that can be drawn regarding renter affordability is that non-recent immigrant renters live in units that are more affordable than those of non-immigrant renter households.

Finally, table 15 presents the affordability results for owners. The results are very consistent with non-immigrant owners having the highest level of affordability for every year in the study. The ten-year average for non-immigrant owners is almost 5 percentage points lower than that of non-recent immigrants and is statistically significant for every year in the sample. The difference between non-immigrants and recent immigrants is almost 9 percentage points but is statistically significant for only three years (2004-2006). Once again, this is most likely due to the small sample size for recent immigrant owners. So while it appears the homeownership is more affordable to non-immigrants than both types of immigrant households, the difference can only be established statistically for non-recent immigrants.

This section has analyzed the housing outcomes for three groups of households: non-immigrant households who have lived in New Jersey for more than one year, immigrant households who have lived in New Jersey for longer than one year, and immigrant households who moved to New Jersey from another country during the past year. There are several conclusions that can be drawn from the analysis in this chapter. First, immigrant households are more much likely to be renters than non-immigrants households. While the difference shrinks as immigrant households remain in the U.S. for a longer period of time, it remains quite large. Second, it appears that those new immigrant households who are owners purchase high value homes. However, the small sample of new immigrant homeowners makes it difficult to establish

this conclusively. Third, renter households in all three groups experienced fairly similar levels of affordability. Finally, immigrant homeowners experience lower levels of affordability than non-immigrant households.

Chapter 4: Immigrant Outcomes Over Time

The previous chapters analyzed household characteristics and housing outcomes for immigrant households one year at a time from 2001 to 2010. Another interesting question is how these characteristics and outcomes change as immigrant households spend more time living in the U.S. Fortunately, the American Community Survey also reports the year of entry for immigrant households. This makes it possible to construct artificial cohorts of immigrant households who have been in the United States for the same amount of time from different survey years. For example, the cohort of households who have been in the U.S. for one year will consist of immigrant households from the 2010 survey with 2009 as their year of entry, households from the 2009 survey with 2008 as their year of entry, and so forth. The results from these pooled cohorts should provide insight into the degree to which immigrant outcomes converge to those of non-immigrants over time. However, it should be noted that these are not true cohorts because in the ACS surveys a different set of households each year so it is not possible to follow the same households over time.

Tables, 16, 17, and 18 contain the average household income, median household income, and homeownership rates for immigrant households in each year of the American Community Survey segments according to their year of entry. Reading down each column provides a look at how the outcomes for immigrants who entered the United States during a particular year changed over time. Once again, they do not provide a perfect look because it is not possible to follow the same group of households over time. This means that outcomes will change due to changes in the composition of households as well as from the effect of being in the United States for a longer period of time. However the results in these tables should provide information regarding how immigrant outcomes behave over time.

Table 16 contains the average household income for each cohort for each year of the sample. The results seem to suggest that there is a general upward trend with average household income increasing over time. However, there is quite a bit of fluctuation in the values over time so it is helpful to condense all of the information in the tables into one diagram that covers all of the cohorts for all of the sample years. Figures 1, 2 and 3 are created by combining all of the immigrant households in the samples from each of the year and combining them based on the number of years since their year of entry into the United States. Thus, the average values depicted in the figures are the averages for all immigrant households in the sample for their year of entry, all immigrant households who have been in the U.S. for one year, all immigrant households who have been in the U.S. for two years, and so forth. This should filter out the impact of varying sample characteristics over time and make it possible to discern how the outcomes change with time in the United States.

As mentioned above, the data in table 16 suggest that immigrant incomes rise as they spend more time in the United States. This is supported by Figure 1 which shows a clear upward trend despite periodic fluctuations. However, while there appears to be a clear pattern of increasing average household income for immigrant households as they spend more time in the U.S., the increase is slight and not terribly obvious or dramatic.

Table 17 and Figure 2 present similar information for the median household incomes of immigrant households. Interestingly, the median income seem to follow a U-shaped pattern in which it declines for a year or two after entry and then begin to steadily climb so that they rise to levels above where they were upon entry. It is not clear whether or not Figure 2 supports this conclusion. There is some evidence of an initial period of flat incomes followed by a slight

upward trend at the right-hand side of the graph. However, the large amount of fluctuation in values makes it difficult to assess whether the seeming upward trend matters.

Finally, Table 18 and Figure 3 provide a similar comparison for the homeownership rates of immigrant households over time. This time the results are clearer than they were for both average and median household incomes. Both Table 18 and Figure 3 reveal a clear pattern of immigrant homeownership rates increasing with time in the United States. Figure 3 reveals a minimum homeownership rate of approximately 30 percent after 2 years in the U.S. followed by a steady increase to a maximum of around 50 percent after 10 years in the U.S. Thus, while the data on income levels are not entirely clear, the data clearly show that part of the immigrant adjustment to living in the United States is a shift out of rental housing to owner-occupied housing.

This chapter has constructed artificial cohorts of immigrant households in order to determine how immigrant incomes and homeownership rates change as they live in the United States for a longer period of time. There is some evidence that immigrant income rise as they live in the U.S. longer. However, the increase is not terribly large and it is not clear how the increase compares to that of non-immigrant households over time.

While the evidence regarding the income of immigrant households over time is not conclusive, there is clear evidence that immigrant homeownership rates rise over time. In their year of entry, the average homeownership rate of immigrant households is approximately 50 points below that of non-immigrant households. This difference falls over time so that the households in the sample who have been in the U.S. for 10 years have homeownership rates that are only 30 points below those of non-immigrant households. While the difference is still large,

there is strong evidence that immigrant homeownership rates rise dramatically as they live in the U.S. for longer periods of time.