Changes and Continuities Overtime in Socioeconomic and Health Insurance Status of Undocumented and Documented Immigrants

******EXTENDED ABSTRACT FOR SUBMISSION TO PAA. PLEASE DO NOT QUOTE OR CITE******

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In 2015, the foreign born population was approximately 43 million people or about 13 percent of the total US population. Roughly three quarters of all immigrants were documented, i.e., naturalized citizens or authorized to be in the US. The other one quarter were undocumented (Radford & Budiman, 2018; US Census Bureau, 2018). However, a recent public opinion poll indicates that most Americans do not know that the overwhelming majority of immigrants are documented. Only 45% said that that most immigrants are in the US legally (Pew Research Center, 2018).

In fact, the public as well as policymakers and researchers know relatively little about the lives of undocumented immigrants and socioeconomic differentials for immigrants by documentation status. Despite the daily news coverage on immigrants and immigration policy, nationally representative population-based information on the characteristics of documented and undocumented immigrants is quite limited. The US Census Bureau and other organizations routinely collect and publish data on the foreign-born population as a whole and on naturalized citizens, but they do not collect data on documentation status[1] and, thus, cannot report on the characteristics of the undocumented and documented populations separately. Qualitative studies and small scale surveys (Abrego & Lakhani, 2015; Arbona et al., 2010; Gleeson & Gonzales, 2012; Gonzales, 2011; Menjivar & Enchautegui, 2015). have provided detailed and rich descriptions of the differences that documentation status can make in immigrants' lives. But their results are based on small, local samples and they do not yield national population-based quantitative estimates of well-being and social integration.[2] This lack of population-based information itself can have important consequences for the public debate about immigration and for policy. In the absence of information, it is easier to make assumptions and/or assertions about immigrants that may or may not be true.

Despite the lack of population-based estimates of socioeconomic status by documentation status, it is clear from previous research that undocumented immigrants in the US are far more socioeconomically

[1] Very few surveys and no federal government surveys ask direct questions about documentation status for respondents who are not citizens or legal permanent residents, both to avoid increasing refusal rates in surveys and to protect the privacy and safety of respondents.

[2] An exception is work by Borjas (Borjas, 2017b, 2017a) using methods similar to those used in this paper to estimate the labor force participation rates and incomes of immigrants by documentation status. In contrast to Borjas, we use data from the Survey of Income and Program Participation (SIPP) which includes legal permanent residence (LPR) status. We believe the inclusion of LPR status in our estimation procedure improves the estimates. We also examine a wider range of outcomes and analyze changes over time.

vulnerable than those with documentation. Public safety-net programs explicitly exclude the undocumented (Hacker, Anies, Folb, & Zallman, 2015; Ortega et al., 2007; Sommers, Buchmueller, Decker, Carey, & Kronick, 2013), they face greater social prejudice and discrimination in the labor market and elsewhere, and they have to cope with insecurity caused by legitimate fears of apprehension, lengthy detention, and deportation (Berk & Schur, 2001; Hagan, Rodriguez, & Castro, 2011; Menjívar & Abrego, 2012). The surge in deportations during the Obama administration and the constant threat of even more aggressive immigration enforcement from the Trump administration are likely to have greatly increased insecurity and marginalization of the undocumented population (Amuedo-Dorantes & Pozo, 2014; Gonzalez-Barrera & Krogstad, 2014; Torres et al., 2018) over time. The great recession between 2007 and 2009 may also have hit undocumented migrants harder than other immigrants because of their more marginal economic status.

In this paper, we use newly develop methods to estimate the probability that individual foreign born respondents are documented or undocumented in the Survey of Income and Program Participation (SIPP). We use these estimated probabilities to compare four aspects of socioeconomic status for the foreign born population by documentation status: income and poverty, employment, home ownership, and health insurance coverage. By using three waves of SIPP which straddle the great recession, we can also examine changes in over a decade in the well-being of documented and undocumented immigrants and the differential effects of the recession on both groups.

Data

The SIPP is a large-scale sample survey that represents the resident population of the United States, excluding persons living in institutions and military barracks. Our study uses three SIPP panels: 2004, 2008, and 2014. The 2004 and 2008 SIPP panels revisited respondents every four months and the respondents are asked to answer questions about each of the four preceding months. We used data referring to the most recent reference month. At each visit, respondents also answered a special topical module. We used Wave 2 of the 2004 and 2008 panels when the SIPP asked survey respondents their migration history. The SIPP conducted Wave 2 of the 2004 panel between June and September of 2004 and Wave 2 of the 2008 panel between January and April of 2008. The 2014 SIPP underwent a significant redesign. In the new design, the SIPP revisited respondents once every 12 months to collect information about each month in the preceding calendar year. We used Wave 1 from the 2014 SIPP which was collected in February 2014 and data from the most recent reference month (December

2013). We limited our analytic sample to respondents aged 18 to 60 at the time of interview. The 2004 panel had 59,407 respondents, 7,507 of whom were immigrants; the 2008 panel had 55,891 respondents, 8,502 of whom were immigrants; and the 2014 panel had 40,525 respondents, 6,349 of whom were immigrants. Thirty-three immigrant respondents in the 2014 SIPP had missing values for place of US residence. We included these observations in our descriptive analysis but excluded them from our multivariate analysis.

Documentation Status

The SIPP panel data do not contain variables that explicitly identify whether an immigrant is documented or not. Our analysis of undocumented and documented immigrants in the SIPP is based on a prediction model that has been derived from another dataset that contains information on a person's documentation status (Sohn & Pebley, 2018). We developed this prediction model based on prior work that uses indirect methods to describe the undocumented immigrant population living the US (Bachmeier, Van Hook, & Bean, 2014; Hall & Greenman, 2015; Hall, Greenman, Farkas, & Armenta, 2010; Passel & Cohn, 2011; Van Hook, Bachmeier, Coffman, & Harel, 2015). Our model predicts the probability of being undocumented for all respondents who were not born as US citizens. While it is not possible to directly test the accuracy of the model's performance in predicting documentation status at the national level, we have been able to successfully predict whether an immigrant has become a naturalized US citizen using the 2004 SIPP (Sohn & Pebley, 2018).

Year of Entry into the United States

Year of entry into the US is recorded in the SIPP's public use file as multiple categories that vary in length. For example, the 2004 SIPP categorizes immigrants who moved to the US during 1985 and 1986 as one category and immigrants who moved during 1987 and 1988 as another. The 2008 SIPP categorizes immigrants who moved to the US between 1986 and 1988 as a single category. We followed Bachmeier and Van Hook's approach (Bachmeier et al., 2014) and randomly assigned immigrants into one of the entry years included in the category. About 25 percent of the immigrant respondents in the 2004 SIPP did not provide a valid year of entry into the US. We improved upon the SIPP's hot-deck imputation of these missing values by applying a multiple imputation that predicted a person's year of entry from socio-demographic characteristics. For each immigrant, we derived the number of years lived in the US from the year of entry and the survey year to make comparisons across 2004, 2008, and 2014.

Measures of Socioeconomic Status

We examined five variables from the SIPP that indicates a respondent's socioeconomic well-being: family income for the month, occupation, work status, whether the respondent (or a family member) owns their living quarters, and their health insurance coverage status. We standardized family income across SIPP years by examining income as a ratio of federal poverty level (FPL) for the survey year. The FLP also accounts for family size. The SIPP records respondents' occupation using the Public Use Microdata Sample (PUMS) census occupation code list. We harmonized the occupation across the three SIPP years and grouped them into five major occupations: Management, Business, Science, and Arts; Service; Sales and Office; Natural Resources, Construction, Maintenance; and Production and Transportation. We added a sixth group for respondents who did not have a job or a business during the reference month. We created a work status variable that differentiates respondents who were consistently employed from respondents who had at least one week during the reference month without employment or pay. We categorized respondents as unemployed if they indicated that they were unemployed the entire month and spent at least one week looking for employment. Again, we added a category for respondents who were not in the labor market. The homeownership variable has two categories: yes, owns living quarters, and no, does not own living quarters. The latter group includes respondents who were renting or living without payment in their home. Lastly, based on the SIPP's detailed questions on health insurance, we created two insurance coverage variables: had private health insurance and uninsured.

Demographic Characteristics

In our descriptive tables, we examined documented and undocumented immigrants' average age, sex, race, place of birth, education, marital status, English language competency, and place of US residence. We were unable to examine geographic regions at a detailed level because the 2014 SIPP collapsed coding for place of birth into a few regional categories. To provide comparable results across all panels, we include only three categories for place of birth. The first category, the Americas, includes Canada, Central/South Americas, as well as the Caribbean. The second encompasses countries in Asia and the Pacific, and the third category includes the rest of the world spanning Europe, Africa, and the Middle East. We grouped place of US residence into nine census divisions. We include a map of the US division in the appendix.

Method

We applied the prediction model to immigrant respondents in the SIPP to derive a probability of being undocumented for each observation. From these assigned individual probabilities, we calculated the aggregate probability of being undocumented or documented conditional on a characteristic. For example, we calculated the probability of being undocumented conditional on being female. We then applied Bayes Theorem (Bayes & Price, 1763) to derive the probability of being female conditional on being undocumented. For continuous characteristics such as age, years lived in the US, and family income as a percentage of FPL, we computed the weighted average of the values using the predicted probability of being undocumented as the weights. In our descriptive tables, we also present the characteristics of the US-born population during the same period for comparison. Our multivariate analysis examined immigrants' socioeconomic well-being as a function of documentation status (probability of being documented), year of survey, and the interaction of year and documentation status. All models controlled for years lived in the US, age, sex, place of birth, and US place of residence. We used an Ordinary Least Squares regression to estimate family income as a percentage of FPL and logistical regressions to estimate the remaining dichotomous indicators of SES. We used the SIPP's individual weights in both our descriptive and multivariate analyses.

Results

We examined three cross-sectional surveys from 2004, 2008, and 2014. Changes from year to year in the immigrant population may reflect the out-migration of immigrants who were living the US, new immigrants who entered between surveys, the changing age distribution of immigrants, and immigrants' mortality. Thus, the composition of the immigrant population may change considerably from that in another wave to another and, therefore, our results do not necessarily represent changes over time in the well-being of the same population. Rather they are snap-shots of the immigrant population which was in the US at three points in time. In this analysis, we focus on presenting the characteristics of immigrants by documentation status rather than absolute numbers of undocumented and documented immigrants in the US at a given time point.

Descriptive Results

Our description of the basic demographic characteristics of immigrants (Table 1) supports the findings from existing studies that used data from the Department of Homeland Security and the American Community Survey (Baker & Rytina, 2013). Undocumented immigrants are disproportionately younger adults, less educated, male, and from the Americas compared to documented immigrants. Our data

also shows differences in immigrant characteristics between 2004 and 2014. Most notably, the proportion of documented immigrants who were from Asia and Pacific was only about 26 percent in 2004 but was 40 percent in 2014. Conversely, the proportion from the Americas declined from 52 percent to 41 percent over the same period. For the undocumented, the proportion from the Americas was quite high—over 93 percent—throughout the study period. Educational attainment for both documented and undocumented immigrants was higher in 2014 than 2004. About 20 percent of undocumented immigrants in 2014 had some postsecondary education—compared to 13 percent in 2004. Documented immigrants' educational attainment was also higher; in 2014, about a quarter had a 4-year college degree, and an additional 16 percent had a post-graduate degree. Marital status of documented immigrants was roughly the same in 2004 and 2014. For undocumented immigrants, a greater proportion were divorced or cohabitating in 2014 than in 2004. One of the more striking differences between 2004 and 2014 among undocumented immigrants was self-reported English language competency. In 2004, less than 8 percent reported that they spoke English at home and only 15 percent reported speaking it well. By 2014, the comparable figures were 33 and 22 percent. English language competency was consistently high for documented immigrants. Where immigrants lived in the US also shifted between 2004 and 2014. In 2004, about a third of immigrants lived in the Pacific Division of the US (California, Washington, Oregon, Alaska, and Hawaii). While the Pacific Division remained the most common place for immigrants in 2014, a greater proportion of undocumented immigrants lived in South Atlantic (Delaware through Florida) and New England (Maine through Connecticut). The share of documented immigrants rose slightly in West North Central (the Dakotas and Minnesota through Kansas and Missouri) and West South Central (Oklahoma, Arkansas, Texas, and Louisiana).

Table 2 presents the socioeconomic characteristics of documented and undocumented immigrants. We also present the characteristics of the US-born population to provide national context. Undocumented immigrants are disproportionaly represented in occupations in service, natural resources (which includes farming occupations), construction, maintenance, production, and transportation. Key changes between 2004 and 2014 were increases in the proportion of undocumented immigrants who did not have a job or a business (25 percent to 35 percent) and in those who worked in management, business, science, or arts (4.2 percent to 7.8 percent). Documented immigrants' occupation generally mirrors the distribution of the US-born population. Work status of immigrants and US-born alike suffered in 2008 compared to 2004 and 2014. The 2008 SIPP was administered in early 2008 when unemployment was beginning to climb (Grusky, Western, & Wimer, 2011). The impact was largest for undocumented

immigrants, probably because of their greater participation in industries that were affected most severely by the recession. Only 32 percent of undocumented immigrants in 2004 lived in a house that they or a family member owned compared to 71 percent among US-born natives and 59 percent among documented immigrants. Perhaps as a result of low rates homeownership among undocumented immigrants did not decline during the recession and its aftermath. A decline in health insurance coverage was also apparent in 2008 but less so for undocumented immigrants who were far more likely to be uninsured in all years than other groups. Undocumented immigrants had the lowest average income (% of FPL) in all years and the decrease in income between 2004 and 2008 was the most precipitous for this group.

Multivariate Results

We use multivariate models to examine the association of documentation status with employment characteristics and measures of financial well-being, while holding constant compositional differences between the 2004, 2008, and 2014 cross-sections. The analysis is restricted to the foreign born population. We include the year of survey and its interaction with the probability of being undocumented to test differences over time between the three dates. We also included basic demographic variables as controls.

Our first set of models (Table 3) examines income as the outcome variable in a multivariate regression. Being undocumented is associated with a roughly 244 percentage-point lower family income as a percent of FPL[3]. In 2004, the average FPL among all immigrants was about 1,490 dollars per month. In 2014, income was significantly higher for documented immigrants than in 2004 (119 %FPL). Income disparity between documented and undocumented immigrants also increased by 156 %FPL. Figure 1 displays the predicted relationship between income and the probability of being undocumented for each survey year. The income gradient is notably steeper in 2014 compared to prior surveys.

In our second set of results, shown in Tables 4 and 5, we examine the probability of having high SES followed by low SES as a function of the probability of being undocumented. Table 4 looks at high SES indicators: consistent employment, home ownership, private health insurance, and a high-skill

[3] Patterns in household income were similar to family income.

occupation. The direction and significance of the main effects are not surprising: being undocumented is associated with lower likelihood of all four dependent variables. The gap between undocumented and documented immigrants in the likelihood of having consistent employment was even larger in 2008, i.e., during the recession. Figure 2 demonstrates the sharp drop in the proportion of undocumented immigrants who were employed in 2008. The disparity between undocumented and documented in homeownership, private insurance, and high-skill occupations, however, was significantly smaller in 2008 and 2014. Figure 3 shows the gradual attenuation of the disparity between 2004 and 2014 in the likelihood of having a high-skill occupation.

Table 5 examines results for variables indicating low SES—unemployment, lack of health insurance, an income lower than 138% of FPL, and a low-skill occupation in natural resources, construction, maintenance, production, and transportation. Except for unemployment, being undocumented was associated with a higher likelihood of having these indicators of lower SES. The likelihood of not having health insurance was particularly high for undocumented immigrants compared to their documented counterparts, most likely in part because they are not eligible for publicly funded health insurance programs. Likelihood of being unemployment was not statistically different between the documented and undocumented in 2004. The changes in the disparity in 2008 and 2014 vary. The disparity in unemployment emerged during the recession in 2008 with undocumented immigrants having about 2.3 times greater odds of being unemployed. Figure 4 shows the sharply higher likelihood of unemployment among undocumented immigrants in 2008. Disparity in poverty (FPL < 138%) also grew during 2008. The significant disparity in the likelihood of being uninsured fell in later years even as the rate of uninsurance rose among documented immigrants during the 2008 recession. The likelihood of working in a lower skill occupation was lower in 2008 and 2014 than in 2004 for documented immigrants and slightly greater for undocumented immigrants.

Conclusion

We demonstrate that there are major differences in the lives of the documented and undocumented immigrant population. The results confirm evidence from earlier studies which used non-nationally representative samples. Compared to those with documents, undocumented immigrants are much more likely to be Latino, to come from the Americas, to have poor educational attainment, and to live in the Pacific, West South Central, and South Atlantic region. However, our results also demonstrate the sheer size of the undocumented disadvantage, even when compositional differences by documentation

status are held constant. For example, undocumented immigrants have five times the odds of being poor compared to documented immigrants and they have almost 250 times the odds of not having health insurance. They are also almost five times more likely to work in low wage, physically stressful jobs (construction, maintenance, production, and transportation). Undocumented immigrants also have only 0.7 times the odds of having consistent work in the past month compared to documented immigrants. These and other results confirm and amplify the seriously disadvantaged circumstances, on average, under which undocumented immigrants live.

We also compared differences in immigrant well-being at three time points between 2004 and 2014. Undocumented immigrants' relative disadvantage in income and employment, compared to documented immigrants, was significantly starker in 2008 during the Great Recession. To some degree, this finding may be surprising because undocumented immigrants were likely to have had the option to return to their home countries during the recession rather than facing deteriorating employment conditions in the US. Consistent with this idea that many may have returned is the fact that the gap in undocumented vs. documented immigrant income did not grow significantly between 2004 and 2008. However, for those undocumented immigrants who were in the US during 2008, the gap compared to documented immigrants was significantly larger than in 2004 for almost every other indicator of well-being that we looked.

Our results also show that that the well-being of the undocumented population improved between 2004 and 2014. Compared to 2004, greater proportion of undocumented immigrants have some post-secondary education and work in higher skill jobs in management, business, science, and arts in 2014. Rates of private insurance coverage and homeownership are also higher in 2014, and these differences reduced the wide socioeconomic inequality between documented and undocumented immigrants seen in earlier years. In interpreting the results, it is important to keep in mind that the differences between years may be due as much (or more) to return migration to home countries and new waves of immigration to the US as it is to improvements in employment and other conditions for undocumented immigrants. For example, because of the recession, stricter border enforcement, and/or increased deportation of migrants during this period, undocumented migrants with lower skills levels, earning ability, or connections to the US may have decided to leave the US. Those left behind or newly arriving in the US may also have been more likely to have better chances of economic success.

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Table 1. Basic Demographic Characteristics of US Immigrant Population by Status and Year

		2004 (n = 7,507)		2008 (n=8,502)		2014 (n=6,349)	
		Documented	Undocumented	Documented	Undocumented	Documented	Undocumented
Percentage of Immigrant Population (%)		78.2	21.8	73.1	26.9	69.6	30.4
Average Age		39.8	31.3	40.6	33.9	41.5	35.4
Sex (%)	Male	48.9	59.3	48.7	57.4	48.0	54.1
	Female	51.1	40.7	51.3	42.6	52.0	45.9
Race (%)	Non-Hispanic White	28.7	12.2	28.0	11.7	18.9	4.3
	Latino/a	34.1	81.7	32.8	81.0	34.5	85.5
	African American	10.3	3.9	10.9	5.1	9.9	6.8
	Asian	25.2	1.8	26.2	1.8	35.4	2.9
	Other	1.8	0.3	2.0	0.4	1.3	0.5
Place of Birth (%)	Americas	51.9	95.4	49.7	94.9	40.8	93.6
	Asia and Pacific	25.9	1.3	31.6	1.6	40.1	3.2
	Europe, Africa, and Other	22.2	3.3	18.7	3.5	19.1	3.2
Education (%)	Less than High School	23.8	59.6	17.4	48.1	17.3	46.3
	High School Graduate	18.5	27.0	20.9	35.5	19.2	33.5
	Some College	27.7	9.2	28.8	10.7	23.4	11.9
	College Graduate	18.1	3.2	20.5	4.4	24.5	5.5
	Post Graduate	11.9	1.0	12.4	1.4	15.6	2.7
Marital Status (%)	Currently Married	67.7	54.0	66.9	53.0	68.4	50.1
	Separated	2.7	3.9	2.2	3.2	2.1	3.9
	Widowed	1.2	0.3	1.5	0.6	1.2	0.3
	Divorced	5.9	3.1	5.9	5.4	5.3	6.8
	Cohabitating	4.3	8.4	4.7	9.3	5.3	13.2
	Never Legally Married	18.2	30.3	18.7	28.5	17.7	25.7
English Language (%)	Only speaks English at home	25.9	7.8	29.7	12.6	36.3	33.4
	Very well	33.3	15.1	34.0	19.0	34.9	22.2
	Well	17.1	14.6	15.5	17.8	15.7	17.6
	Not well	16.1	35.4	15.2	31.7	10.1	19.6
	Not at all	7.6	27.1	5.6	19.0	3.1	7.1
US Residence (%)	New England	5.3	1.8	4.6	2.3	4.5	3.5
	Middle Atlantic	17.9	9.6	16.6	8.2	17.9	11.9
	East North Central	9.0	7.7	8.7	9.3	9.4	7.5
	West North Central	2.4	3.0	3.1	3.8	3.9	2.8
	South Atlantic	18.2	17.3	20.2	17.7	17.5	21.7
	East South Central	1.2	1.7	1.4	2.6	1.4	1.7
	West South Central	9.1	16.6	9.6	17.4	10.3	16.2
	Mountain	5.4	9.1	5.9	9.2	5.6	8.2
	Pacific	31.4	33.2	29.8	29.4	29.5	26.5

Data Source: SIPP 2004, 2008, 2014

Sample is limited to adults aged 18-60. Documentation status and characteristics are predicted using an equation. Documented Immigrants include naturalized US Citizens.

Table 2. Socioeconomic Characteristics of the SIPP Sample by Immigrant Status and Year

		2004 (n = 59,407)			2008 (n=55,891)			2014 (n=40,525)		
		US Born Native	Documented	Undocumented	US Born Native	Documented	Undocumented	US Born Native	Documented	Undocumented
Percentage of the Sample SIPP (%)		85.4	11.2	3.3	84.2	11.3	4.5	82.4	12.8	4.8
Occupation (%)	None	18.7	22.1	24.6	21.7	24.2	28.2	33.3	32.1	35.0
	Mgmt. Business, Science, Arts	28.4	24.5	4.2	29.4	24.8	5.4	27.5	26.8	7.8
	Service	12.6	16.4	23.2	12.9	17.5	22.7	11.0	13.5	21.3
	Sales, Office	21.6	15.4	8.0	19.6	14.2	8.6	15.1	12.4	8.1
	Natural Resources, Construction, Maintenance	8.5	8.4	21.7	7.5	8.4	21.2	5.7	6.3	17.1
	Production, Transportation	10.3	13.1	18.2	9.0	10.6	13.9	7.5	8.8	10.7
Work status (%)	Consistently employed	73.4	72.1	68.5	70.2	68.8	60.0	69.7	69.5	65.7
	Inconsistently employed	5.4	3.8	4.5	4.9	4.0	8.0	2.8	2.5	4.0
	Searching	3.0	4.2	3.9	5.3	5.9	7.9	5.1	4.3	5.2
	None	18.2	19.9	23.1	19.7	21.2	24.1	22.3	23.7	25.1
Owns living quarters (%)	No	28.8	41.1	68.0	30.6	42.4	63.1	36.3	44.5	62.9
	Yes	71.2	58.9	32.0	69.4	57.6	36.9	63.7	55.5	37.1
Uninsured (%)	No	84.8	74.9	28.2	81.1	70.5	27.9	82.9	76.3	38.3
	Yes	15.2	25.1	71.8	18.9	29.5	72.1	17.1	23.7	61.7
Has private health insurance (%)	No	22.7	33.3	78.0	27.6	38.7	79.9	28.3	36.6	74.7
	Yes	77.3	66.7	22.0	72.4	61.3	20.1	71.7	63.4	25.3
Average family income (% of FPL)		428.0	372.9	193.1	420.3	374.8	183.8	455.8	472.4	221.0
Average household income (% of FPL)		445.2	387.5	212.5	438.0	389.3	198.9	476.1	484.7	234.3

Data Source: SIPP 2004, 2008, 2014

Sample is limited to adults aged 18-60. Documentation status and characteristics are predicted using an equation. US born native population includes people who were born to US parents abroad and people who were adopted by US parents. Documented Immigrants include naturalized US Citizens.

Table 3. Multivariate Regression of Family and Household Income of Immigrants (% of FPL)

		Family Income/FPL (%)		Household Income/FPL (%)	
		Estimate	**SE**	**Estimate**	**SE**
Probability of being undocumented		-243.7***	(25.92)	-237.5***	(26.28)
Year of Survey	2004	0	(.)	0	(.)
	2008	11.67	(9.423)	13.71	(9.654)
	2014	119.4***	(35.04)	119.3***	(35.63)
Interaction	P(undocumented) x 2004	0	(.)	0	(.)
	P(undocumented) x 2008	-22.82	(15.42)	-28.95	(15.62)
	P(undocumented) x 2014	-155.6**	(51.33)	-161.6**	(51.78)
Years lived in the US		-0.00262	(0.00512)	0.000491	(0.00517)
Age		0.594	(1.271)	0.154	(1.290)
Sex	Male	0	(.)	0	(.)
	Female	-28.68*	(14.54)	-21.49	(14.80)
Region of Birth	Americas	0	(.)	0	(.)
	Asia and Pacific	84.06***	(15.25)	88.39***	(15.57)
	Europe, Africa, Other	120.7**	(37.66)	115.2**	(38.35)
Residence in the US	New England	0	(.)	0	(.)
	Middle Atlantic	19.20	(51.67)	14.70	(51.72)
	East North Central	-87.51***	(22.63)	-99.02***	(22.81)
	West North Central	-111.0***	(26.60)	-117.9***	(26.72)
	South Atlantic	-55.02*	(22.45)	-61.41**	(22.70)
	East South Central	-107.2***	(23.82)	-111.6***	(24.10)
	West South Central	-78.44***	(23.58)	-93.33***	(23.88)
	Mountain	-91.88***	(23.24)	-105.4***	(23.43)
	Pacific	-72.53**	(23.11)	-83.38***	(24.19)
Constant		397.7***	(48.45)	432.7***	(49.02)
Observations		22325		22325	
Adjusted R-squared		0.043		0.041	

* p<0.05, ** p<0.01, *** p<0.001. Data Source: SIPP 2004, 2008, 2014.

Sample is limited to adults aged 18-60. Documentation status and characteristics are predicted using an equation. One-unit increase is equivalent to being undocumented. Documented Immigrants include naturalized US Citizens.

Table 4. Logistical Regression of High Socioeconomic Status Indicators Among Immigrants (Odds Ratios)

		Had Consistent Employment in Past Month		Owns living quarters (vs. renting or living without payment)		Has Private Health Insurance		Has Job in Management, Business, Science, and Arts	
		Estimate	**SE**	**Estimate**	**SE**	**Estimate**	**SE**	**Estimate**	**SE**
Probability of being undocumented		0.672***	(0.0725)	0.105***	(0.0120)	0.00524***	(0.000773)	0.00527***	(0.00209)
Year of Survey	2004	1	(.)	1	(.)	1	(.)	1	(.)
	2008	0.922	(0.0492)	0.948	(0.0468)	0.867**	(0.0454)	0.988	(0.0549)
	2014	0.893	(0.0521)	0.838**	(0.0453)	0.939	(0.0538)	1.017	(0.0618)
Interaction	P(undocumented) x 2004	1	(.)	1	(.)	1	(.)	1	(.)
	P(undocumented) x 2008	0.602***	(0.0733)	1.691***	(0.220)	1.572**	(0.271)	3.371**	(1.466)
	P(undocumented) x 2014	0.954	(0.125)	1.917***	(0.264)	2.494***	(0.429)	7.799***	(3.254)
Years lived in the US		1.000	(0.0000340)	1.000***	(0.0000329)	1.000	(0.0000356)	1.000*	(0.0000401)
Age		1.018***	(0.00183)	1.032***	(0.00166)	0.983***	(0.00175)	0.993***	(0.00182)
Sex	Male	1	(.)	1	(.)	1	(.)	1	(.)
	Female	0.306***	(0.0106)	1.091**	(0.0348)	0.853***	(0.0303)	0.653***	(0.0263)
Region of Birth	Americas	1	(.)	1	(.)	1	(.)	1	(.)
	Asia and Pacific	0.891*	(0.0449)	0.874**	(0.0406)	0.760***	(0.0377)	1.428***	(0.0773)
	Europe, Africa, Other	0.957	(0.0541)	0.839***	(0.0437)	0.796***	(0.0427)	1.311***	(0.0766)
Residence in the US	New England	1	(.)	1	(.)	1	(.)	1	(.)
	Middle Atlantic	0.872	(0.0840)	0.888	(0.0738)	0.889	(0.0821)	0.842	(0.0822)
	East North Central	0.791*	(0.0778)	2.056***	(0.179)	1.242*	(0.122)	0.906	(0.0927)
	West North Central	0.917	(0.112)	1.730***	(0.194)	1.349*	(0.173)	0.798	(0.106)
	South Atlantic	0.891	(0.0830)	1.740***	(0.140)	0.956	(0.0854)	0.977	(0.0928)
	East South Central	1.123	(0.163)	1.552***	(0.199)	0.948	(0.136)	1.262	(0.194)
	West South Central	0.875	(0.0859)	2.621***	(0.232)	0.993	(0.0973)	0.996	(0.107)
	Mountain	0.820	(0.0853)	2.642***	(0.248)	1.004	(0.106)	0.700**	(0.0837)
	Pacific	0.723***	(0.0651)	1.204*	(0.0937)	0.934	(0.0810)	0.766**	(0.0710)
Constant		3.360***	(0.411)	0.363***	(0.0391)	9.018***	(1.080)	0.788	(0.102)
Observations		22325		22325		22325		22325	

* p<0.05, ** p<0.01, *** p<0.001. Data Source: SIPP 2004, 2008, 2014

Sample is limited to adults aged 18-60. Documentation status and characteristics are predicted using an equation. One-unit increase is equivalent to being undocumented. Documented Immigrants include naturalized US Citizens. Coefficient estimates and standard errors are in odds ratios.

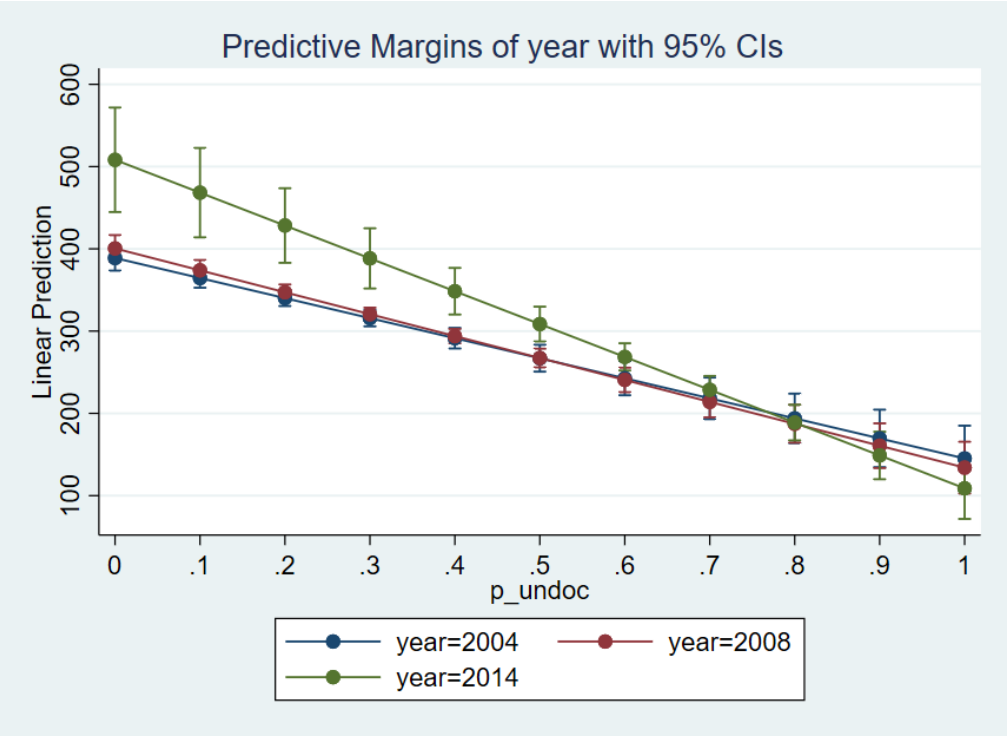
Table 5. Logistical Regression of Low Socioeconomic Status Indicators Among Immigrants (Odds Ratios)

		Unemployed		Has No Health Insurance		FPL < 138%		Has Job in Construction, Maintenance, Production, and Transportation	
		Estimate	**SE**	**Estimate**	**SE**	**Estimate**	**SE**	**Estimate**	**SE**
Probability of being undocumented		0.911	(0.210)	249.1***	(34.50)	5.105***	(0.553)	4.504***	(0.554)
Year of Survey	2004	1	(.)	1	(.)	1	(.)	1	(.)
	2008	1.210	(0.127)	1.169**	(0.0689)	1.049	(0.0590)	0.822**	(0.0540)
	2014	0.900	(0.112)	0.831**	(0.0553)	0.943	(0.0585)	0.637***	(0.0477)
Interaction	P(undocumented) x 2004	1	(.)	1	(.)	1	(.)	1	(.)
	P(undocumented) x 2008	2.271***	(0.548)	0.520***	(0.0794)	1.373**	(0.167)	0.818	(0.114)
	P(undocumented) x 2014	1.805*	(0.502)	0.361***	(0.0566)	1.235	(0.161)	0.722*	(0.110)
Years lived in the US		1.000	(0.0000761)	1.000	(0.0000385)	1.000	(0.0000352)	1.000	(0.0000394)
Age		1.001	(0.00356)	1.022***	(0.00196)	0.999	(0.00181)	1.026***	(0.00208)
Sex	Male	1	(.)	1	(.)	1	(.)	1	(.)
	Female	1.068	(0.0720)	0.833***	(0.0311)	1.458***	(0.0506)	0.140***	(0.00629)
Region of Birth	Americas	1	(.)	1	(.)	1	(.)	1	(.)
	Asia and Pacific	1.037	(0.105)	1.662***	(0.0953)	0.929	(0.0491)	0.393***	(0.0260)
	Europe, Africa, Other	0.911	(0.107)	1.616***	(0.0985)	0.890	(0.0537)	0.584***	(0.0394)
Residence in the US	New England	1	(.)	1	(.)	1	(.)	1	(.)
	Middle Atlantic	1.025	(0.190)	1.793***	(0.197)	1.128	(0.114)	0.899	(0.103)
	East North Central	1.018	(0.193)	1.481***	(0.169)	1.184	(0.121)	1.221	(0.142)
	West North Central	0.689	(0.179)	1.401*	(0.198)	1.345*	(0.169)	1.547**	(0.225)
	South Atlantic	1.023	(0.181)	2.800***	(0.294)	1.134	(0.109)	0.906	(0.0984)
	East South Central	0.681	(0.217)	2.708***	(0.408)	1.000	(0.148)	0.964	(0.164)
	West South Central	0.607*	(0.124)	2.460***	(0.274)	1.260*	(0.127)	1.195	(0.135)
	Mountain	0.990	(0.207)	2.035***	(0.242)	1.207	(0.127)	0.815	(0.100)
	Pacific	1.202	(0.205)	1.698***	(0.176)	1.220*	(0.114)	1.114	(0.118)
Constant		0.0425***	(0.0104)	0.0308***	(0.00432)	0.180***	(0.0225)	0.221***	(0.0311)
Observations		22325		22325		22325		22325	

* p<0.05, ** p<0.01, *** p<0.001. Data Source: SIPP 2004, 2008, 2014

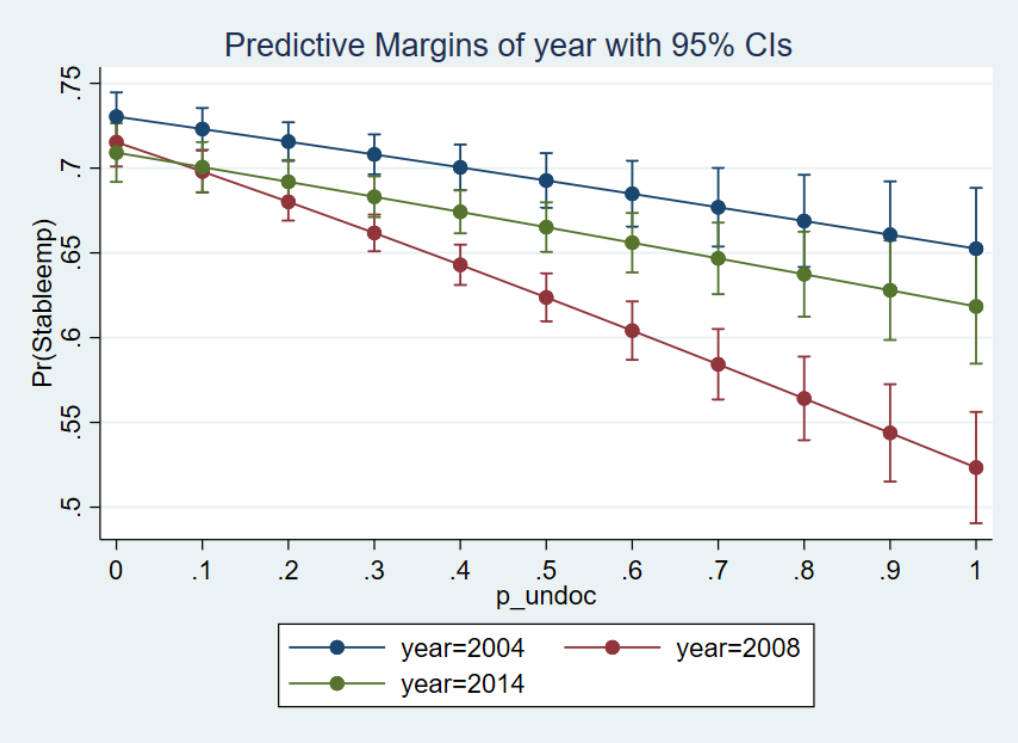
Sample is limited to adults aged 18-60. Documentation status and characteristics are predicted using an equation. One-unit increase is equivalent to being undocumented. Documented Immigrants include naturalized US Citizens. Coefficient estimates and standard errors are in odds ratios.

Figure 1. Predicted family income (% of FPL) by probability of being undocumented and survey year



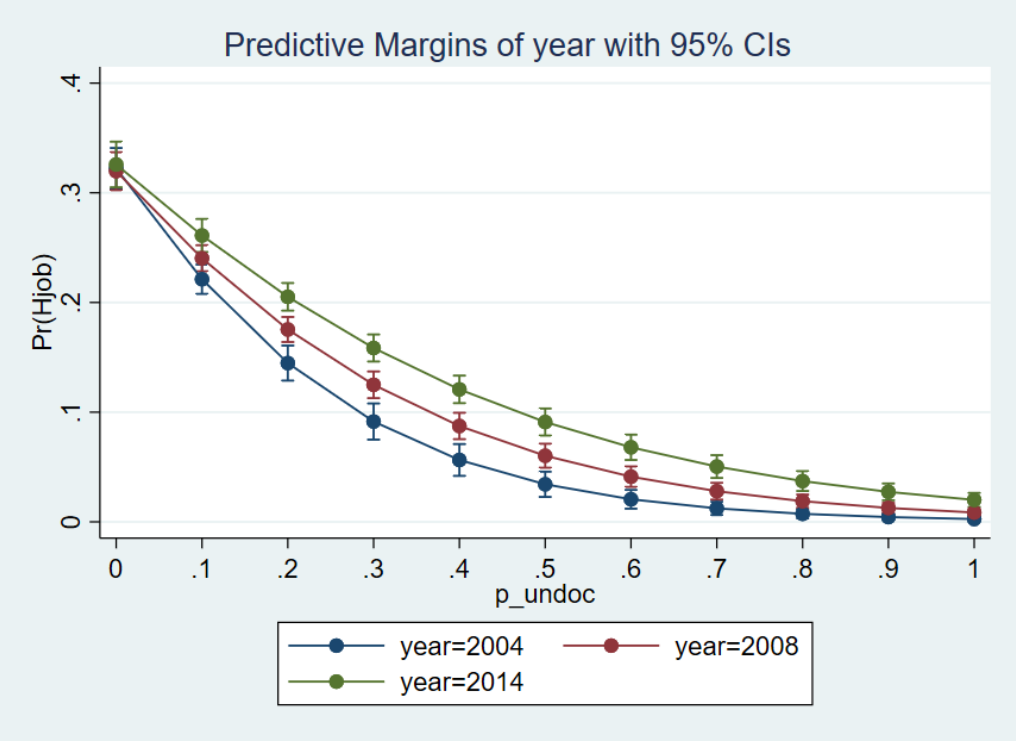
Probabilities near 0 indicate immigrants who are highly unlikely to be undocumented. Probabilities near 1 indicate immigrants who are highly likely to be undocumented.

Figure 2. Predicted proportion with consistent employment in the past month by probability of being undocumented and survey year



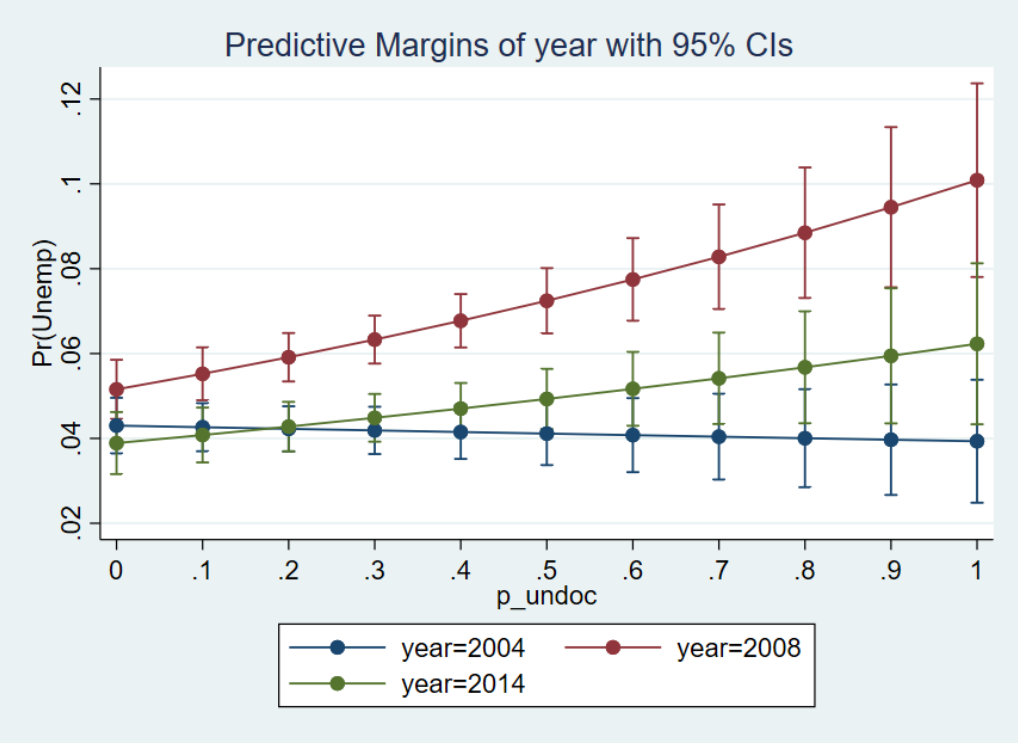
Probabilities near 0 indicate immigrants who are highly unlikely to be undocumented. Probabilities near 1 indicate immigrants who are highly likely to be undocumented.

Figure 3. Predicted proportion with an occupation in management, business, science, and arts by probability of being undocumented and survey year



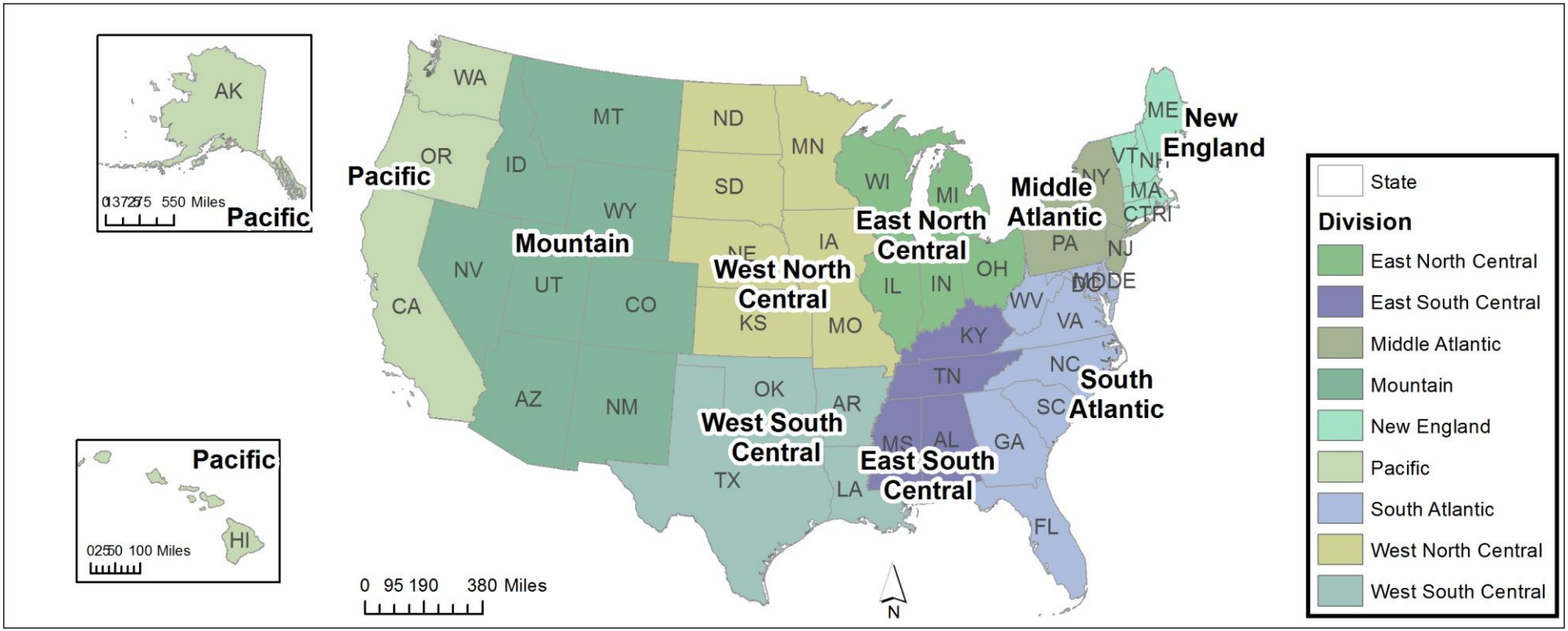
Probabilities near 0 indicate immigrants who are highly unlikely to be undocumented. Probabilities near 1 indicate immigrants who are highly likely to be undocumented.

Figure 4. Predicted proportion unemployed by probability of being undocumented and year



Probabilities near 0 indicate immigrants who are highly unlikely to be undocumented. Probabilities near 1 indicate immigrants who are highly likely to be undocumented.

Appendix. US Census Divisions



Source: US Census. Downloaded 9/14/2018 from https://www.census.gov/geo/reference/webatlas/divisions.html.