

Earnings Inequality and Immobility for Hispanics and Asians: An Examination of Variation Across Subgroups

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Abstract

This study provides the first detailed examination of earnings inequality and immobility within the Hispanic and Asian ethnic and racial groups in the U.S. over the period of 2005-2015. Our disaggregated analysis differentiates between long-term residents and native-born Hispanics and Asians relative to recent immigrants to the U.S. (post 2005) and new labor market entrants. The results show that for the Asian and Hispanic population aged 18-45, earnings inequality is constant or slightly decreasing for the long-term legal resident and native-born populations. However, including new labor market entrants and recent immigrants to the U.S. contributes significantly to the earnings inequality for these groups at both the aggregate and disaggregated race or ethnic group levels.

Keywords: Earnings immobility, earnings inequality, race, ethnicity, data disaggregation

JEL classification: J1 J61

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1 Introduction

There is a reemergence of interest in understanding and ameliorating racial and ethnic socio-economic inequality. A vast literature explores and documents the substantial gaps in income, earnings, and wealth between the African American and White populations in the United States (Bloome, 2014; Bloome and Western, 2011; Chetty et al., 2020; Derenoncourt and Montialoux, 2021; Reardon and Bischoff, 2011). There is also a growing body of literature that demonstrates the evolution of income inequality for other racial and ethnic groups (Akee et al., 2019; Budiman et al., 2019; Horowitz et al., 2020; Kochhar and Fry, 2014; Snipp and Cheung, 2016). Much less is known about the experiences of racial and ethnic subgroups within these larger groups primarily due to the fact that reliable analysis of subgroups requires a large amount of observations. Many nationally-representative longitudinal data sets do not collect large enough samples needed to conduct reliable statistical analyses within Asian or Hispanic subgroups in the U.S.

The most recent U.S. Census data for 2020 indicates that the Asian and Hispanic groups have some of the largest gains in population growth over the past decade; both groups doubled their population shares (Bahrapour and Mellnik, 2021). Asians and Hispanics, when they are included in analyses, are often treated as monolithic or homogeneous groups. However, in contrast to the myth of the model minority, the experiences of Asian subgroups are varied. While Asian Indians have high levels of income (median household income in 2017-2019, \$119,000) and low poverty rates (6 percent), Burmese experience low levels of income (\$44,000) and high poverty rates (25 percent) (Budiman et al., 2019). The experiences of Hispanic subgroups are similarly diverse. Argentinians had the highest median income among Hispanics in 2018 (\$68,000), while Hondurans had the lowest median household income in 2018 (\$41,000) (Noe-Bustamante, 2019).

This study provides the first detailed analysis of earnings inequality and immobility within Asian and Hispanic subgroups in the U.S. We focus on these two groups as they are often unreported in standard inequality analyses due to data limitations, yet they are also of interest due to the relatively large flows of immigrants in recent decades and because of their relatively young populations as compared to non-Hispanic whites.

Our research explores two avenues of data disaggregation: along subgroups of race and ethnicity and between established workers and new immigrants and new labor market entrants. These two dimensions add nuance to our understanding of how earnings inequality and immobility progress. Using data from the American Community Survey (ACS), we identify Asian and Hispanic individuals and link them to their IRS earnings data (W-2s and 1099 forms). Newly arrived Asian and Hispanic individuals in the age group 18-45 are flagged based on responses to the year of immigration question contained in the ACS. We define persons as new entrants into the labor force as those who have no previous earnings records in the observation window. As a result, we can further disaggregate the Asian and Hispanic data into a long-term panel of workers and a dataset that also includes new immigrants and new labor market entrants.

Our analysis makes three contributions to the literature. First, we demonstrate that the share of earnings accruing to the top 10% of the earnings distribution is larger for certain Asian and Hispanic subgroups; the top 10% of the Asian Indian and Cuban earnings distribution tend to have a much larger share of earnings than other groups within their race or ethnic group. This type of variation is often obscured when data are either not reported for these groups or are aggregated up.

Second, we show that there are level differences in earnings inequality across the various Asian race subgroups and Hispanic ethnic subgroups. When we separate out new labor market entrants and immigrants, we find that the level of earnings inequality is flat or slightly downward trending over the period 2005-2015 for the long-term legal residents and native-born Asian and Hispanic population. This indicates that the inclusion of new labor market entrants and recent immigrants to the U.S. drives the upward trend in earnings inequality for these populations. These results are especially pronounced after the start of the Great Recession.

Finally, we find that earnings immobility has been increasing over the 2005-2015 period for all subgroups within the Asian racial group and the Hispanic ethnic group. While there is little to no change in earnings inequality for these groups, there is also very little movement within the earnings distribution. We do find evidence that the various Hispanic subgroups have slightly lower levels of earnings immobility, on average, as compared to non-Hispanic whites. Asian subgroups have similar levels of earnings immobility to that of non-Hispanic whites.

2 Data

In this analysis we link confidential-use individual records from the American Community Survey to the Internal Revenue Service W2 and 1099 forms. We create a novel panel data set that follows the evolution of earnings within disaggregated Hispanic ethnicity groups and the Asian race groups in the U.S. over the time period 2005-2015. We disaggregate the Hispanic category into individuals of Mexican, Central American, Puerto Rican, Cuban, Spanish, and South American descent; these are the largest sub-categories in the aggregated Hispanic ethnic group. We disaggregate the Asian race category into Asian Indians, Chinese, Filipino, Japanese, Korean, Vietnamese and Other Asians.

Our process for linking administrative records starts with the 2005 American Community Survey. This representative survey is conducted annually for approximately 2-3% of the U.S. population. Individual-level records are assigned a protected identification key (PIK) number which is unique across individuals and based on a person's name, birth date, address, and social security number (Wagner et al., 2014). The PIK is then used to identify an individual in the W2 or 1099 data from the IRS. We use both survey weights and inverse probability weights of PIK assignment in the analyses that follow.

In Table 1 we provide the total number of observations for the Hispanic and Non-Hispanic white samples from the 2005 ACS. There are approximately 1,319,000 observations in the 2005 ACS who are between the ages of 18-45 and we are able to assign PIKs to 91% of those observations.¹ In the next row, we show the number of observations that can be found in the IRS W2 or 1099 data which is 1,196,000 or about 83% of the observations with a valid PIK. Similar results are provided in Table 2 for the Asian and Non-Hispanic white samples from the 2005 ACS. There are approximately 1,295,000 observations in this data and we are able to assign PIKS to 92% of those observations. Finally, we are able to merge the IRS W2 or 1099 data to about 83% of those observations.

We are interested in the evolution of earnings inequality and immobility, and thus our analysis will focus on individuals in the formal labor force and will not include those working in informal activities that do not result in recorded taxable earnings. We also cannot identify undocumented immigrants as

¹Note that these sample sizes have been rounded according to U.S. Census Disclosure Review Board rules to ensure confidentiality of the data.

they, by definition, will not have administrative records and will be less likely to have been assigned a PIK. Finally, we note that we do not have earnings or income data for individuals who are fully self-employed in this data and self-employment may be higher in these populations ([Fernandez and Kim, 1998](#); [Robles and Cordero-Guzman, 2007](#)).

2.1 Panel Data of Individual Earnings

Using the annual earnings data, we create several different datasets that we use in the analysis. First, we construct a individual-level panel data set of earnings across the disaggregated subgroups for Hispanics and Asians in the U.S. This panel is fixed at 2005 for our purposes; the data follows the same individuals over time and examines their earnings inequality and trajectories. To be included in the panel data, an individual must have an IRS W2 or 1099 record for at least 2 consecutive years starting in 2005. By design this allows individuals to leave the labor force and/or have no earnings for extended periods of time; this may add to observed earnings volatility and we believe this provides an accurate depiction of actual earnings inequality over time. Furthermore, we have restricted our analysis to individuals who were 18-45 years old in 2005. We focus on this relatively young population as they are the most likely to be affected by the inflow of new labor market entrants and/or new immigrant arrivals. We include individuals who are 18 years old and older to account for potential inflows into the labor market from post-secondary institutions either after degree completion or before.

2.2 Including Recent Immigrants and New Labor Market Entrants

While the main focus of this analysis follows a panel of individuals from 2005-2015, we can also conduct separate analyses that include new Hispanic and Asian workers over time, as they join the labor market after 2005. We call the first sample the panel data and we call the second the cross section data. The second data set is observationally equivalent to taking a repeated cross section of the Hispanic or Asian population in the U.S. annually where we include new labor market entrants or recent immigrants meeting the same age and ethnicity restrictions as in the panel data. These two types of flows, new labor market entrants and recent immigrants, are potentially important for these ethnic/race groups as they have younger age distributions relative to non-Hispanic whites and high recent migration flows into the U.S. ([Ong and Nakanishi, 1996](#); [Schaeffer, 2019](#)). As a result, earnings inequality estimates may differ for these groups depending on whether we include or exclude the new labor market entrants and recent immigrants.

In order to identify recent arrivals to the U.S., we use information provided on date of arrival in the U.S. in the ACS data. We link those individuals to their W2 and 1099 data for all years subsequent to their arrival. We include individuals in years after 2005 who report not working in the previous year. Finally, we restrict the sample to those within the same age and ethnic groups as the original base population in 2005 (properly adjusted by age group for each additional year e.g. ages 19-46 for 2006, ages 20-47 for 2007 and so on).

In [Table 3](#) we provide a table of means for the characteristics of the analysis sample, the sample of individuals with a valid PIK, and all individuals identifying as Hispanic or non-Hispanic white in the 2005 ACS. The table contains three columns of means. We provide a similar table of means for Asians and non-Hispanic whites in [Table 4](#). The final sample, in both cases, is positively selected with regard to earnings and income. We expect our sample, which consists of documented individuals working in

the formal labor market, to have higher earnings and/or incomes than the broader samples contained in the ACS data; this is a result of focusing on the earnings of individuals in administrative data; we do not find a lot of evidence of selection on other characteristics. These results are shown directly in Panel A of Tables 3 and 4.

In Panel B of both tables we show the proportions of each racial or ethnic subgroup in the respective analysis samples. We disaggregate the Asian race group into its largest subgroups: Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese and Other Asian groups. Similarly, for the Hispanic ethnic category we disaggregate the data into its largest subgroups: Mexican, Puerto Rican, Cuban, Central American, South American.²

Appendix Table A1 provides the earnings data in 2006 for new labor market entrants and immigrants (and for 2014 as well) using the 2006 and 2014 ACS data for the three race and ethnic groups in this analysis. In all cases, the average earnings for the stock of the race or ethnic group is larger than that of newly arrived individuals from that same race or ethnic group. In later analysis, we will show how the addition of the new immigrants and new labor market entrants can serve to increase earnings volatility and inequality. Differences in the size of relative immigration flows and relative fertility may explain a significant amount of earnings volatility in the Asian and Hispanic groups in the U.S. relative to non-Hispanic whites.

The observations that satisfy these criteria are included in the Gini coefficient analyses and the analysis of log ratios of different quantiles of the earnings distribution. A comparison between the main panel data and this cross sectional data will highlight the effect that the new labor force entrants and recent immigrants have on overall group inequality for each of the Hispanic or Asian subgroups.

3 Analysis of Earnings Shares

We identify the proportion of total earnings by racial or ethnic group that accrue to the top and bottom 10% of the earnings distribution by each of the specified groups. We provide the bottom 10%, top 10% (90th percentile and greater of the earnings distribution), and the top 5% (95th percentile and greater) for both Hispanics and Asians in Appendix Tables A2 and A3 for all years 2005-2015. These proportions are indicative of earnings inequality for this sample of employed individuals for the U.S. In particular, they illustrate the proportion of total earnings for each racial or ethnic subgroup that is captured by either the top (or bottom) 10% of the respective populations. If earnings were completely equally distributed, then the top 10% and the bottom 10% (and all deciles in between) would all have 10% of earnings. Any deviation above or below 10% indicates increasing inequality in earnings shares.

Figure 1 provides a plot of the share of earnings that accrue to the top 10% of the Hispanic earnings distribution at the two endpoints in time - 2005 and 2015 disaggregated by Hispanic subgroup.³ There are several points to note from this figure. First, there is not a great amount of change in the decade between 2005 and 2015 in the earnings shares for most of the Hispanic groups. Second, the top ten percent of Cubans appear to be earning approximately 40 percent or more of the total earnings for their subgroup as a whole and this has remained constant between 2005 and 2015. The rest of the

²We do not report the category of Other Asian groups, Spanish or Other Hispanic in our main tables and figures but they are available upon request.

³Appendix Table A2 provides the earnings shares for all years in the analysis for the bottom and top ten percent as well as the top five percent.

subgroups range between 15 percent (Mexican and Central American) and the high 30 percent range. In general, all of top 10% of each Hispanic subgroup earns more than their proportion if earnings were distributed equally.

Figure 2 provides similar descriptive data for the top 10% of the Asian earnings distribution at two points in time - 2005 and 2015 disaggregated by Asian subgroup.⁴ Unlike in the case of Hispanics, there do appear to be relatively large differences in the share of earnings that accrued to the top 10% of the Asian earnings distribution between 2005 and 2015. The richest Asian Indians increased their share from approximately 60% in 2005 to almost 70% in 2015. On the other hand, both the top 10% of the Japanese and Filipino earners realized a decrease in their share of earnings (as a group) by almost a full ten percentage points. The other subgroups do not have such dramatic changes. Another difference from that of the top 10% of the Hispanic earnings in the previous figure is that the magnitude of earnings share accruing to these subgroups is larger, with at least four Asian groups earning above the 40% threshold.

Appendix Figures A1 and A2 provide the share of earnings accruing to the bottom 10% of the earnings distribution for each group. We do not show those results in the main text, but note that none of the Asian groups at the very bottom earn above 1% of the total earnings. We find that Mexicans and Puerto Ricans at the bottom 10% of the earnings distribution earn slightly more than 1% of total earnings for their respective groups. Overall, this indicates that the very bottom of all of the groups are earning very small shares of total earnings.

4 Gini Coefficients

In this section we examine a more formal measure of earnings inequality by calculating the Gini coefficient for the Hispanic and Asian subgroups. In the first panel of Figure 3 we plot the Gini coefficients by year for each of the Hispanic subgroups for the panel data.⁵ The striking finding is that earnings inequality was unusually large in 2010 for Cubans. This marks the high-point of the Great Recession with respect to the level of unemployment in the country. This result suggests that the Great Recession resulted in a substantial reduction in the earnings of a large amount of the Cuban population, possibly due to either layoffs or reduced work hours. All other groups experience a slightly downward trend in inequality. Central Americans and Mexicans have the lowest level of earnings inequality for all years; both groups are below the Total Hispanics average for all years. On average, however, there appears to be a level or even slight downward trend in the Gini coefficient over time. This indicates that for the consistent panel of Hispanic earners, inequality remains constant or flat over time. Appendix Figures A4 and A5 show the log ratio of the 90th percentile of earnings to the 50th percentile and the log ratio of the 50th percentile of earnings to the 10th percentile, respectively for Hispanics.

In the second panel of Figure 3 we add the new Hispanic labor market entrants and recent Hispanic immigrants to the panel data set as described above. We call this data the cross-section data as it replicates a standard cross-sectional sample that would be present in any publicly available dataset. Our main finding is that the Gini coefficients appear to increase for the majority of groups in

⁴Appendix Table A3 provides the earnings shares for all years in the analysis for the bottom and top ten percent as well as the top five percent.

⁵Appendix Figure A3 provides the same set of figures with 2005 as the base year and subsequent years as deviations from this initial value normalized to one.

the post-Great Recession years starting in 2010, which also affects the average for the Hispanic group. The cross-section data for Cubans appears to remain constant over most of the years in our data. The results suggest that new labor market entrants and new immigrant arrivals are responsible for the increase in earnings inequality observed in cross-sectional data for these groups. These new labor market entrants may be individuals who have recently graduated from high school or non-graduates. Notably, this is not a large difference for the non-Hispanic whites; this may be explained by the fact that both the proportion of new labor market entrants and the proportion of new immigrants for this race group are small relative to the overall population for non-Hispanic whites in the U.S. and are not large enough to drive changes in earnings inequality. In Appendix Figure A6 we show the Gini coefficients for the new labor market entrants and new immigrant arrivals, respectively, for Hispanics. There is quite a lot of noise, however, it does appear that new labor market entrants tend to have higher average Gini coefficients than new immigrant arrivals. This may indicate that new immigrant arrivals have lower earnings on average and therefore less earnings inequality.

The first panel of Figure 4 provides the Gini coefficients for Asians within the panel data set.⁶ On average, Filipinos tend to have much lower earnings inequality than all of the other Asian groups across all of the years in our data. Chinese and Asian Indians have higher earnings inequality than the other groups and there appears to be a slight increase for Asian Indians after 2010. Overall, there is a fairly constant level of earnings inequality for most of the other groups in this figure. Appendix Figures A8 and A9 show the log ratio of the 90th percentile of earnings to the 50th percentile and the log ratio of the 50th percentile of earnings to the 10th percentile, respectively for Asians.

The second panel of Figure 4 includes both the panel observations for the Asian group and the new labor market entrants and recent Asian immigrants. This cross-section data indicates that there is an increase in earnings inequality over time for both Asian Indians, Chinese and Koreans. There is little increase in earnings inequality for Japanese, Vietnamese or Filipinos over this time period. Clearly, immigration plays a role in earnings inequality for certain race and ethnic groups. In Appendix Figure A10 we show the Gini coefficients for the new labor market entrants and new immigrant arrivals, respectively, for Asians.

⁶Appendix Figure A7 provides the same set of figures with 2005 as the base year and subsequent years as deviations from this initial value normalized to one.

5 Rank Mobility

In this section we calculate the rank mobility of individuals aggregated up to their race or ethnic categories. The individuals are aged 18-45 in 2005, and we follow them as they age. We treat missing income observations as missing, i.e. if a person does not have any reported income in a given year, their rank mobility for that year is not included in the aggregates. This analysis provides complementary insight to the previous results in that we are able to show the income mobility over time within individuals of the different race and ethnic subgroups. Conducting this type of analysis is data intensive and requires longitudinal data on the same individual over multiple time periods.

In Figure 5 below, we show the estimated coefficients from a rank-rank correlation for individuals from various Hispanic subgroups. This measure simply calculates the correlation coefficient from a single individual's own rank in the earnings distribution in year t compared to year $t+1$ as is standard in the literature (see for example, [Kopczuk et al. \(2010\)](#)). We then calculate the subgroup average for each year and report those in the figures shown.⁷ A higher correlation indicates more immobility in the earnings distribution; values closer to one indicate more immobility while those closer to zero indicate more fluidity in the earnings distribution between time periods.

Over time the rank correlations for all groups move upward. There is more immobility for all of the Hispanic (and non-Hispanic white) subgroups between 2005 and 2015. In plain terms this implies that individuals are less likely to experience a change in their placement in the earnings distribution over time. Some of this reduction in mobility is likely moving into more stable employment, as individuals age. For all Hispanic subgroups, the level of mobility is higher than for non-Hispanic Whites at all years. As Hispanics are on average younger than non-Hispanic whites, this correlation is partly due to age differences in income rank mobility. The rank correlations of the various Hispanic subgroups are relatively closely clustered with one another across all years with Puerto Ricans and Cubans experiencing the largest immobility in general.

Figure 6 provides a similar set of figures for Asians. There appears to be an overall increase in immobility for all Asian subgroups over time. The Chinese group has the highest persistent levels of earnings immobility across all years in our data. The range of rank correlations is more compact for Asians than it was for Hispanics; the values range from about 0.87 to 0.92 while there was a larger range for Hispanics (0.83 to 0.92). Additionally, the various Asian subgroups tend to cluster around the non-Hispanic white rank correlations for almost all years.

⁷Our analysis is restricted to only the panel data for the rank correlation figure below as it is necessary to have an individual linked across time for these calculations. It is not possible to calculate a similar rank correlation for repeated cross section data.

6 Conclusion

Using a novel data set that links detailed race and ethnicity information to individual IRS earnings information over the period 2005-2015, we document the difference in earnings inequality and immobility over the Asian and Hispanic groups. Our analysis focuses on disaggregated Asian and Hispanic earnings by their main subgroups for relatively young adults aged 18-45. To our knowledge, this is the first longitudinal study of earnings inequality and immobility for these two groups disaggregated into subgroups.

We find that for Hispanics and Asians there are significant differences in earnings inequality, as indicated by Gini coefficients. Filipinos tend to have much lower earnings inequality than all other groups – including non-Hispanic whites. On the other hand, Asian Indians tend to have some of the highest levels of earnings inequality consistently over all of the sample years. In the data for Hispanic earnings inequality, Cubans have consistently higher inequality than all other groups with Central Americans and Mexicans having the lowest levels of earnings inequality.

Given the unique nature of our data and the available information on year of immigration to the U.S. (if at all) and prior earnings histories, we are able to observe new arrivals to the U.S. and new labor market entrants. In particular, this information allows us to compare earnings inequality by the established Asian and Hispanic earners and the new labor market entrants and/or recent immigrants. Our analysis shows that earnings inequality for most Asian and Hispanic groups remained fairly constant if not slightly downward trending over the time period in our analysis. However, including new arrivals and labor market entrants significantly increased earnings inequality for all of the groups examined. This suggests that for certain groups the increase in observed inequality may be a result of the influx of new individuals; earnings inequality may be increasing for different groups for different reasons. Our results indicate one potential explanation for the rise in observed earnings inequality among Asians and Hispanics in the U.S.

Finally, we have examined the earnings mobility of these different race and ethnic subgroups. Using the individually linked earnings records over time, we find that all race and ethnic subgroups experience an upward trend in earnings immobility after the Great Recession. This indicates that there is less movement within the earnings distribution for all race and subgroups over time. On average, however, the Hispanic subgroups have lower absolute levels than non-Hispanic whites for all years in our analysis; Cubans tend to have the highest levels of earnings immobility while Mexicans and South Americans tend to have the lowest levels of earnings immobility. Earnings immobility measures for the Asian subgroups tend to cluster around that of non-Hispanic whites. In fact, several groups including Chinese have higher immobility than non-Hispanic whites while Koreans and Filipinos have lower earnings immobility.

Our results show that group composition and data disaggregation can provide insight into the differences within race and ethnic groups. In the absence of disaggregated data, differential trends are obscured. We have also found that for certain groups, the impact of new entrants to the labor market or new immigrants can have a profound effect on aggregate measures of inequality. Future work should account for these compositional differences, especially for certain race and ethnic groups. If certain groups experience more or less earnings mobility due to the inflow of new workers, this may play a role in our estimates of cross-race and cross-ethnic intergenerational mobility as well.

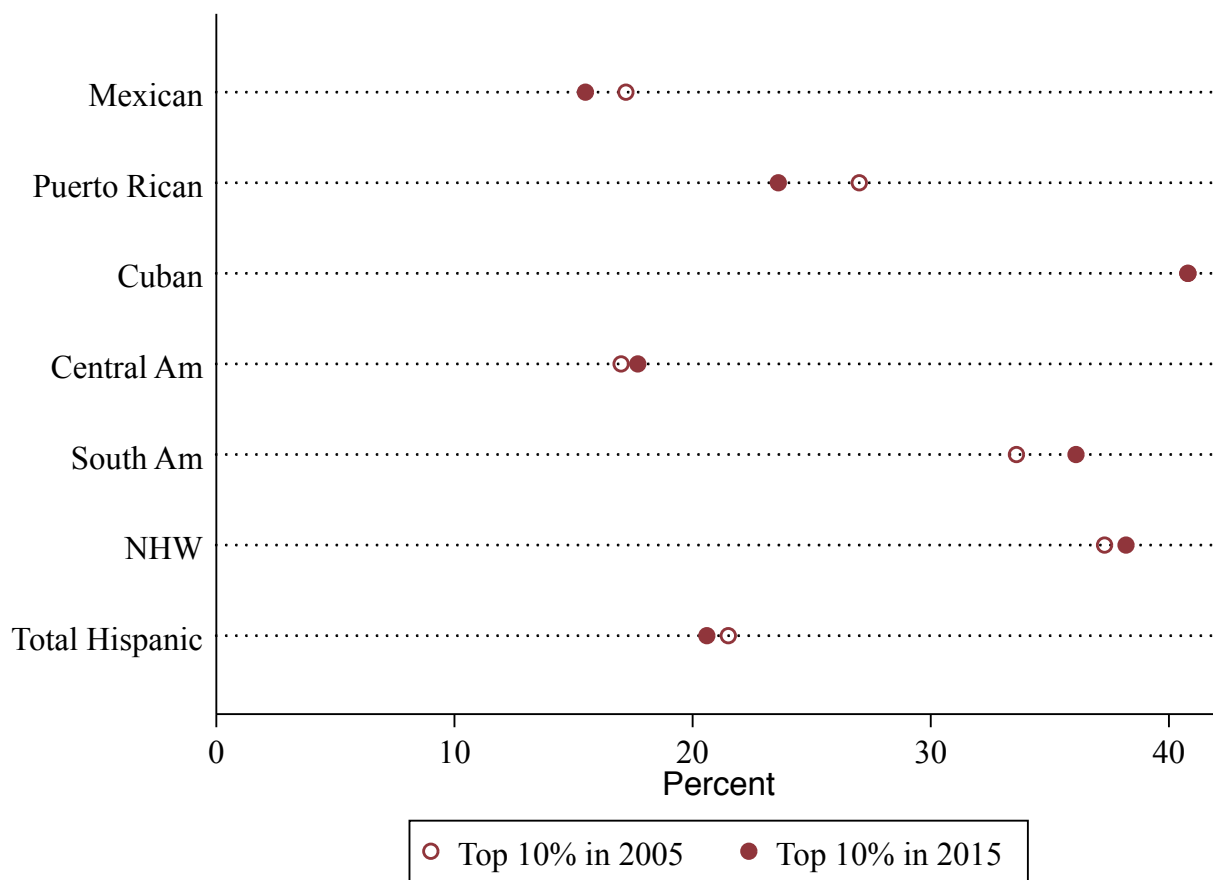
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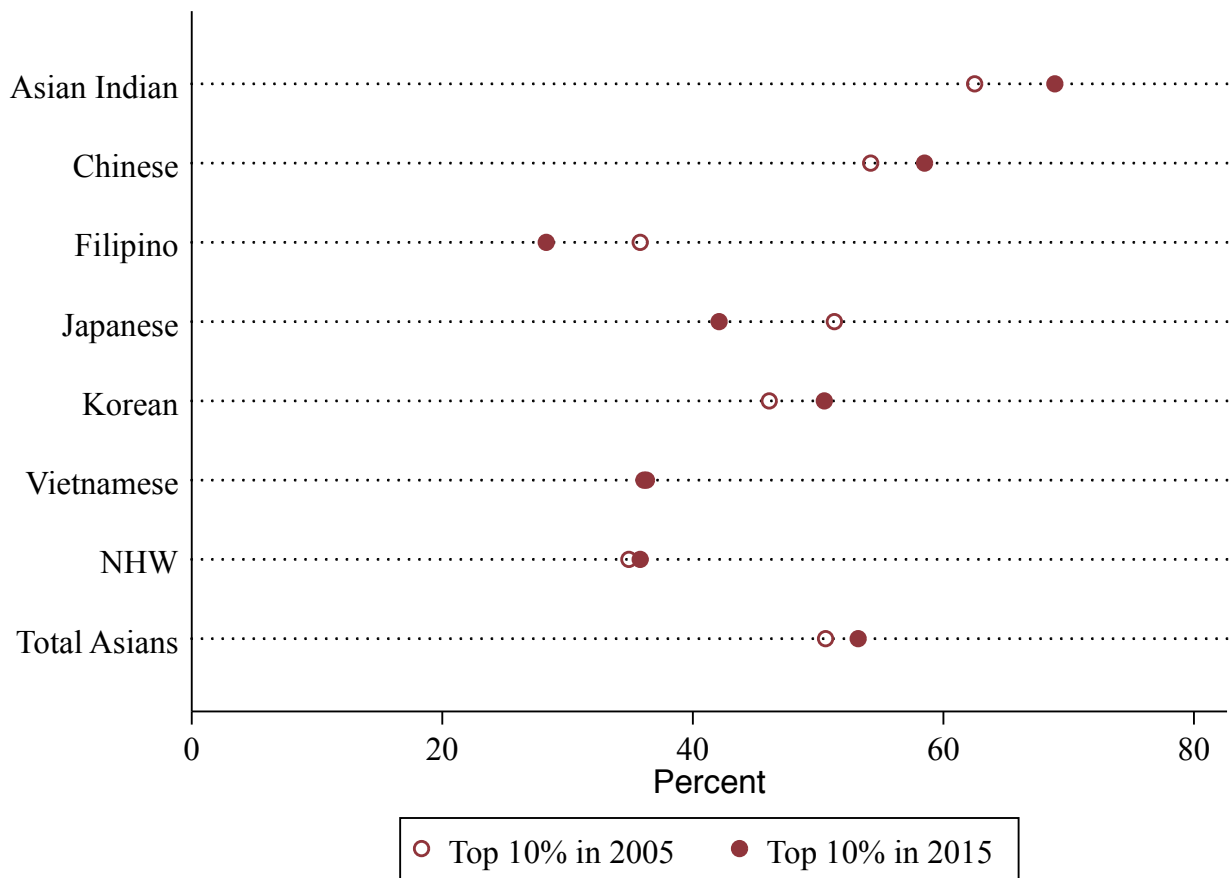
Figures

Figure 1: Top 10% Earnings Shares Panel for Hispanics in 2005 and 2015



Notes: Income shares for the top ten percent are calculated for all individuals within each of these ethnic group subpopulations for the year 2005 and 2015 and plotted accordingly. The category of non-Hispanic white is provided as a comparison; the Total Hispanic category indicates what would typically be shown with disaggregated data.

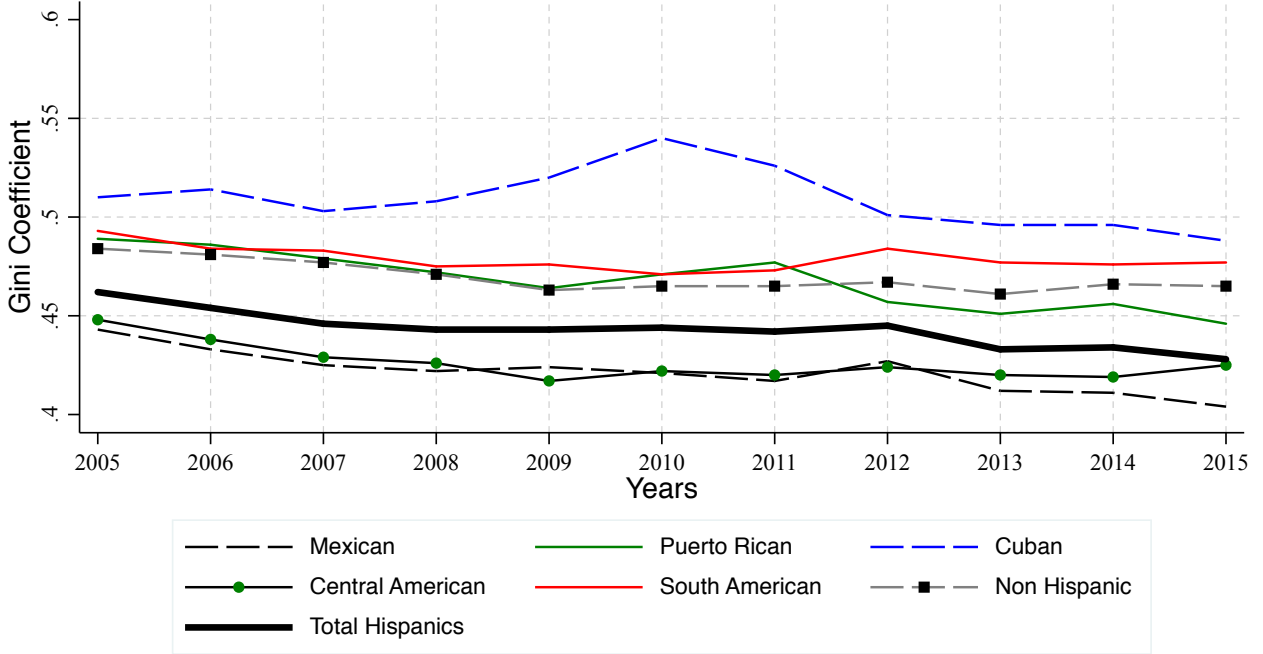
Figure 2: Top 10% Earnings Shares Panel for Asians in 2005 and 2015



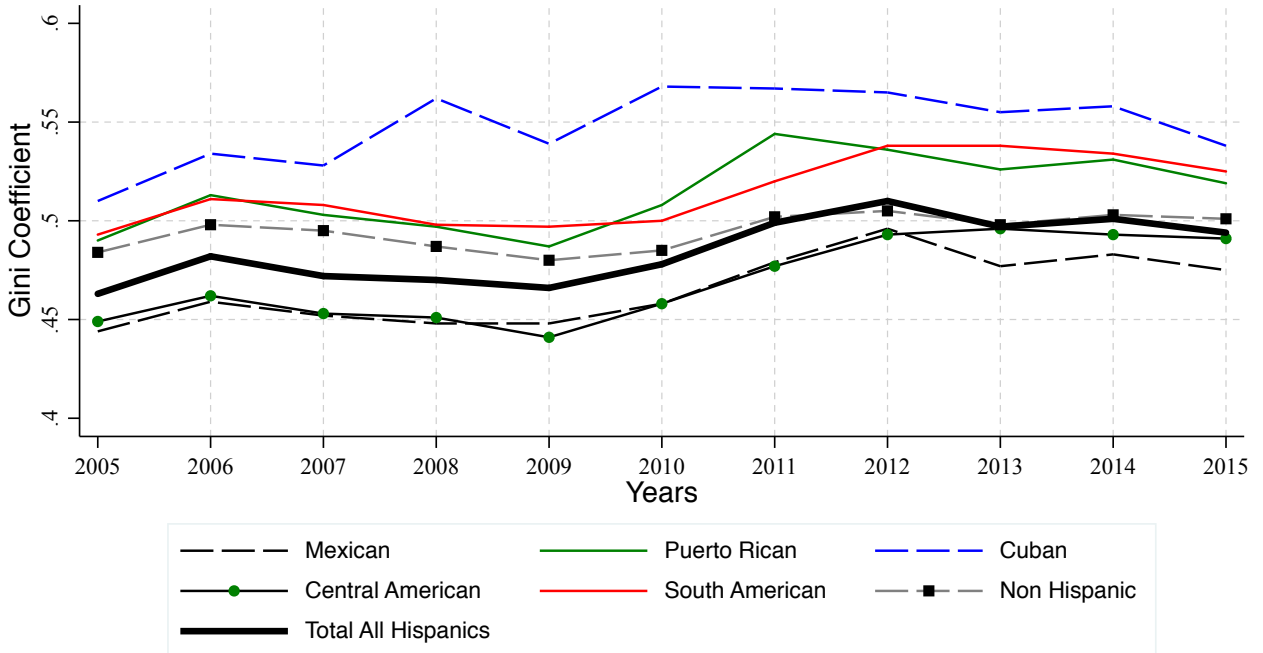
Notes: Income shares for the top ten percent are calculated for all individuals within each of these race group subpopulations for the year 2005 and 2015 and plotted accordingly. The category of non-Hispanic white is provided as a comparison; the Total Asian category indicates what would typically be shown with disaggregated data.

Figure 3: Gini Coefficients for Hispanics

Panel A: Gini Coefficients for Hispanics Panel Data



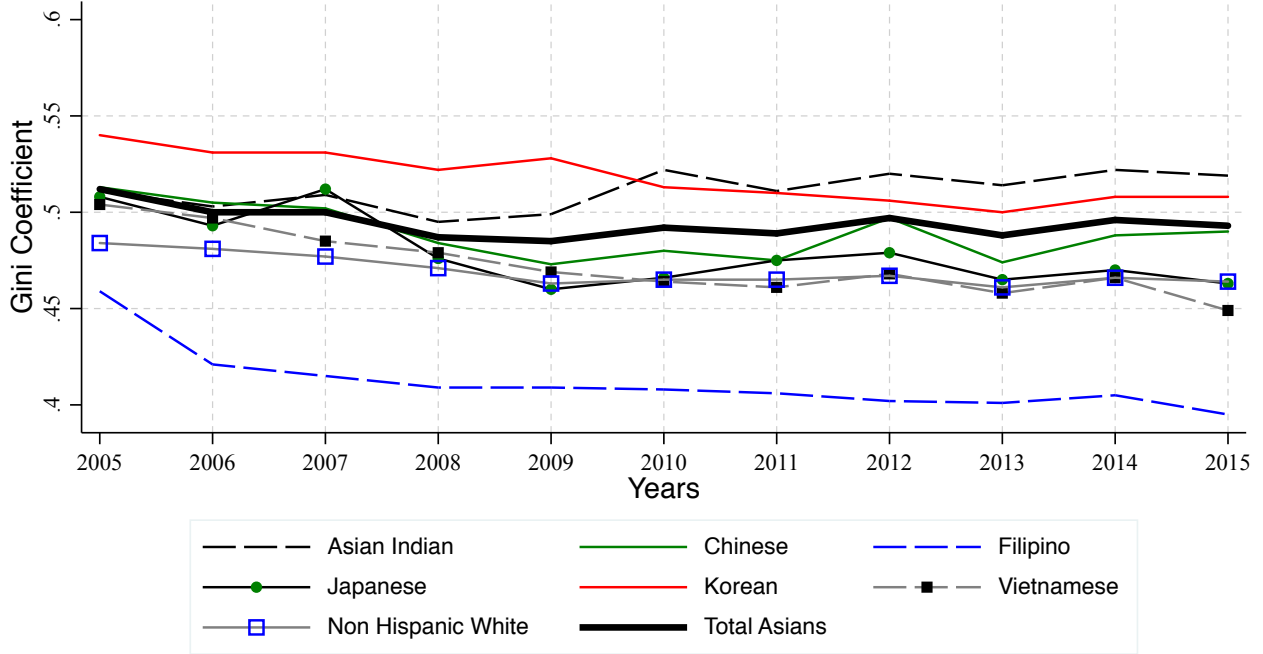
Panel B: Gini Coefficients for Hispanics Cross Section



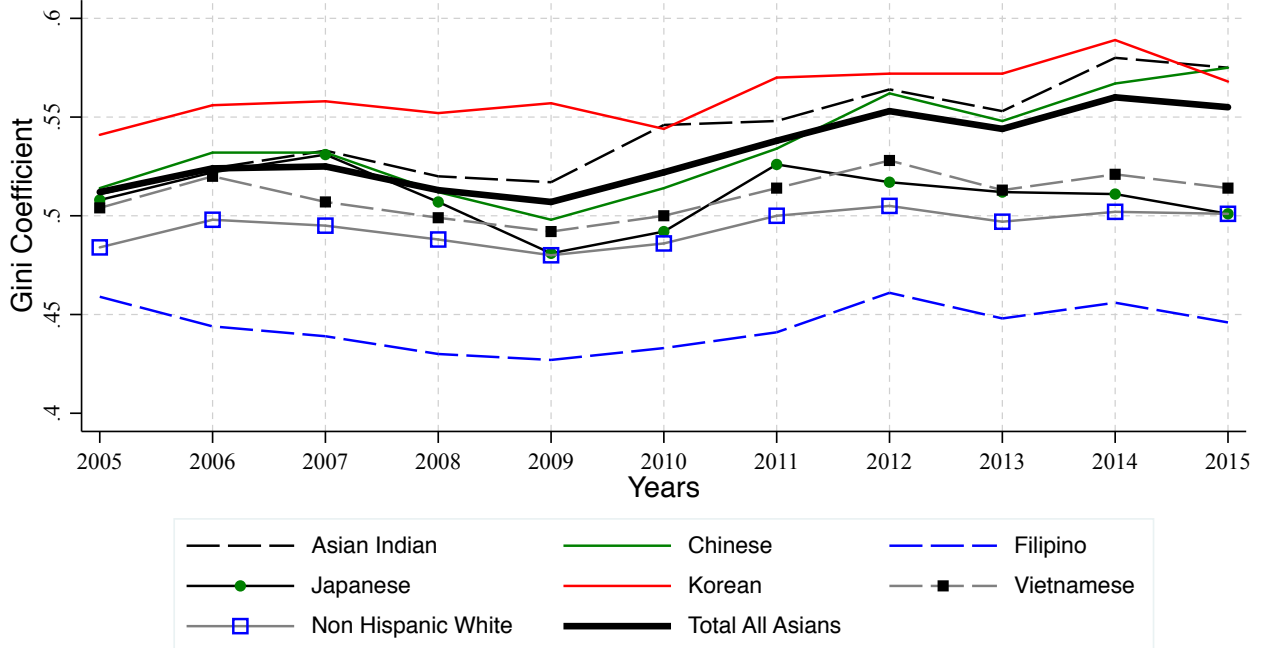
Notes: Gini coefficients are calculated within each year separately and plotted for each race or ethnic subgroup. The category of non-Hispanic white is provided as a comparison; the Total Hispanic category indicates what would typically be shown with disaggregated data. The first panel includes observations for individuals continually included in the data for all years 2005-2015; the second panel includes the observations from the prior panel plus new labor market entrants and any new immigrants as well.

Figure 4: Gini Coefficients for Asians

Panel A: Gini Coefficients for Asian Panel Data

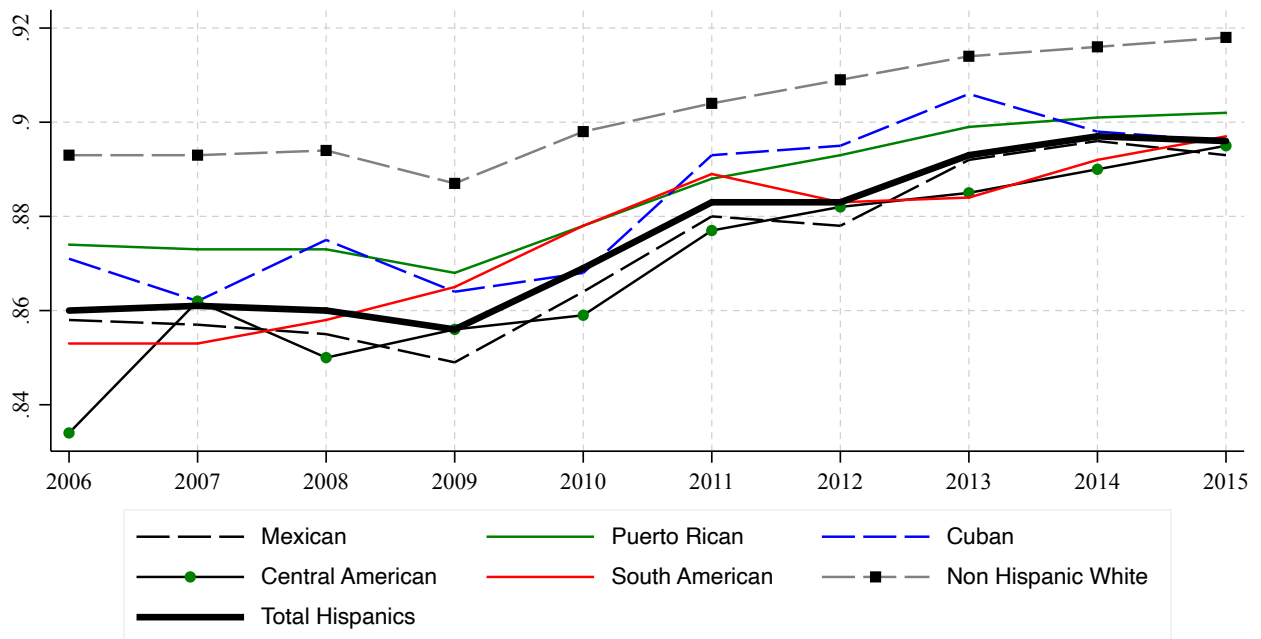


Panel B: Gini Coefficients for Asian Cross Section



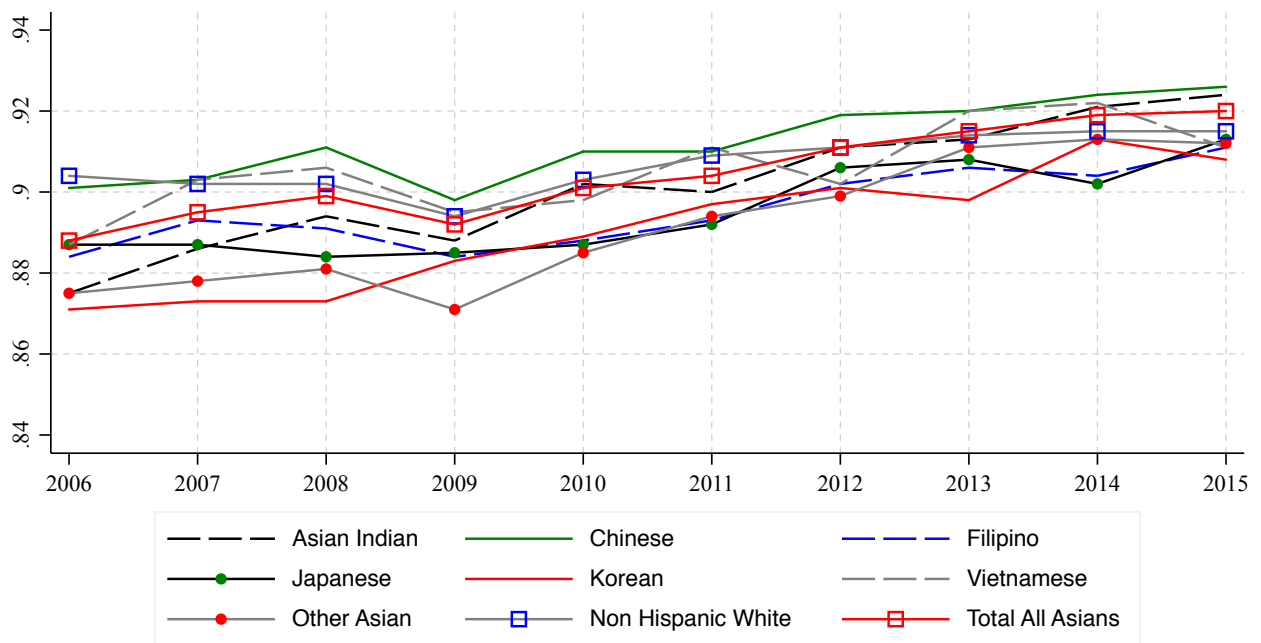
Notes: Gini coefficients are calculated within each year separately and plotted for each race or ethnic subgroup. The category of non-Hispanic white is provided as a comparison; the Total Asian category indicates what would typically be shown with disaggregated data. The first panel includes observations for individuals continually included in the data for all years 2005-2015; the second panel includes the observations from the prior panel plus new labor market entrants and any new immigrants as well.

Figure 5: Rank Correlations for Hispanics Panel



Notes: Rank correlations of earnings are calculated for the same individual and then these are averaged among all observations within the same race or ethnic subgroup. These subgroup correlations are then plotted for each race or ethnic subgroup in the figure. The category of non-Hispanic white is provided as a comparison; the Total Hispanic category indicates what would typically be shown with disaggregated data.

Figure 6: Rank Correlations for Asian Panel



Notes: Rank correlations of earnings are calculated for the same individual and then these are averaged among all observations within the same race or ethnic subgroup. These subgroup correlations are then plotted for each race or ethnic subgroup in the figure. The category of non-Hispanic white is provided as a comparison; the Total Asian category indicates what would typically be shown with disaggregated data.

Tables

Table 1: Match Rates for Hispanics and Non-Hispanic Whites, Ages 18-45

	Count	Percent of Row Above
Total Observations in 2005 ACS	1,319,000	
Matched to PIKS	1,196,000	0.91
Merged to W2 Data in 2005	988,000	0.83

Source: American Community Survey Data for 2005 linked to IRS W2 or 1099 data for 2005-2015.

Table 2: Match Rates for Asians and Non-Hispanic Whites, Ages 18-45

	Count	Percent of Row Above
Total Observations in 2005 ACS	1,295,000	
Matched to PIKS	1,193,000	0.92
Merged to W2 Data in 2005	985,000	0.83

Source: American Community Survey Data for 2005 linked to IRS W2 or 1099 data for 2005-2015.

Table 3: Table of Means for Hispanics and Non-Hispanic Whites, Ages 18-45

Panel A. Characteristics

	ACS Means	PIK Matches	W2 Matches
Ages 18-45	32.6	32.7	32.5
Wages/salary	27,900	29,100	33,300
Total Income	31,200	32,400	35,300
Married	0.55	0.55	0.54
HS or Less	0.41	0.38	0.36
Some College	0.32	0.34	0.33
College or More	0.26	0.29	0.29
In School	0.17	0.17	0.18
Male	0.49	0.49	0.51
Observations	1,319,000	1,196,000	988,000

Panel B. Racial and Ethnic Groups in Total Sample

	ACS Means	PIK Matches	W2 Matches
Total Hispanic	0.17	0.12	0.12
Mexican	0.59	0.6	0.6
Puerto Rican	0.16	0.1	0.1
Cuban	0.03	0.04	0.04
Central American	0.1	0.1	0.1
Latin American	0.06	0.07	0.07
Spanish	0.02	0.03	0.03
Other Hispanic	0.05	0.06	0.06
Non Hispanic White	0.83	0.88	0.88
Observations	1,319,000	1,196,000	988,000

Note: Data for 2006 and 2014 are from the ACS Single Year Data. They represent new labor market entrants (individuals who did not work in the previous year) and new immigrants (individuals who indicate that they arrived in the U.S. in the previous year). In Panel B, Total Hispanic is comprised of Mexican, Puerto Rican, Cuban, Central American, Latin American, Spanish, and Other Hispanic. Those percentages should total the Total Hispanic category.

Table 4: Table of Means for Asian and Non-Hispanic Whites, Ages 18-45

Panel A. Characteristics

	ACS Means	PIK Matches	W2 Matches
Ages 18-45	32.7	32.8	32.6
Wages/salary	28,900	29,800	34,200
Total Income	32,200	33,200	36,300
Married	0.55	0.56	0.55
HS or Less	0.38	0.37	0.34
Some College	0.33	0.33	0.34
College or More	0.29	0.3	0.32
In School	0.17	0.17	0.18
Male	0.48	0.49	0.51
Observations	1,295,000	1,193,000	985,000

Panel B. Racial and Ethnic Groups in Total Sample

	ACS Means	PIK Matches	W2 Matches
Asian Total	0.06	0.06	0.05
Asian Indian	0.21	0.21	0.21
Chinese	0.24	0.23	0.24
Filipino	0.18	0.19	0.21
Japanese	0.06	0.06	0.06
Korean	0.1	0.09	0.08
Vietnamese	0.11	0.11	0.1
Other Asian	0.11	0.11	0.11
Non Hispanic White	0.94	0.94	0.95
Observations	1,295,000	1,193,000	985,000

Note: Data for 2006 and 2014 are from the ACS Single Year Data. They represent new labor market entrants (individuals who did not work in the previous year) and new immigrants (individuals who indicate that they arrived in the U.S. in the previous year). In Panel B, Total Asian is comprised of Asian Indian, Chinese, Filipino, Japanese, Korean, Vietnamese, and Other Asian. Those percentages should total the Total Asian category.

A Appendix Tables

Table A1: Table of Earnings for New Labor Market Entrants and Immigrants for 2006 and 2014, Hispanic and Asian Populations

Panel A. Hispanic Labor Market Entrants and New Immigrants				
	New Entrants 2006	New Entrants 2014	New Immigrants 2006	New Immigrants 2014
Ages 18-45	29.7	27.8	28.9	29
Wages/salary	15,600	15,000	25,300	19,800
Total Income	19,000	17,800	25,900	22,200

Panel B. Asian Labor Market Entrants and New Immigrants				
	New Entrants 2006	New Entrants 2014	New Immigrants 2006	New Immigrants 2014
Ages 18-45	29.7	27.9	29.5	28.8
Wages/salary	16,180	15,500	23,500	19,900
Total Income	19,600	18,400	24,000	21,800

Table A2: Earnings Shares for Hispanics

Percentile		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
10	NHW	0.004	0.004	0.005	0.005	0.005	0.005	0.005	0.005	0.006	0.006	0.006
10	Mexican	0.006	0.007	0.007	0.008	0.008	0.009	0.01	0.01	0.011	0.011	0.011
10	Puerto Rican	0.006	0.006	0.007	0.007	0.007	0.008	0.008	0.01	0.01	0.011	0.011
10	Cuban	0.003	0.004	0.005	0.004	0.005	0.005	0.005	0.005	0.005	0.006	0.005
10	Central Am	0.006	0.007	0.007	0.008	0.008	0.009	0.01	0.01	0.01	0.01	0.01
10	Latin Am	0.004	0.004	0.005	0.005	0.005	0.006	0.006	0.006	0.006	0.006	0.006
10	Total Hispanic	0.006	0.006	0.007	0.008	0.008	0.008	0.009	0.009	0.01	0.01	0.01
90	NHW	0.373	0.376	0.378	0.373	0.36	0.368	0.373	0.378	0.373	0.383	0.382
90	Mexican	0.172	0.169	0.166	0.164	0.157	0.154	0.153	0.172	0.155	0.159	0.155
90	Puerto Rican	0.27	0.279	0.277	0.279	0.268	0.268	0.276	0.257	0.246	0.249	0.236
90	Cuban	0.408	0.425	0.408	0.422	0.439	0.459	0.455	0.409	0.399	0.411	0.408
90	Central Am	0.17	0.167	0.17	0.176	0.16	0.16	0.159	0.17	0.166	0.167	0.177
90	Latin Am	0.336	0.339	0.338	0.336	0.333	0.33	0.335	0.356	0.35	0.359	0.361
90	Total Hispanic	0.215	0.217	0.214	0.213	0.207	0.207	0.209	0.217	0.204	0.209	0.206
95	NHW	0.261	0.267	0.27	0.265	0.251	0.26	0.266	0.272	0.266	0.276	0.276
95	Mexican	0.091	0.089	0.087	0.086	0.081	0.078	0.079	0.099	0.082	0.085	0.082
95	Puerto Rican	0.167	0.179	0.178	0.177	0.166	0.169	0.177	0.151	0.149	0.154	0.14
95	Cuban	0.292	0.309	0.29	0.315	0.324	0.349	0.351	0.304	0.299	0.301	0.308
95	Central Am	0.1	0.099	0.099	0.101	0.093	0.092	0.093	0.103	0.096	0.097	0.108
95	Latin Am	0.232	0.231	0.235	0.228	0.232	0.229	0.236	0.257	0.248	0.251	0.251
95	Total Hispanic	0.128	0.13	0.128	0.128	0.124	0.124	0.128	0.136	0.122	0.126	0.124

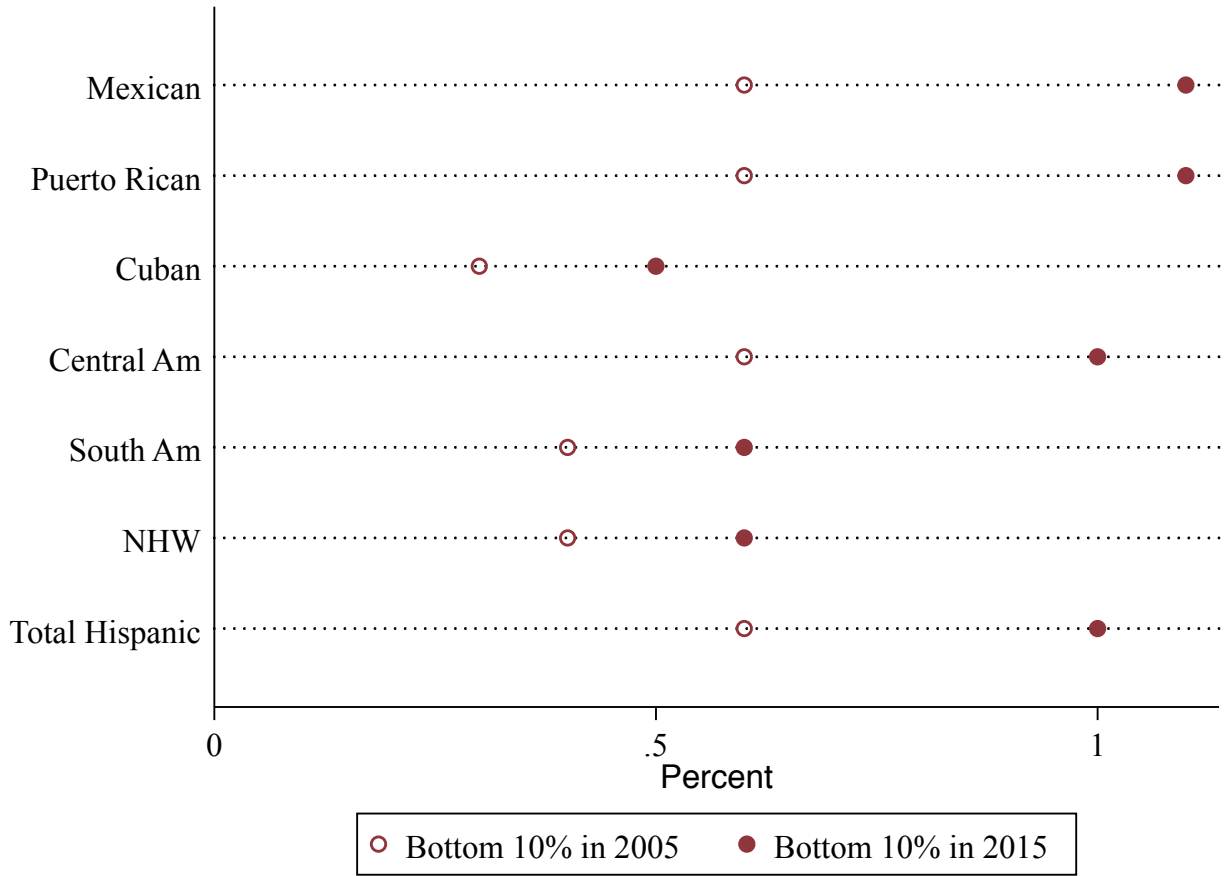
Source: American Community Survey Data for 2005 linked to IRS W2 or 1099 data for 2005-2015. Note from May 2019 DRB.

Table A3: Earnings Shares for Asians

Percentile		2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
10	NHW	0.005	0.005	0.005	0.006	0.006	0.006	0.006	0.006	0.007	0.007	0.007
10	Asian Indian	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
10	Chinese	0.003	0.003	0.003	0.003	0.003	0.002	0.003	0.003	0.003	0.003	0.003
10	Filipino	0.003	0.003	0.004	0.003	0.004	0.004	0.004	0.004	0.004	0.005	0.004
10	Japanese	0.003	0.003	0.004	0.004	0.003	0.003	0.004	0.004	0.004	0.005	0.005
10	Korean	0.006	0.006	0.006	0.006	0.005	0.005	0.005	0.006	0.007	0.006	0.007
10	Vietnamese	0.005	0.006	0.006	0.006	0.006	0.006	0.007	0.006	0.007	0.008	0.007
10	Other Asian	0.006	0.006	0.006	0.007	0.007	0.006	0.007	0.006	0.007	0.008	0.008
10	Total Asians	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.004	0.004	0.004
90	NHW	0.349	0.353	0.354	0.349	0.338	0.345	0.35	0.356	0.349	0.359	0.358
90	Asian Indian	0.625	0.637	0.651	0.645	0.659	0.687	0.673	0.685	0.682	0.689	0.689
90	Chinese	0.542	0.552	0.559	0.552	0.551	0.565	0.564	0.591	0.572	0.586	0.585
90	Filipino	0.358	0.316	0.317	0.318	0.318	0.307	0.299	0.296	0.288	0.294	0.283
90	Japanese	0.513	0.484	0.481	0.443	0.424	0.439	0.435	0.44	0.429	0.435	0.421
90	Korean	0.461	0.467	0.478	0.488	0.502	0.483	0.486	0.497	0.497	0.514	0.505
90	Vietnamese	0.361	0.376	0.362	0.356	0.349	0.357	0.36	0.37	0.375	0.384	0.363
90	Other Asian	0.303	0.319	0.336	0.346	0.339	0.354	0.363	0.366	0.375	0.365	0.375
90	Total Asians	0.506	0.506	0.514	0.508	0.512	0.527	0.52	0.534	0.525	0.536	0.532
95	NHW	0.242	0.248	0.251	0.246	0.233	0.242	0.247	0.254	0.247	0.257	0.256
95	Asian Indian	0.446	0.453	0.472	0.468	0.478	0.517	0.504	0.512	0.509	0.523	0.524
95	Chinese	0.38	0.387	0.391	0.381	0.378	0.394	0.401	0.432	0.411	0.423	0.425
95	Filipino	0.212	0.155	0.162	0.158	0.165	0.156	0.148	0.147	0.149	0.158	0.143
95	Japanese	0.399	0.371	0.362	0.313	0.295	0.302	0.302	0.316	0.305	0.314	0.292
95	Korean	0.334	0.342	0.341	0.347	0.363	0.339	0.348	0.352	0.335	0.367	0.361
95	Vietnamese	0.225	0.242	0.239	0.227	0.225	0.226	0.224	0.248	0.24	0.255	0.232
95	Other Asian	0.206	0.215	0.223	0.236	0.236	0.246	0.262	0.258	0.275	0.263	0.271
95	Total Asians	0.351	0.346	0.355	0.345	0.349	0.367	0.363	0.379	0.369	0.384	0.379

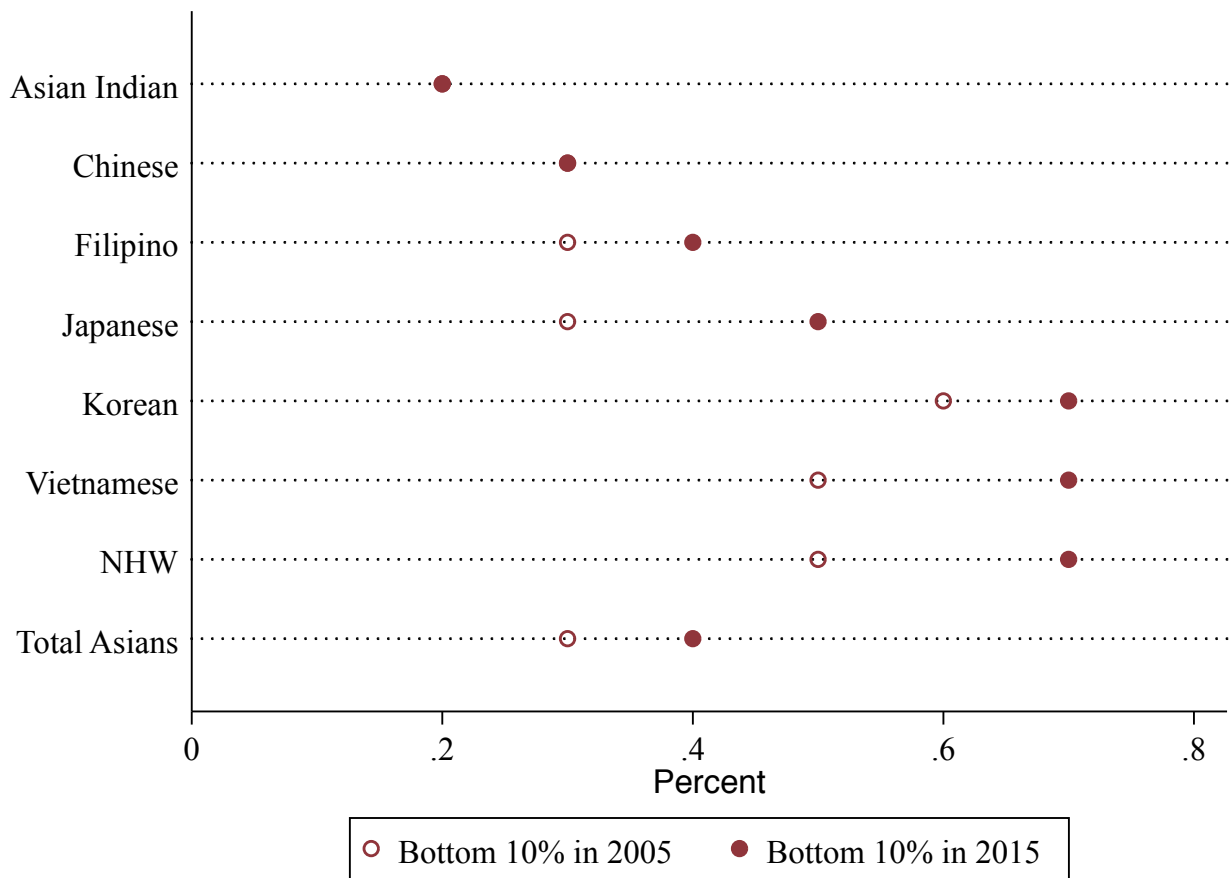
Source: American Community Survey Data for 2005 linked to IRS W2 or 1099 data for 2005-2015. Note from May 2019 DRB

Figure A1: Bottom 10% Earnings Shares Panel for Hispanics in 2005 and 2015



Notes: Income shares for the bottom ten percent are calculated for all individuals within each of these ethnic group subpopulations for the year 2005 and 2015 and plotted accordingly. The category of non-Hispanic white is provided as a comparison; the Total Hispanic category indicates what would typically be shown with disaggregated data.

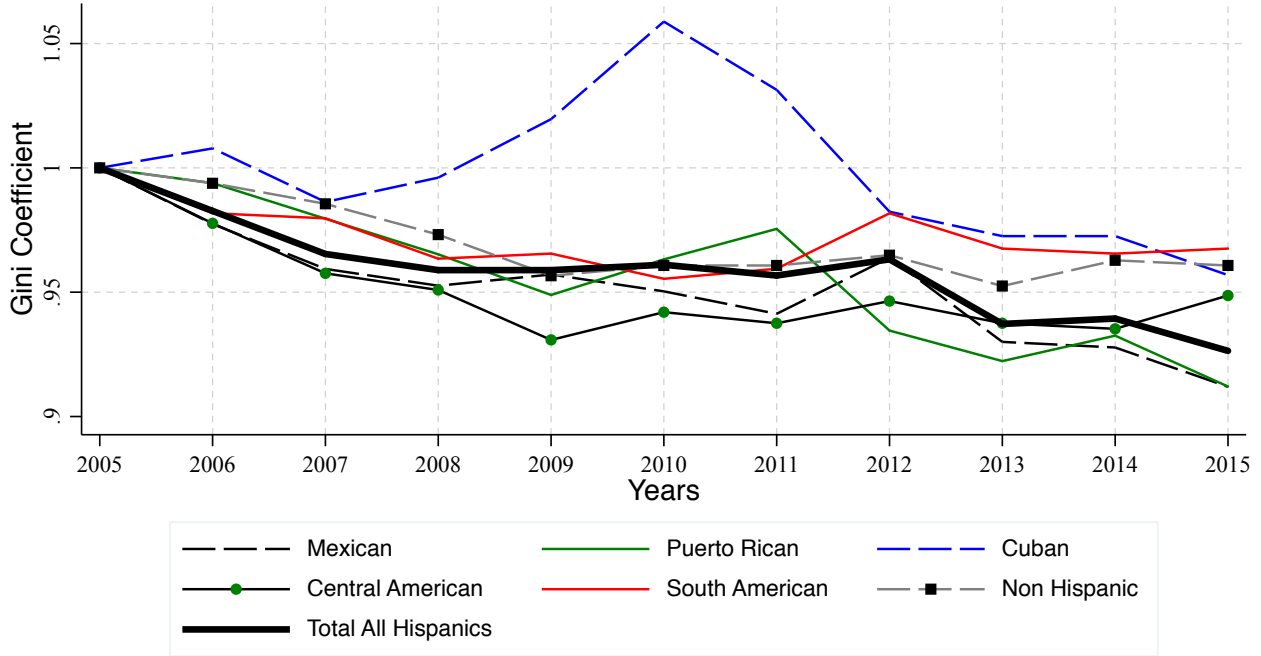
Figure A2: Bottom 10% Earnings Shares Panel for Asians in 2005 and 2015



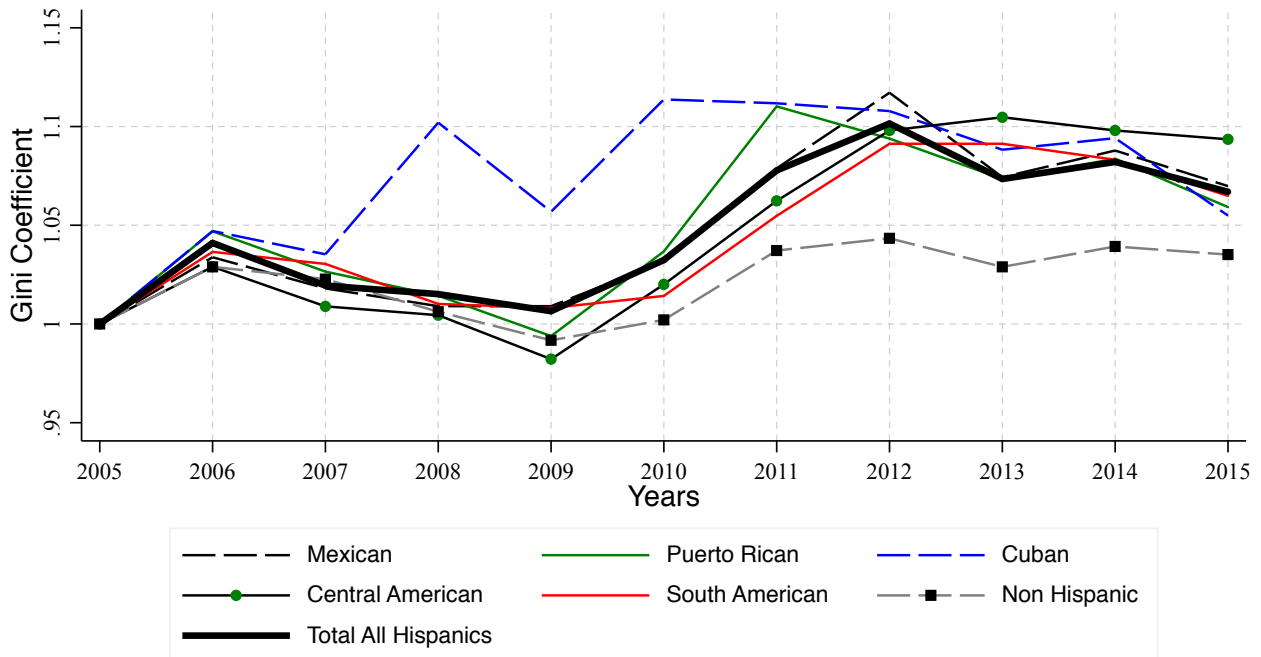
Notes: Income shares for the bottom ten percent are calculated for all individuals within each of these ethnic group subpopulations for the year 2005 and 2015 and plotted accordingly. The category of non-Hispanic white is provided as a comparison; the Total Hispanic category indicates what would typically be shown with disaggregated data.

Figure A3: Gini Coefficients for Hispanics with 2005 as Base Year

Gini Coefficients for Hispanics Panel Data with 2005 as Base Year



Gini Coefficients for Hispanics Cross Section with 2005 as Base Year



Notes: These two figures take 2005 as the base year and normalize all subsequent Gini coefficients by that amount. Thus, these figures indicate a relative change for the Gini coefficients relative to 2005. As was done previously, the Gini coefficients are calculated within each year separately and plotted for each race or ethnic subgroup. The category of non-Hispanic white is provided as a comparison; the Total Hispanic category indicates what would typically be shown with disaggregated data. The first panel includes observations for individuals continually included in the data for all years 2005-2015; the second panel includes the observations from the prior panel plus new labor market entrants and any new immigrants as well.

Figure A4: Log Earnings Ratios (90/50) for Hispanics Panel

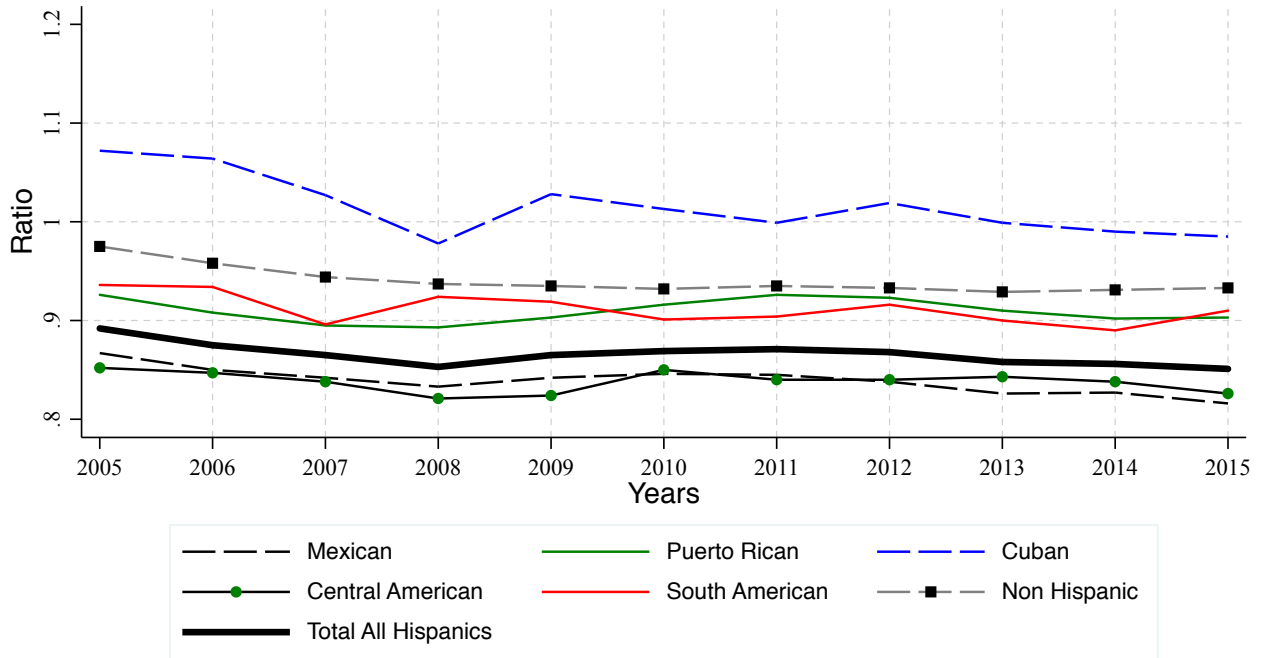


Figure A5: Log Earnings Ratios (50/10) for Hispanics Panel

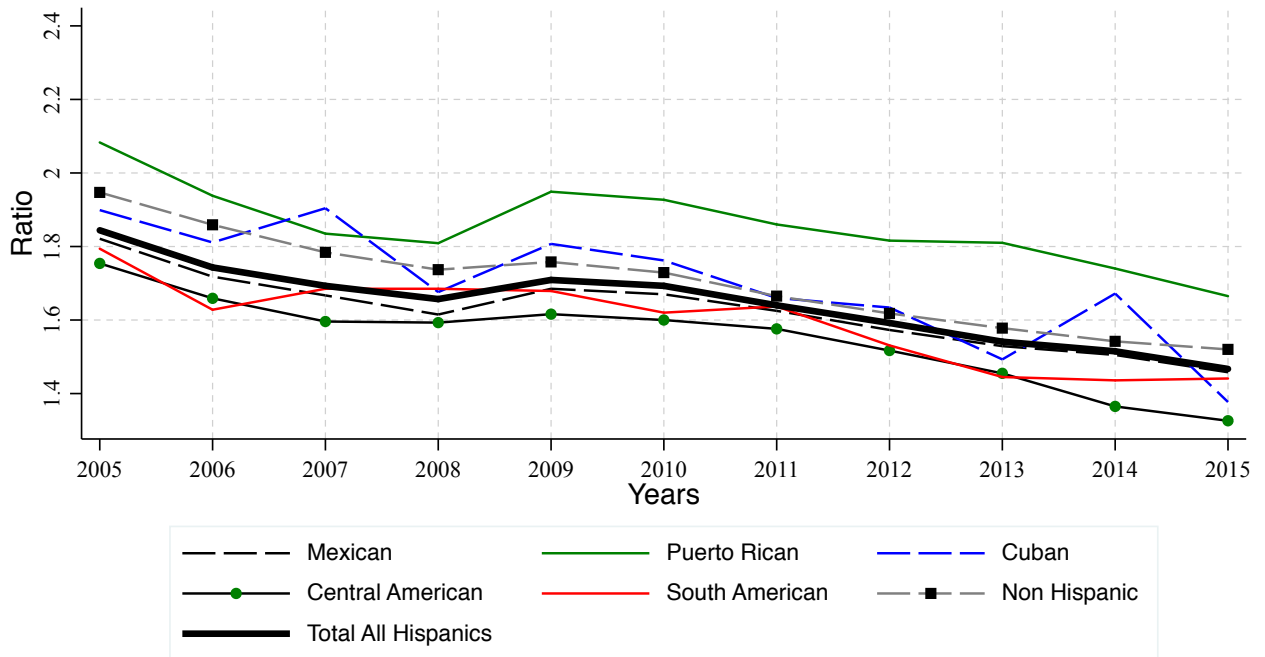
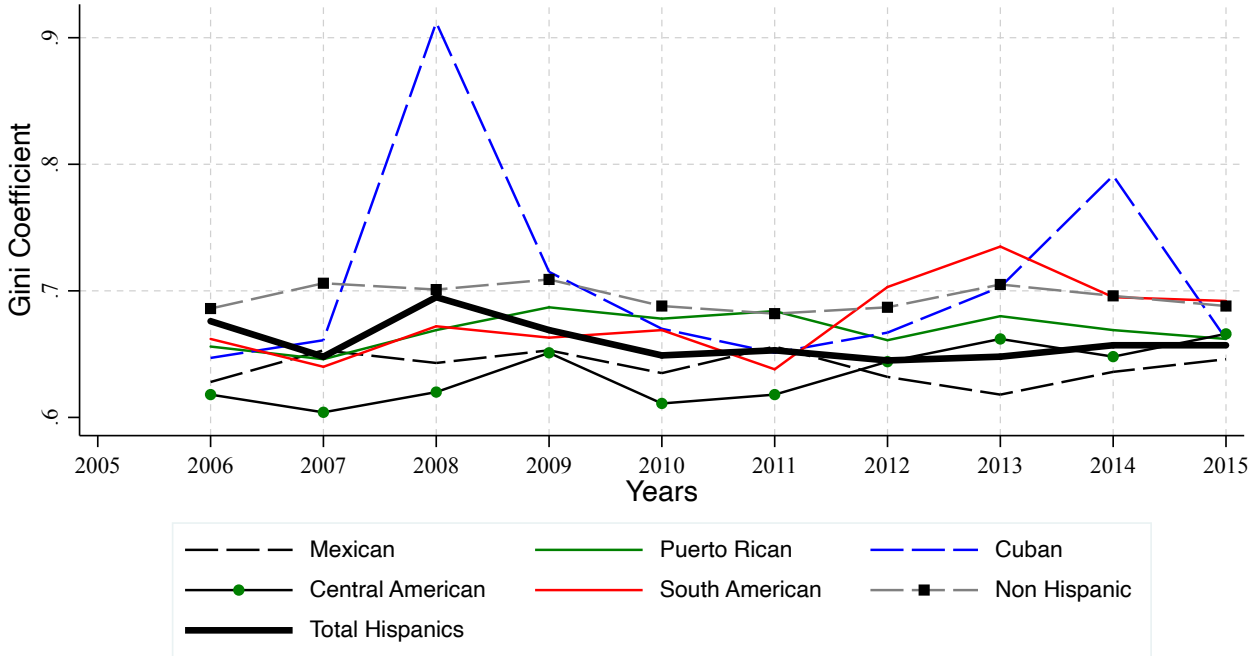
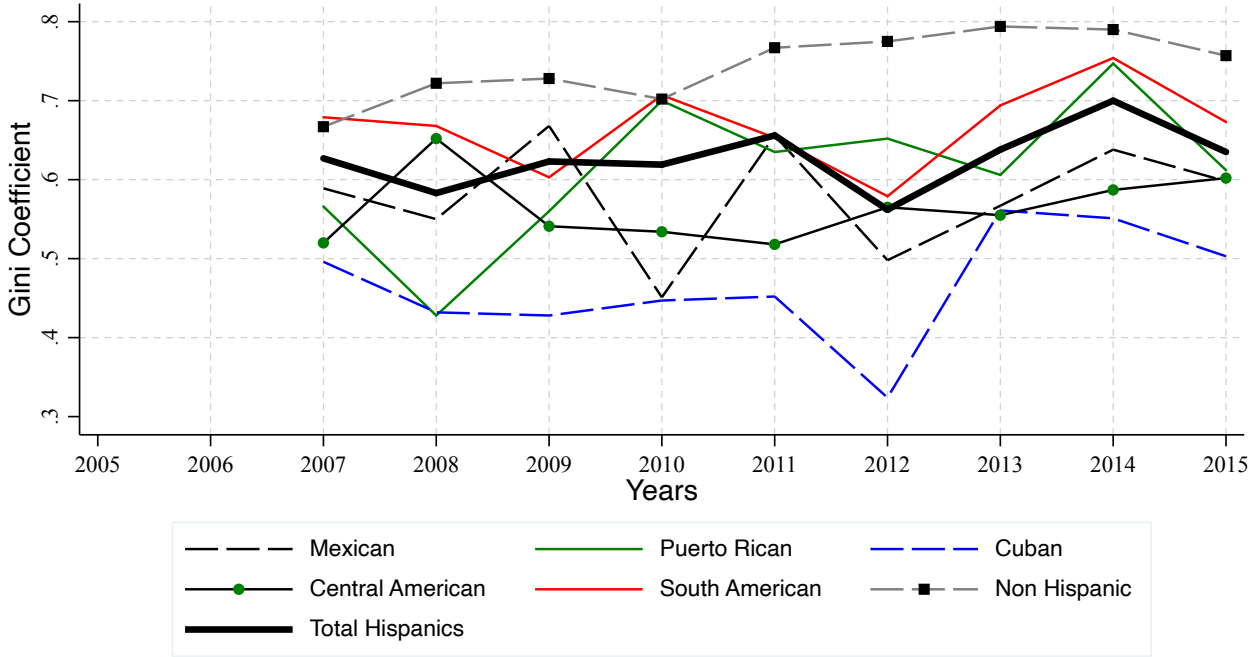


Figure A6: Gini Coefficients for Hispanics for New Labor Market Entrants and New Immigrants Only

Gini Coefficients for Hispanics for New Labor Market Entrants



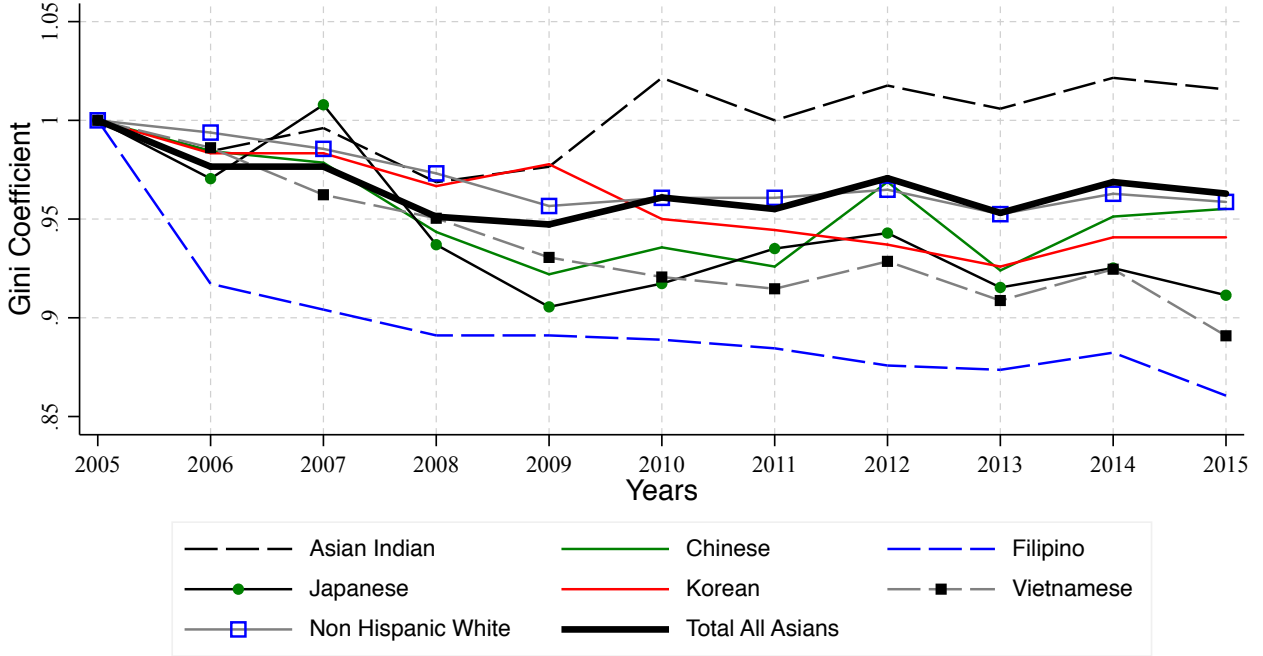
Gini Coefficients for Hispanics for New Immigrant Arrivals



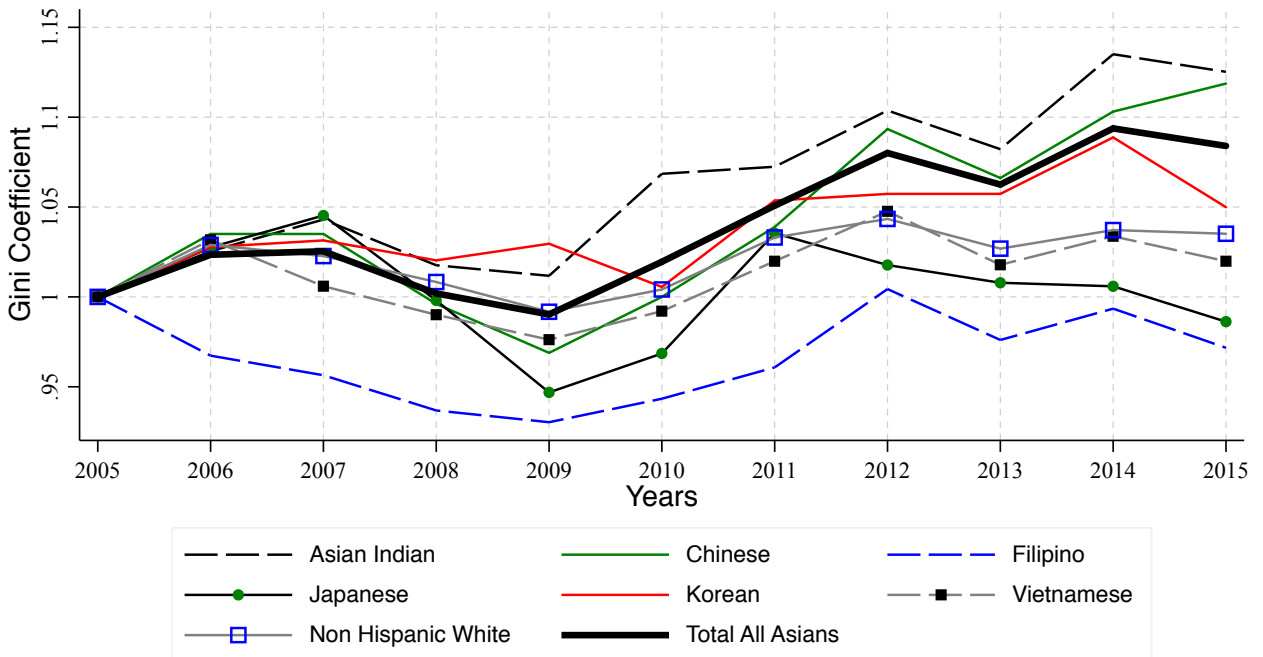
Notes: These two figures show the Gini Coefficients for new labor market entrants and new immigrant arrivals, respectively. In the top figure, we start at the year 2006 since these individuals are new to the labor market; that is they were not working in 2005. In the bottom figure, we have individuals who arrived as new immigrants in 2005 but were not working in 2006 and, therefore, start the series in 2007. Both of these samples include the cumulative additions in each year of either new labor market entrants or new immigrant arrivals until the end of the series.

Figure A7: Gini Coefficients for Asians with 2005 as Base Year

Gini Coefficients for Asians Panel with 2005 as Base Year



Gini Coefficients for Asians Cross Section with 2005 as Base Year



Notes: These two figures take 2005 as the base year and normalize all subsequent Gini coefficients by that amount. Thus, these figures indicate a relative change for the Gini coefficients relative to 2005. As was done previously, the Gini coefficients are calculated within each year separately and plotted for each race or ethnic subgroup. The category of non-Hispanic white is provided as a comparison; the Total Asian category indicates what would typically be shown with disaggregated data. The first panel includes observations for individuals continually included in the data for all years 2005-2015; the second panel includes the observations from the prior panel plus new labor market entrants and any new immigrants as well.

Figure A8: Log Earnings Ratios (90/50) for Asian Panel

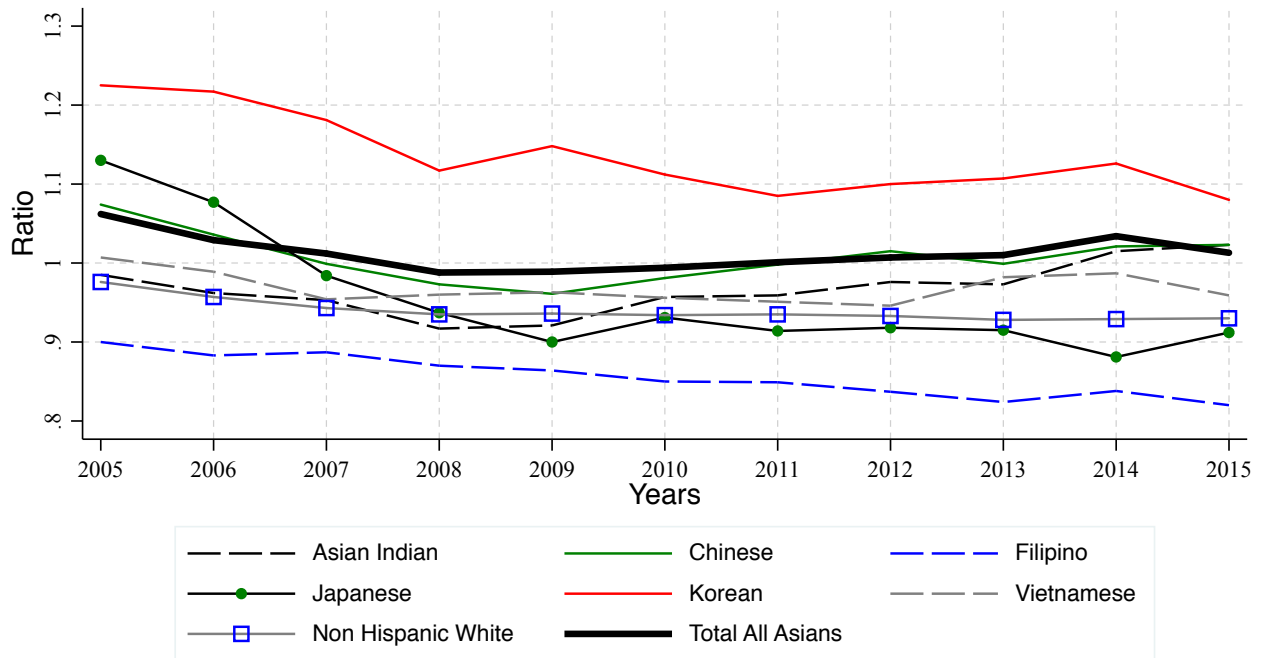


Figure A9: Log Earnings Ratios (50/10) for Asian Panel

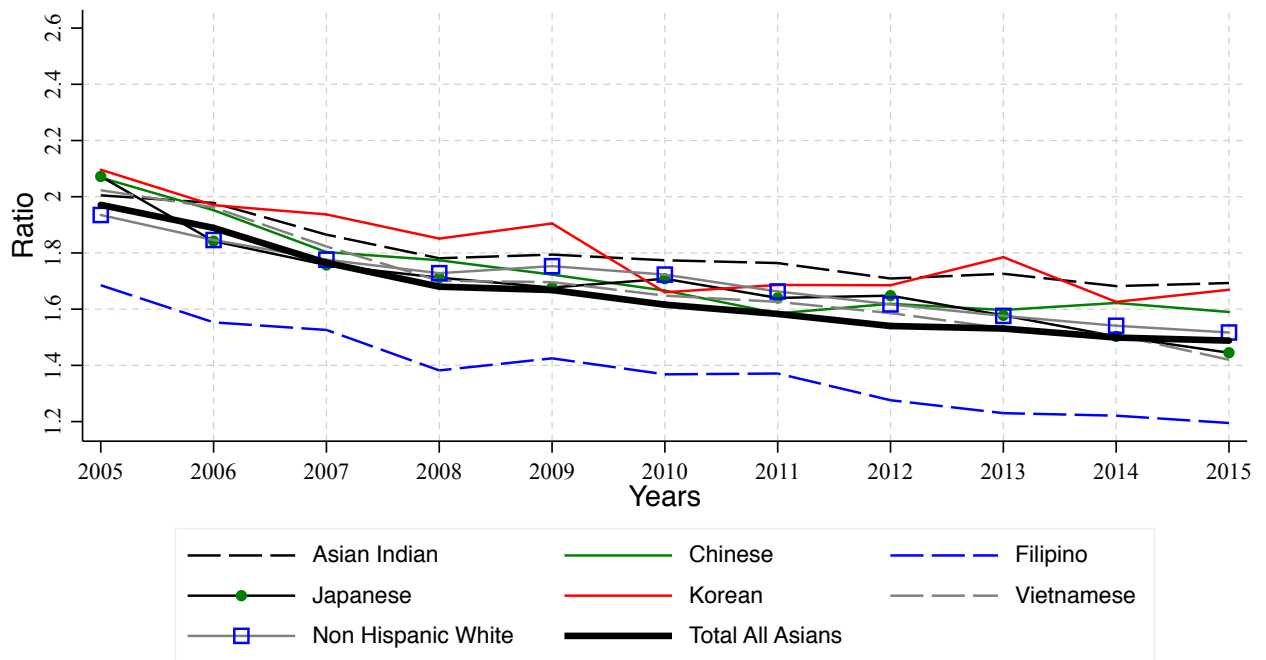
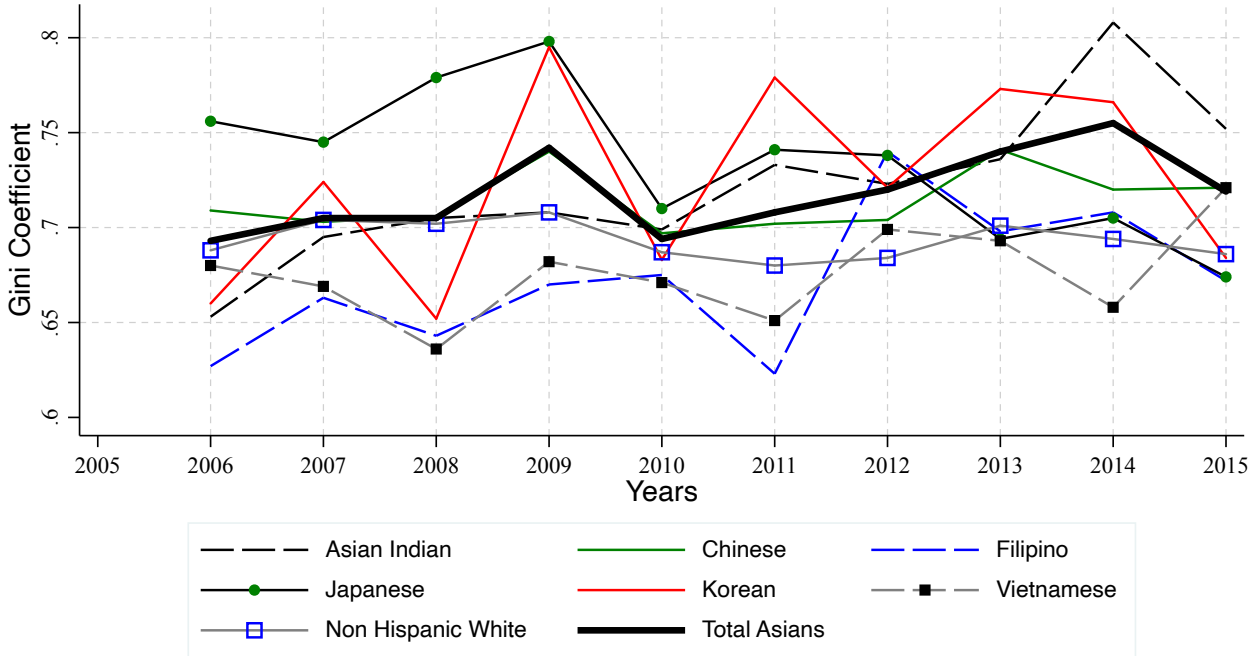
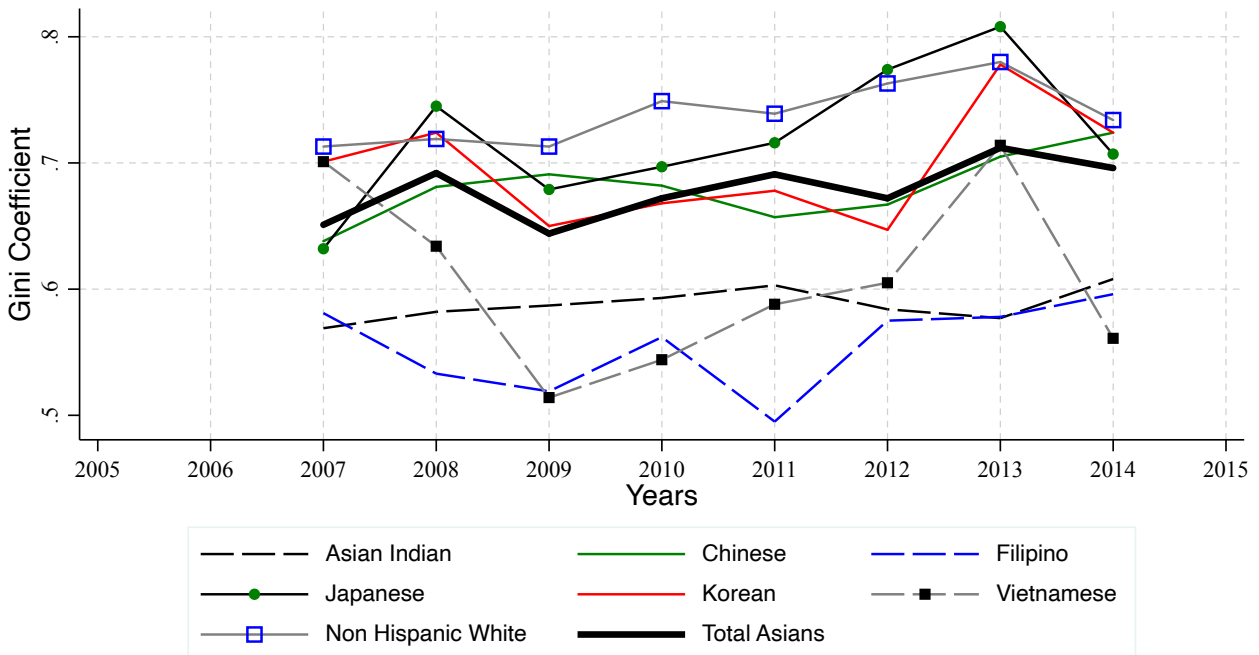


Figure A10: Gini Coefficients for Asians for New Labor Market Entrants and New Immigrants Only

Gini Coefficients for Asians for New Labor Market Entrants



Gini Coefficients for Asians for New Immigrant Arrivals



Notes: These two figures show the Gini Coefficients for new labor market entrants and new immigrant arrivals, respectively. In the top figure, we start at the year 2006 since these individuals are new to the labor market; that is they were not working in 2005. In the bottom figure, we have individuals who arrived as new immigrants in 2005 but were not working in 2006 and, therefore, start the series in 2007. Both of these samples include the cumulative additions in each year of either new labor market entrants or new immigrant arrivals until the end of the series.