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Immigrant Diversity and Social Security: Recent Patterns and Future Prospects

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April 30, 2011

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The research reported herein was pursuant to a grant from the U.S. Social Security Administration (SSA) funded as part of the Retirement Research Consortium (RRC). The findings and conclusions expressed are solely those of the authors and do not represent the views of SSA, any agency of the federal government, the RRC, the Urban Institute, its board, or its funders.

We thank Richard Johnson and Juan Pedroza of the Urban Institute, Bill Davis of the Social Security Administration, plus participants in a seminar at the Social Security Administration's Division of Policy Evaluation in the Office of Research, Evaluation, and Statistics for helpful comments. Thuy Ho of the Social Security Administration facilitated access to the survey data matched to the administrative records. All errors remain our own.

ABSTRACT

Immigration is transforming the U.S. labor force with important consequences for Social Security's adequacy and finances. Using longitudinal data from the Survey of Income and Program Participation matched to administrative data on lifetime earnings and benefit receipt, we measure the extent to which nonnatives' lifetime earning patterns, payroll taxes paid, benefits received, and total incomes differ from those for the U.S.-born population. We consider other outcomes important to retirement security, like health status, marital status, and financial wealth. We also compare various immigrant groups with one another. Our findings stress heterogeneity in labor force and Social Security experiences among immigrants.

EXECUTIVE SUMMARY

Immigration is transforming the U.S. labor force. Immigrants account for about 12.5 percent of the population and half of recent U.S. labor force growth. Immigration also has important consequences for Social Security's finances. In 2008, when Social Security's Trustees adjusted the size and composition of assumed net immigration in their Annual Report, projections of the system's unfunded obligation fell markedly. Recent press accounts have speculated about how increased immigration could reduce financial pressures on the program.

Research is limited, however, on how immigrants' experiences with the Social Security program differ from those of U.S.-born workers, especially for younger cohorts. Experience with Social Security typically spans most of people's lifetimes. Participants often spend many decades making payroll tax contributions, followed by a decade or more receiving retirement benefits, which depend in complex ways on earnings and marital histories. Some participants receive benefits in childhood (for example due to a parent's death) or prior to a conventional retirement age due to onset of a severe disability. Understanding how Social Security treats different population groups, including natives, immigrants, and immigrant subgroups, is thus a complex exercise, demanding extensive data unavailable in most public sources.

We use a unique source, longitudinal data from the 1996, 2001, 2004, and 2008 panels of the Survey of Income and Program Participation (SIPP) matched to administrative data on earnings and program participation. These data include matched earnings from the Summary Earnings Record (SER) and Detailed Earnings Record (DER), benefit receipt from the Master Beneficiary Record (MBR) and Supplemental Security Record (SSR), and mortality and nativity from Numerical Identification System (Numident) records. Using a mix of SIPP panels allows us to make a wide range of comparisons.

We follow several strains in the literature to provide a detailed accounting of immigrant experiences as taxpayers and beneficiaries. We consider the importance of the economic development of a nonnative's country of origin and recency of immigration in shaping wage growth, and discuss factors like earnings volatility. We classify the foreign-born members of our sample by estimated legal status and consider its effects on outcomes. We consider how years outside the U.S. labor force affect lifetime Social Security experiences, using lifetime payroll tax contributions and replacement rates as metrics. Our ultimate goal is to consider immigrant-native differences in economic well-being more broadly, both in prime age and retirement, and better understand how changes to Social Security policy could shape these differences.

We find great diversity in the ways that immigrants' Social Security experiences compare to natives' experiences. Immigrants from countries with higher per capita gross domestic product (GDP) resemble natives closely on many dimensions—earnings, occupation, health, and wealth—with marriage and work years (and thus lifetime payroll taxes) main areas of difference. Outcomes for immigrants from countries with lower per capita GDP differ more notably from natives' outcomes; within this group, outcomes are very diverse depending on estimated legal status. While earnings for immigrants from lower-GDP countries grow at faster rates than natives' earnings earlier in their careers in the United States, the difference diminishes with time living in the United States. Differences between immigrants and natives by gender are also sometimes important. For example, some subgroups of immigrant women are less likely to work in the paid labor force than native women. Because of immigrants' great diversity, nonnatives' outcomes—including total incomes and Social Security replacement rates—appear to be more skewed than natives' outcomes.

We close with a few simulations designed to explore how recent proposals to improve Social Security adequacy and reduce immigrant-native differences in equity would be likely to play out for a changing population.

ACRONYMS

AIME	Average Indexed Monthly Earnings
AWI	Average Wage Index
DER	Detailed Earnings Record
DI	Disability Insurance
GDP	Gross Domestic Product
LDC	Less Economically Developed Country (defined based on per capita GDP)
MBR	Master Beneficiary Record
MDC	More Economically Developed Country (defined based on per capita GDP)
MINT	Modeling Income in the Near Term
Numident	Numerical Identification System
OASDI	Old-Age, Survivors, and Disability Insurance
OLS	Ordinary Least Squares
PIA	Primary Insurance Amount
SER	Summary Earnings Record
SSR	Supplemental Security Record
SIPP	Survey of Income and Program Participation
SSI	Supplemental Security Income

Introduction

Immigration is transforming the U.S. labor force. Today, immigrants account for about 12.5 percent of the population (Pew Hispanic Center 2010) and half of recent U.S. labor force growth (Council of Economic Advisers 2007). Immigration also has important consequences for Social Security's finances. In 2008, when Social Security's Trustees adjusted their assumptions about the composition of net immigration, projections of the system's unfunded obligation fell markedly. Several recent press accounts (for example, Porter 2005, Reich 2010, and Schumacher-Matos 2010) have speculated about how increased immigration could help to alleviate the program's financial pressures.

Research is limited, however, on how immigrants' experiences with the Social Security program differ from those of U.S.-born workers, especially for younger cohorts.[1] For individuals born between 1941 and 1951, Gustman and Steinmeier (2000) find that mean and median annual earnings are similar for immigrants and U.S.-born adults, but that immigrants have shorter covered-earning histories. Thus, for the 1941–1951 cohorts, Social Security's progressive nature favors foreign-born individuals with higher benefits than U.S.-born individuals with similar earnings but fewer zero-earnings years. To make the system more equitable between immigrants and U.S.-born workers, researchers have proposed various ways to adjust the benefits of immigrants for the fewer years they are likely to participate in the system. The general idea is to prorate the benefits of immigrants for the years in which they participate in the system relative to the 35 years in which the benefit formula is computed (Gustman and Steinmeier 2000; see also Brown and Weisbenner 2008 for related issues for uncovered workers).

[1] We use the terms "foreign-born," "immigrant," and" nonnative" interchangeably, recognizing that this is sometimes imprecise (because some non-natives may be in the United States temporarily with no intention of residing permanently). We also use the terms "Old-Age, Survivors, and Disability Insurance" (and its acronym, "OASDI") and "Social Security" interchangeably. When referring to separate components of Social Security, like the Disability Insurance (DI) program, we do this explicitly.

It is not clear, however, whether the experiences of younger cohorts of foreign-born workers are comparable to the 1941–1951 cohorts. Duleep and Dowhan (2008a), for example, show that the earnings of immigrants who entered the country in the 1960s were similar to those of the U.S.-born. But more recent immigrants received lower earnings than U.S.-born workers. The ratio of foreign- to native-born median earnings falls from 1.00 for those who came in the 1960s to 0.54 for those who came in the 1980s. To explain this divergence in earnings between immigrants and natives, researchers generally point to changes over time in characteristics of immigrants such as country of origin, education, and age (Duleep and Regets 1996; Duleep and Dowhan 2008a).

This project uses a unique matched data source to measure how immigrants differ from U.S.-born workers with respect to Social Security. Is the balance between payroll taxes paid and benefits received similar for the two groups of workers? Are differences between immigrants and the U.S.-born increasing for younger cohorts? How does this vary by place of birth and legal status? How do earnings growth and volatility differ between immigrants and natives? What are the distributive effects of various proposals to adjust the benefits of immigrants for the fewer years they are likely to participate in the system or to improve benefit adequacy for the lowest earners or caregivers?

Many factors—including earnings, marital history, disability history, and age at benefit claiming—shape all workers' experiences with Social Security. But immigrants' experiences depend on several additional factors, especially the age of entry to the United States, the number of years in covered employment, and the duration of residence in the United States, all of which are likely to differ across cohorts, place of birth, and legal status.

Organization of the report: The next sections highlight how Social Security treats immigrants and how their contributions to the system affect overall financing. We then examine themes in the literature on the immigrant life course more broadly and turn to a description of our data and methods. Our results follow. We begin with a range of cross-sectional outcomes, including demographic characteristics, employment status, earnings, occupation, health, and wealth. We then turn to longitudinal results, including our examination of earnings growth and volatility, total work years, lifetime payroll taxes, types and levels of Social Security benefits among current beneficiaries, timing of benefit claiming, and replacement rates. Our policy simulations follow the longitudinal results, and we close with summary comments and policy implications.

Our results suggest that immigrants from different parts of the world experience very different labor market and retirement outcomes, with workers from less developed countries earning less, working in very different jobs, and ultimately receiving lower Social Security benefits and retirement incomes. While time in the United States does tend to narrow the gap between immigrants from less developed countries and both their counterparts from more developed countries and natives, pronounced differences remain. Among immigrants from less developed countries, legal status differences are associated with a large fraction—but not all—of the disadvantage relative to natives.

Social Security and Immigration

Individual tax-benefit experiences: When thinking about how nativity affects an individual's Social Security outcomes, it is important to distinguish between differences in treatment of natives and nonnatives that result from Social Security law (for example, regulations about

benefit coordination that seek to reduce double taxation and protect workers who spend parts of their careers abroad) and those that result from immigrants' and natives' different life-course patterns.[2] Unless workers are from countries that have agreements with the United States and their work here is relatively brief (for example, under five years in the case of the U.S.-Canada agreement), Social Security does not change any benefit calculations on the basis of nativity or age of entry to the United States or the work force (see Nuschler and Siskin 2010). Only about 155,000 workers and dependents received benefits under a coordination (or "totalization") agreement in 2008 (Social Security Administration, Table 5.M1). With more than 4.5 million immigrants age 65 and older residing in the United States that year, it is clear that the vast majority of immigrant workers receive retirement or disability benefits under the conventional Social Security formula.

Nonetheless, many characteristics of the immigrant life course can lead to differences in the favorability of treatment by Social Security.[3] Workers and their employers make payroll tax contributions of 6.2 percent each on their earnings up through a threshold, known as the wage and benefit base or "taxable maximum," set at $106,800 in 2011.[4] About 8.8 percent of men and 3.0 percent of women with any earnings in Social Security–covered employment earned more than the taxable maximum in 2008, the last year for which national data are available. Because it is capped and levied at a flat rate, the payroll tax is thus regressive when considered in isolation.

[2] Analogously, Social Security law now mandates that the program pay benefits on a fully gender-neutral basis, but outcomes for women and men differ nonetheless because of different average life experiences, including differences in employment and earnings, longevity, age relative to spouse's age, and caregiving.

[3] While years of work in the United States and earnings trajectories are the most notable determinant of how immigrant life courses may interact with Social Security, factors like disability prevalence, mortality, and marriage also affect program treatment. Marriage histories are important because Social Security provides protection to workers' spouses, survivors, and dependent children at no additional cost. Longevity, coupled with claiming timing, determines the expected duration of benefit receipt.

[4] Self-employed workers pay both halves of the payroll tax. A 2 percent payroll tax reduction ("holiday") is in effect for 2011 only.

In exchange for these contributions, the program pays benefits based on a worker's highest 35 years of earnings, and replaces earnings using a progressive benefit formula (see figure 1).[5] As the figure indicates, for beneficiaries first becoming eligible this year (2011), Social Security replaces average earnings through the first bend point (equal to just under $749 of lifetime monthly earnings, or $8,988 on an annual basis) at a 90 percent rate, while replacing 32 percent of earnings between the first and second bend points (equal to $4,517 monthly or $54,204 when annualized). The program replaces additional earnings above the second bend point at just 15 percent. As a consequence of averaging over the 35 highest earnings years and this progressivity, Social Security replaces a higher fraction of earnings for those with truncated work histories (including immigrants who came to the United States in adulthood), a point Gustman and Steinmeier (2000) emphasize in their comprehensive analysis of differences between natives' and immigrants' Social Security experiences.

At the same time that some foreign-born workers experience extremely favorable treatment by Social Security because of high earnings over a short career, others may make payroll tax contributions for many years and never become entitled to benefits.[6] Workers who are in the United States without legal authorization likely disproportionately fall into this group. Social Security's Chief Actuary Stephen Goss (cited in Schumacher-Matos 2010) estimates a $12 billion net transfer to Social Security from other-than-legal immigrants in 2007, with a

[5] The highest 35 earnings years are indexed to create the average indexed monthly earning (AIME), which is then transformed using a piecewise linear formula to derive the primary insurance amount (PIA), the benefit to which a worker is entitled at the full retirement age (currently set at age 66, but scheduled to increase to age 67 for those born in 1960 and later). For disabled or deceased workers, fewer work years may be used in the AIME calculation depending on the age of disability onset or death. See Social Security Administration (2010a) for details.

[6] Other immigrants may be misclassified for part or all of their careers as working as independent contractors (rather than as employees), which means that they will be exempt from OASDI payroll tax withholding—and potentially liable for large personal income tax bills at the end of the year. Those who never file tax returns may not accrue Social Security benefits (or tax benefits like the earned income tax credit), which could undermine their long-term retirement security. For example, Robles (2009) describes prevalent misclassification of farm workers.

cumulative contribution from other-than-legal immigrants that could top $120 to $240 billion (or 5.4 to 10.7 percent of the Social Security Trust Fund balance) as of that year.

These other-than-legal immigrants occupy different employment statuses. Social Security actuaries estimate that in 2000 about three-fifths were either working in the underground economy or working in a Social Security–covered job but with their contributions directed to the suspense file, a third were contributing to Social Security but with only temporary work U.S. authorization, and about 8 percent were noncovered students (Wade 2011).[7]

Burtless and Singer (2011) consider the Social Security employment coverage of the subset of immigrants from Mexico. Using data from the Mexican Migration Project and Current Population Survey, they estimate that in recent years about half of Mexican-born migrants in the United States who were working and heads of household were in jobs that Social Security does not cover. Given that these workers' wages were below average, these wages accounted for less than half of the wages that Mexican immigrants earned.

For individuals with low incomes and low assets who do not qualify for retirement and disability benefits—or who qualify only for low benefits—the Supplemental Security Income program (SSI), also administered by the Social Security Administration, provides additional support.[8] SSI regulations do differentiate between natives and nonnatives (for discussion, see for example Parrott et al. 1998). When SSI was originally enacted (in 1972), citizenship or legal admittance to the United States was the key requirement. Starting in 1990, Congress imposed

[7] Over the longer-term, the Social Security Trustees assume that far higher fractions of this other-than-legal population will be employed in the underground economy and have their earnings directed to the suspense file, and far fewer will be covered by OASDI.

[8] In 2011, the base monthly SSI payment was $674 for an individual and $1,011 for a couple. SSI's asset limits—$2,000 for an individual and $3,000 for a couple—have not changed since 1989, and the program's income exclusion ($65 per month for earnings and $20 per month for other income) are the same as they were when the program first started paying benefits in 1974. When considering assets, SSA excludes a home and personal effects, a vehicle, and burial funds. Some states supplement the federal SSI payment for certain beneficiaries.

and refined stricter requirements for nonnative noncitizens.[9] Despite these restrictions, immigrants receive SSI at higher rates than natives because of lower incomes and thus higher eligibility levels (see Van Hook 2000).

System financing: Immigration plays a crucial role in the growth of the U.S. labor force, and the relative value of immigrants' earnings has important consequences for Social Security's finances. Favreault (2009) describes the relative value of different forms of earnings from the Social Security Trust Fund perspective. Earnings that do not accrue entitlement to any benefit—or to any additional benefit—are most advantageous to the Trust Fund. In contrast, earnings that accrue entitlement to a high replacement rate (for example, to very low lifetime earners whose earnings will be replaced at 90 percent, especially if they have a dependent spouse or child) are least advantageous to the program. Foreign-born individuals disproportionately inhabit both ends of this spectrum. Some pay low payroll taxes and receive high benefits, leading to high replacement rates. Others pay payroll taxes for many years without receiving any benefits.

Research suggests that, on net, immigration has positive effects on Social Security financing. Sensitivity analyses in the Social Security Trustees Annual Report suggest that an ultimate annual increase in net immigration of 305,000 people (relative to the assumed level of 1,065,000 net immigrants) would improve 75-year actuarial balance by 0.2 percent of payroll (about 10 percent of the projected long-term imbalance), while an annual decrease of 285,000 would worsen it by the same amount (Board of Trustees 2010, Table VI.D3). These differences result in part from delayed timing: immigrants are younger on average than the population at large, so they pay taxes immediately but only considerably later become beneficiaries, implying

[9] Groups remaining covered by SSI under the new requirements include the following: those who have earned at least 40 Social Security–covered quarters, those serving on active duty in the U.S. military, certain refugees (for up to seven years of eligibility), and victims of battery or cruelty. Congress eventually grandfathered those who were receiving SSI benefits at the time the law changed so that they could continue to receive benefits even if they did not meet these new criteria.

that the financial gains to the system are short-run. Van de Water (2008) concludes that immigration's effects on Social Security finances are ultimately positive, but also modest. He argues that, as a consequence, neither immigration nor Social Security policy decisions should be made on the basis of concerns about how immigration affects Social Security financing. Gustman and Steinmeier (2000) point out that immigrants in the 1931 to 1941 birth cohorts contributed more in payroll taxes than they collected in benefits, so the system was better off even if many such workers were treated generously relative to natives.

Background: The Immigrant Life Course

This section examines themes in the immigrant life-course literature that pertain to analyses of immigrants' experiences with the Social Security system. These themes and related factors capture the diversity and dynamic nature of immigrants' lifetime work experiences in the United States. The section also acknowledges closely related issues, such as the effects of immigrants on the economy, the labor force, and poverty; immigrants' outcomes during the Great Recession; demographic and economic differences between immigrants and natives beyond work and earnings; and immigrant well-being during retirement.

A first theme is the tremendous diversity among U.S. immigrants. Given that the foreign-born make up approximately one in every eight Americans, most generalizations about their characteristics are bound to be woefully inadequate. Many immigrants are very well educated and/or come to the United States to pursue higher education, and many of the country's most successful entrepreneurs were born outside the United States. The prevalence of foreign-born workers in certain science and engineering occupations underscores immigrants' contributions to the high-skilled labor force (Regets 2001; Sana 2010). Immigrants are also overrepresented at the

low end of the skill spectrum. Borjas (1999, 2006), for example, points to the growing concentration of foreign-born workers in the bottom quintile of the earnings distribution in recent decades, and describes the immigrant population as having a bifurcated skills distribution. Capps, Fortuny, and Fix (2005) note that concentration of immigrants in the bottom of the earnings distribution is due in part to rapidly declining shares of native workers with less than a high school education. Capps, Fix, and Lin (2010) suggest that conventional wisdom about bifurcation and an hourglass-shaped distribution, where immigrants are extremely overrepresented at the bottom and top of the distribution but underrepresented in the middle, overstates the case, given robust representation of immigrants in the middle of the occupational skills distribution.

Education, skills, and earnings are only some of the components of immigrants' diverse circumstances. Immigrants differ along many other characteristics, such as age and geography. Immigrants are younger than the U.S. population at large, but they still make up a significant fraction of the retired population. While immigrants have historically settled in gateway cities and regions, in recent decades they have become far more geographically dispersed throughout the United States (Fortuny et al. 2010; Singer 2009).

A second theme in the literature is change over time, with different immigrant cohorts faring more or less well relative to the native born. Literature on the "new immigration" stresses less education (and less human capital more broadly) among more recent immigrant cohorts, leading to less favorable outcomes (for example, Borjas 1999, 2003; see Card 2005 or Peri and Sparbet 2010 for counterarguments). But Duleep and Regets (1997a, b) note that lower starting points for earnings for more recent immigrants are to some degree offset by their more rapid earnings growth (controlling for background demographics and human capital). Hall and Farkas

(2008) report similar patterns of earnings growth for the foreign-born, while stressing that a subset of Latino immigrants have persistently low wages. Additional work by Duleep and others (e.g., Duleep and Dowhan 2008a) shows how earnings trajectories typically vary based on the economic development of one's country of origin. Those who come to the United States from less developed countries typically start with lower earnings, but (again, all else equal) experience more rapid earnings growth relative to natives. Acculturation (including English acquisition for some) and selective emigration are hypothesized to contribute to these patterns.

A third theme the literature emphasizes is the dynamic nature of the immigration process. Many immigrants enter the United States, stay for just a short time, and then return to their native country or perhaps resettle in a third country (for example, Durand and Massey 2004; Massey and Capoferro 2004; Passel and Cohn 2009a).[10] Some return to the United States later, perhaps for several different spells in the country, while others do not. This mobility has important implications for Social Security eligibility, tax contributions, and benefit levels.

These residential dynamics are closely tied to legal status, which itself is dynamic. Passel and Cohn (2010) estimate that in 2009 approximately 11.1 million persons were residing in the United States without legal authorization, representing about 28 percent of the foreign-born population present in the United States at that time.[11] This figure reflected a marked decline from previous estimates, likely due to changes in incentives resulting from the global recession that led to above-average departures and below-average entries. Residents without work authorization may have extremely circumscribed rights of all sorts—ranging from entry and exit

[10] Regardless of decisions about settlement, close ties to one's birth country are common among immigrants (Bittle and Rochkind 2009).

[11] The Department of Homeland Security, using similar methods but a different data source, estimated 10.8 million unauthorized immigrants in the United States in January 2009 (Hoefer, Rytina, and Baker 2010). Both the Homeland Security and Passel and Cohn estimates rest on assumptions, for example on undercoverage, that are difficult to test empirically (for discussion, see Bialik 2010a, 2010b and Van Hook and Bean 1998).

restrictions to limited political participation and due process (Massey and Bartley 2005)—and may be relatively vulnerable to exploitation by unscrupulous employers. But legal status is not fixed. Many immigrants change status over the course of a year—and many more change status over the course of a lifetime—with some naturalizing or otherwise adjusting their status (for example becoming a permanent resident or marrying a U.S. native). Again, this has implications for earnings and ultimately Social Security.[12]

Both immigrant status and legal status often differ for individuals within a single family. While some immigrant families arrive as a unit to the United States, others form after arrival. Many immigrants marry non-immigrants. Some native-born parents adopt children from abroad. The children of foreign-born parents who are born in the United States are automatically citizens, even if their parents are not. Similarly, children of U.S. natives who are born abroad are automatically citizens. Research on "mixed status" households suggests immigrant families commonly include some individuals who are legally authorized to reside or work in the United States and others who are not (e.g., Fix and Zimmerman 1999; Fortuny et al. 2010). These dynamics and complications pose tremendous difficulties for measuring the lifetime work experiences of immigrants and drawing inferences about the U.S. immigrant population as a whole from survey data.[13]

Another strand of the immigration literature focuses on immigration's effects on the economy and labor force more broadly. Disputes and controversies persist (Holzer 2011 and Zimmerman 2008 provide overviews), and they are far too extensive to review comprehensively

[12] Several pieces of legislation introduced in the 111th Congress—for example, H.R. 132, H.R. 160, S.115, H.R. 2028 and H.R. 2287—would prohibit any earnings accrued while other-than-legally residing in the United States from counting toward Social Security benefits.

[13] Our point-in-time analyses speculate about earnings experiences for other-than-legal immigrants given how important their earnings are to Social Security financing and the overall income distribution, though because of data limitations, most of our lifetime analyses focus on those residing in the United States legally.

here. Addressing such questions requires tackling several thorny methodological challenges given that immigrants do not sort into different labor markets randomly but respond to economic opportunities and rely on social networks when deciding where to settle or relocate. While consensus is elusive, dominant findings are that highly-skilled immigrants greatly benefit the U.S. economy and that immigration affects higher-wage native workers' earnings and economic outcomes in a modest way, likely positively. Effects on lower-wage native-born workers' earnings are more controversial, but more likely to be negative.

Burtless (2009) attempts to estimate the effect of post-1979 immigrants' employment on the Social Security average wage, which determines Social Security benefits. Using data from the Census Bureau's Annual Social and Economic Supplement (formerly known as the March Current Population Survey), Burtless isolates the effects not just of first-generation immigrants, but also of their children by constructing hypothetical populations without both groups. He concludes that immigrants' effects on economic well-being are typically larger at younger ages, and that the ultimate effects on Social Security benefits and incomes at older ages are relatively modest. Burtless estimates that immigration after 1979 depressed size-adjusted incomes on the order of 3.1 percent in 2007.

A subset of the literature on the foreign born and the economy more broadly considers immigration's effect on poverty. Raphael and Smolenky (2009) undertake a comprehensive study of the extent to which immigration has contributed to overall poverty prevalence in the United States. Using Census Integrated Public Use Microdata Series and American Community Survey data and decomposition techniques, they determine that while immigration surely has slowed poverty reduction, its effect is relatively modest, on the order of about a half a percentage point. While many immigrants start their time in the United States poor, this is often a temporary

condition, consistent with findings from Duleep and Regets (1997a, b) and others about patterns of earnings growth for the foreign born. Conditions do vary across the life course, however. For example, about half of immigrant children live in low-income families (defined as below 200 percent of the poverty level), and more than a fifth are poor (Mather 2009).

The depth and severity of the 2007–2009 Great Recession has raised interest in the sensitivity of immigrants' outcomes to the business cycle. Orrenius and Zavodny (2009b) find that immigrants' economic well-being is more closely tied to the business cycle than natives', with their poverty rates especially sensitive. Kochhar (2010) suggests that later in the recovery from the recent recession (in 2009 and 2010), however, foreign-born workers have gained jobs at a faster rate than native workers. Occupational concentration and a different gender composition among immigrants no doubt contribute to these patterns, as might lower (and even negative) real wage growth.

Native-nonnative differences in demographic and economic processes other than employment and earnings have important implications for Social Security.[14] Nonnative fertility is higher than native fertility, but compositional differences largely explain these differences (Sevak and Schmidt 2008). Mortality for nonnatives appears to be lower than native mortality (Sevak and Schmidt 2008), but measurement is quite challenging, given potential confounding between emigration and mortality and differences in reporting of nativity and ethnicity in death certificates compared to population data (Kestenbaum 1986).[15] Health status and disability differentials by nativity are also ambiguous. Heron, Schoeni, and Morales (2002) examine those

[14] As a result, the Social Security Advisory Board's Technical Panel on Assumptions and Methods (2007) strongly recommends research on native-immigrant differentials in both economic and demographic processes.

[15] In 2010, the NCHS released life tables by Hispanic origin for the first time using data for the year 2006 (Arias 2010). These tables suggest a significant Hispanic mortality advantage at birth, relative to both non-Hispanic whites and non-Hispanic blacks. While many Hispanics are of course U.S.-born, the group is disproportionately foreign-born, and so these data are suggestive of native-non-native mortality differentials.

age 55 and over using data from the National Health Interview Survey (NHIS). They find a mixed picture, with nonnatives faring better than natives on some indicators but worse on others, and substantial variation in outcomes for immigrants from different regions.

Literature on immigrant well-being in retirement is relatively limited. Sevak and Schmidt (2007) use data from the Health and Retirement Study (HRS) to catalogue immigrants' retirement resources at age 65 and older relative to those of the native born from 1998 to 2004. They find immigrants are less well off than natives when taking into account most major income sources (Social Security and pensions), and that consequently immigrants are less likely to report themselves retired. Gustman and Steinmeier (2000) also use HRS data, but focus on younger ages (just prior to retirement). They find that immigrants' average Social Security and other forms of wealth are comparable to natives' (calling into question the effects of progressive redistribution for those with high earnings over relatively short careers), but these outcomes are more skewed among immigrants than among natives (with immigrants more likely to participate in certain transfer programs, including SSI and Food Stamps). They also highlight differences among immigrants based on time of arrival in the United States. Burr and colleagues (2009) use American Community Survey data to consider older immigrants' earnings and welfare program participation, and find that immigrants' earnings are lower than natives and their participation in programs like SSI and Food Stamps (now the Supplemental Nutrition Assistance Program) is higher.

Other authors rely on partially projected data to consider future retirement outcomes. Bridges and Choudhury (2009) use data from Modeling Income in the Near Term (MINT), based on the 1990 to 1993 SIPP panels, to examine individuals who turned 61 between 1993 and 2007. They find that immigrants have lower Social Security wealth and benefit payments than natives,

but receive benefits at higher replacement rates.[16] Replacement rates, not surprisingly, vary based on immigrants' age of entry to the United States. Cohen and Iams (2007) similarly use MINT data, but they compare two separate cohorts: those born from 1931 to 1940 (people for whom most of their career has been observed) and those born from 1956 to 1964 (for whom more earnings must be projected). They compute several measures of returns to Social Security payroll tax contributions, including net lifetime benefits and the internal rate of return, and also consider how incomes relate to poverty thresholds. They find important differences in Social Security treatment across birth and immigration cohorts. Contrary to Gustman and Steinmeier's estimates, they do not find significantly favorable treatment for immigrant cohorts nearing retirement (relative to natives), perhaps because of the way that they account for cases not matched to administrative data. In later immigration cohorts, they do find more of a gap opening up, but the more favorable treatment of immigrants by Social Security also coincides with elevated poverty risk.

Data, Measures, and Methods Used

For our analyses of immigrant and native labor force and Social Security experiences, we use longitudinal data from the 1996, 2001, 2004, and 2008 panels of the Survey of Income and Program Participation (SIPP) matched to administrative data on earnings and program participation. SIPP is a nationally representative survey of the non-institutional population, with oversamples of individuals in lower-income households likely to participate in transfer programs

[16] A replacement rate captures the ratio of income in retirement to earnings (or income more broadly) while working. Many alterative definitions are possible. (For a more detailed discussion of definitions of replacement rates, see Grad 1990 or Biggs and Springstead 2008.)

(Westat 2001). The Census Bureau follows individuals in SIPP and re-interviews them every four months for a period of about three to four years, depending on the panel.[17]

The matched data include earnings from the Summary Earnings Record (SER) and Detailed Earnings Record (DER), benefit receipt from the Master Beneficiary Record (MBR) and Supplemental Security Record (SSR), and mortality and nativity from Numerical Identification System (Numident) records. These administrative data include complete information through 2008. It is important to use both the SER and DER in these analyses, as the SER has information on Social Security–covered earnings from as far back as 1951, while the DER has total taxable earnings for a shorter period (starting in the late 1970s), but including uncovered earnings and earnings above the taxable maximum.[18]

Pooling multiple SIPP panels increases our sample size so that we have an adequate number of immigrants—over 36,000 foreign-born respondents—to compare different immigrant subgroups. This is important because the high levels of immigration—and changing composition of immigrants—in the past decade might imply different Social Security experiences for younger immigration cohorts. For the analyses in which we try to provide an overall understanding of immigrant-native differences, we use pooled data from all or some of the SIPP panels, while in other analyses, we compare experiences across panels to understand changes over time or use the latest SIPP panel or two to depict the most recent situation.

We restrict our sample to individuals age 18 and older, with various analyses focusing on different age groups. We define nativity based on whether one resides in the Social Security area.

[17] The 1996 panel followed individuals for up to four years, while the 2001 and 2004 panels followed respondents for up to three years. Only five waves (equal to a year and a half) of 2008 SIPP data have been released to date.
[18] Not all U.S. workers are covered by Social Security. Many state and local workers who are covered by a state pension do not pay payroll taxes to Social Security. These uncovered workers are concentrated in several states (for example, Massachusetts and Ohio) (see Special Committee on Aging 2010, Table 2). Also excluded from OASDI coverage are federal workers hired before 1984, railroad workers, certain students, poll workers, and domestic and farm workers with very low earnings. Fractions of workers with earnings above the taxable maximum have shifted over time. For example, in 1965, nearly half (49 percent) of men earned more than the taxable maximum.

So those born outside the United States but in a U.S. territory that Social Security covers (for example, Puerto Rico, American Samoa, Guam, the Northern Mariana Islands, Palau, or the U.S. Virgin Islands) or who are born abroad to U.S. citizen parents are considered native-born in our sample. Our foreign-born sample consists of all others.

Identifying immigrants—and countries of origin for the foreign-born—is surprisingly challenging. Prior to the 2004 SIPP panel, the Census Bureau did not ask respondents about nativity until SIPP's second topical module, meaning that sample members who attrited between waves one and two or refused to answer would not have nativity information. Fortunately, the Numident also includes nativity information, though these reports are sometimes incomplete or inconsistent with SIPP topical module information. To reduce the number of cases with missing information on nativity and region of origin, we use data from all possible sources and a hierarchical approach, under which we assume that the Numident information is the more accurate source for nativity information when it is available and unambiguous.[19] As part of this process, we hand code country of origin in many cases to try to reconcile inconsistencies between SIPP and Numident, as we recognize significant limitations in both sources. The 2008 public release of SIPP uses only broad country of origin categories.[20] For that panel, the Numident data on country of origin are especially important despite their limitations.

An important challenge in these analyses is that some SIPP respondents are not matched to an earnings or Numident record. In fact, immigrants match to the administrative files at much lower rates than others (about 69 percent, compared to 84 percent for natives), with certain

[19] For example, if the Numident says "Europe" but the SIPP topical module reports a country within Europe, we would use the latter source. A substantial number of Numident cases report a city or country of birth as "UN" or "unknown." In such instances, we examine the city and try to impute the corresponding country where possible and reasonably unambiguous and/or use SIPP information if it is available.

[20] These were as follows: Northern America, Northern Europe and Western Europe, Southern Europe and Eastern Europe, Eastern Asia, South Central Asia, South East Asia/West Asia, Australia/New Zealand, Africa, Caribbean, Central America, and South America.

immigrant groups (for example, new arrivals and those from Mexico and Central America) significantly less likely to match. Appendix table 1 provides age-sex match rates for SIPP workers by nativity and shows that younger immigrant men have the lowest match rates of all workers. For example, immigrant men age 20 to 24 have a match rate of just 45.5 percent. Appendix table 2 presents estimated coefficients from a logistic regression model of the presence of a match to the SER for all individuals (not just workers) age 18 and older in SIPP. These coefficients reveal that groups in addition to immigrants that match at relatively low rates include the unmarried and individuals who have never worked (as indicated by self-reports in SIPP's first topical module[21]). Match rates to the administrative data also differ markedly by SIPP panel, with match rates to the 2001 panel particularly low. Czajka, Mabli, and Cody (2007) describe the effects of differential match rates and attrition on SIPP, and provide extensive validation analyses of SIPP outcomes compared with other sources (especially the Current Population Survey).

Despite these challenges, our sample is broadly representative. Appendix table 3 presents the sample's basic demographic characteristics by SIPP panel. About 13.3 percent of the sample is estimated to be foreign born and 86.7 percent native born. Among the native born, just under 1 percent was born in a U.S. territory or abroad to U.S. parents (rather than in one of the 50 states or the District of Columbia). Across the four SIPP panels, we see the sorts of changes in education and family structure that we would anticipate (e.g., over time, the sample gets older, better educated, less married, and more racially and ethnically diverse, and resides in smaller households).

[21] The topical module question asks the year that a respondent last worked on a paid job, with never worked as a possible response.

Appendix table 4 describes the sample's employment characteristics, again by SIPP panel. When constructing cross-sectional measures like employment status and earnings, we combine data from self-reports with the administrative records.[22] This allows us to estimate these characteristics for the entire sample—including the nonmatched cases—without any imputations. This approach allows us to represent other-than-legal immigrants' characteristics and experiences, as we know that they are underrepresented in the matched data. We derive occupation, usual hours worked, and tenure on the current job solely from self-reported measures.[23] The employment and hours dips in the 2008 SIPP data that appendix table 4 shows coincide with the recession (which National Bureau of Economic Research analysts date as starting in December 2007 and ending in June 2009) and also reflect population aging, as the first Baby Boomers reached age 62, the first age at which workers can claim retirement benefits. There is some modest evidence of occupational change across SIPP panels, with professional positions more prevalent and production and operator positions less prevalent.[24]

Appendix table 5 describes the lifetime earnings and Social Security experiences of the sample by SIPP panel. We report the lifetime employment and earnings measures, like years of covered work and accumulated OASDI payroll taxes, only for those individuals matched to an earnings record (and thus largely exclude other-than-legal immigrants from these analyses). When accumulating payroll taxes, we use a discount rate of 2 percent. For the program participation measures, we again combine administrative data on benefit receipt with SIPP self-reports (when administrative data are unavailable) to enable us to use virtually the entire sample

[22] As when assigning nativity, we assume that the administrative reports are more reliable where they are available.
[23] SIPP asks about hours and tenure on multiple jobs, and distinguishes between wage and salary jobs and self-employment. We use the first (nonzero) job that the respondent mentions for tenure on the job and total (summed) hours on all jobs when assigning these characteristics.
[24] We are reluctant to draw firm conclusions because these differences to some degree may reflect changes in coding of occupation put in place in the 2004 and 2008 SIPP panels, plus sample aging.

for the program participation variables. Across panels, fractions with high numbers of years on the job increase (in part reflecting left-censoring because the earnings records start in 1951, though we are able to use partial information for years from 1937 to 1950).[25] Also, DI prevalence increases in the later SIPP panels.

Appendix table 6 describes the health and wealth characteristics of the sample, again by SIPP panel. SIPP measures health status using a five-category scale ranging from excellent to poor. We present the wealth measures—including total wealth, net worth (total assets less debt), and home equity—as a fraction of the average wage index (AWI), set at $40,711.61 in 2009, to make them more easily comparable across panels. We obtain both health and wealth data from SIPP topical modules, which are fielded several months after the initial survey, and this accounts for the relatively high number of cases with missing information.

Appendix table 7 presents additional characteristics of our foreign-born sample by SIPP panel. Our sample includes immigrants from a range of ages and years of arrival to the United States. These dates and ages are measured with considerable error, given that SIPP codes year of arrival to the United States categorically.[26] It is unclear which spell individuals with multiple spells in the United States refer to (e.g., some may report the current spell and others the first spell) when reporting their year of arrival.[27] More immigrants in the SIPP come from Mexico and Latin America than from any other region.[28] They represent about two-fifths of our sample.

[25] Another important nuance is that the taxable maximum was relatively low for certain parts of the period from 1951 to 2008—before the taxable maximum was tied by law to wage growth. For example, in 1965, 49 percent of men had earnings above the taxable maximum, compared to around 10 percent for the past 25 years.
[26] The 1996 panel uses 8 categories, most of about five years in length, starting with prior to 1960. The 2001 panel uses 21 categories, most of two to five years in length, with single years at recent years, starting with prior to 1952. The 2004 panel uses 20 categories, many five-year intervals, starting with less than 1955. The 2008 panel uses 2008 categories of one to seven years, starting with less than 1961.
[27] The question wording is "when did … move to U.S.," and as such does not ask when an individual "came to stay." Previous research finds this to be a relevant distinction (Duleep and Dowhan 2002).
[28] We aggregated Mexico with Latin America because of difficulty distinguishing between the two, especially in the 2008 SIPP when country of origin was aggregated in the public-use files.

Asia (excluding Japan) is the next most commonly reported region of origin, accounting for just over a quarter of the SIPP foreign-born. West Europeans plus Australians, Japanese, and New Zealanders account for more than one in nine SIPP immigrants. (We combined these geographically dispersed regions in some analyses because of their relatively similar levels of economic development.) The remaining regions (Eastern Europe, Africa, Canada, and the Caribbean) each make up less than 10 percent of the immigrant population.

We also reclassify place of origin into a single binary classification for more- and less-economically developed countries, using gross domestic product (GDP) per capita of the reported country of origin as a rough indicator.[29] The line between more and less economically developed is of course arbitrary (and thus limited), and the measure is not as accurate we would like because SIPP aggregates country of origin, especially in 2008, and national boundaries change (for example, transitions in Eastern Europe like the break-up of the former Yugoslavia into several countries, some of which are not included in SIPP codes and which differ in their relationship to the threshold).[30] It also may not reflect the country's relative economic level at the time the immigrant came to the United States (i.e., it typically better reflects relative economic development for those who have arrived more recently). However, most of the countries from which large numbers of immigrants have come to the United States have not changed positions relative to this line. This distinction is nonetheless useful and commonly employed in the

[29] We use a cutoff of 15,000 in international dollars GDP per capita, based on based on ranking of the World Bank (2010). This dividing line falls between Russia and Mexico, with Russia considered more developed and Mexico less developed. This concept is similar to "Global North" and "Global South" employed in other literature. For convenience, we sometimes drop the modifier economically developed for convenience.

[30] For example, we are unable to reliably and consistently distinguish Croatia, which lies above the GDP per capita line, from Montenegro, which falls below it. So we classify all the countries in Eastern Europe as above the line even though certain countries (like Albania and Romania) did not fall there in recent years. Our GDP measures thus roughly maps to region, with certain Asian and Caribbean countries classified as more developed (for example, Japan, Singapore, and Bermuda all fall above the line).

literature. Using this scheme, we classify over 70 percent of our foreign-born sample as having come from a less economically developed country.

We estimate that about a quarter of those nonnatives in the sample are other-than-legal residents of the United States at the time that we first observe them.[31] (The Social Security Trustees Report term "other than legal" encompasses a broad range of statuses for those who are not legal permanent residents, a group that includes individuals who may have temporary residence and employment authorization.) This compares to 28 percent in Passel and Cohn's (2010) most recent estimate. Another quarter are estimated to be present in the country as legal permanent residents who have not yet become citizens, while about half report that they have naturalized.

Consistent with this discrepancy from Passel and Cohn (2010), we recognize that our SIPP foreign-born sample differs from the true foreign-born population. For example, as Dowhan and Duleep (2008b) point out, it surely underrepresents other-than-legal immigrants and those with the least stable living arrangements. However, some evidence suggests that as undocumented status has become more prevalent (and thus more "normal"), representation of the undocumented in surveys and the Census has improved, at least in certain communities.[32] We still suggest that readers interpret our results cautiously, bearing in mind that we no doubt understate the share of immigrants in more precarious financial and legal circumstances, and so many of our income estimates may be upper bounds.

[31] Determining legal status is extremely challenging. To code this variable, we use the nativity variable (and assume that those born in the United States are citizens) plus responses to a series of SIPP questions about citizenship, which vary across the panels, and one crude field on citizenship from Numident. The SIPP questions include current citizenship, citizenship at entry into the United States, and adjustment of status since arrival. We also use the presence of match to the SER as an indicator of probability of residing in the United States legally.

[32] Marcelli and Ong (2002) provide a widely cited estimate of undercoverage rates of about 10 percent for the undocumented in Los Angeles.

In appendix table 8, we classify immigrant characteristics by whether the foreign-born individual came to the United States from a less or more developed country. These comparisons reveal that those from less developed countries are more likely to have arrived more recently, for example in the 1990s and since 2000.[33] We estimate that those from less developed countries are more than two and a half times more likely than those from more developed countries to reside in the United States without legal authorization.

We measure the cross-sectional earnings, incomes, and payroll taxes paid and estimate the expected lifetime benefits for immigrants with different characteristics, contrasting them with those for the U.S.-born. We tabulate years of covered work. We consider how patterns of earnings above and below the taxable maximum differ. As just described, we classify immigrants by age and along several dimensions (most prominently, whether they came from less or more economically developed countries and, in some cases, their imputed legal status and/or how long they have been in the United States). For older members of the sample, we also examine the distribution of benefits, both from Social Security and SSI, by size and type for those who collect benefits, benefit claiming ages, and Social Security replacement rates.

In longitudinal analyses, we screen for emigration over the course of the SIPP panel.[34] (Duleep [1994] provides an overview of emigration among immigrants.) We are less able to identify emigration after the last SIPP observation, so again we need to be cautious in interpreting results from our prospective analyses and recognize that they may be upper bound estimates.

[33] The number of missing values varies between the age arrived and year arrived because in the former case we have supplemented the self-reported arrival information with data from the earnings record about when the individual first reports earnings.

[34] The fact that immigrants emigrate at disproportionate rates poses further complications for several of our analyses, especially those where we consider data prospectively (recall that the SER and DER earnings data extend through 2008, so we can examine outcomes for individuals in earlier panels well after baseline). When making prospective comparisons, we always screen for reported emigration over the course of the panel, but recognize that some of our lifetime estimates represent upper bounds because of emigration bias.

Descriptive Results from SIPP

Demographic characteristics of immigrants: Table 1 contrasts the demographic characteristics of SIPP's immigrant and native-born samples. Here, we pool data from all four SIPP panels, using a single person-year for each person in the survey so as not to double count, and consider outcomes for nonnatives separately by whether the individual is from a less or more developed country. Among those from less developed countries, we further disaggregate between those who we estimate are authorized to work and reside permanently in the United States and those who are not (again, using the Social Security Trustees' Report term "other than legal"). (We do not make this same distinction for immigrants from the more developed countries because of relatively small sample sizes.)

A prominent distinction between the native and foreign-born populations is their respective age distributions. The immigrant sample is much younger than the native sample. For example, about 35 percent of immigrants are age 18 to 34, compared with 29 percent of natives. Adults age 65 and older make up almost 12 percent of immigrants but almost 18 percent of natives. However, when we drill down into the data, we see that these age differences are driven entirely by the subset of immigrants from less developed countries; indeed, the immigrants from more developed countries are older than the native population. Further, within the population of immigrants from less developed countries, the age difference is driven by other-than-legal residents, almost 60 percent of whom are age 18 to 34. As a result, when we look at any single variable at a point in time, this underlying difference in age distributions between immigrants and natives and among immigrants from more and less developed countries can confound

comparisons. In subsequent analyses, we address this confounding in various ways, including conditional tabulations and regression analyses.

Consistent with Social Security estimates, there are more women than men in both the foreign- and native-born populations. Men are the majority among those imputed to be other than legal, though our SIPP sample is more balanced by gender than most estimates of this population (e.g., Passel and Cohn 2010, which reports a 58 percent male to 42 percent female ratio for the unauthorized in 2009), again highlighting the need for conservative interpretation of results for this subset of the nonnative population.

Education also differs markedly between the foreign- and native-born, again with a distinct difference between the immigrants from more and less developed countries. The immigrants from developing countries, especially those who are imputed to be other than legal, are less educated than natives, while those from more developed countries are better educated than natives, with a high concentration of college graduates and advanced degree holders.

Immigrant families also have different characteristics than natives. The foreign-born are more likely to be married, a pattern that appears to hold true for both those from more and less developed countries. The pattern persists when we look at the population by 10-year age groups, and statistical tests reveal that many of the differences within age groups are significant (table 2).[35] Table 2 also reveals that substantial fractions of married immigrants from less developed countries, especially those whose imputed legal status is other than legal, report that they are living apart from their spouse. Of course, many natives are married to immigrants and many immigrants are married to natives. Table 1 shows that marriages between natives and immigrants

[35] For this table, as well as most of the tables that compare the native and immigrant populations by age, we make four comparisons: between natives and immigrants, between natives and immigrants from more developed countries, between immigrants from more and less developed countries, and between immigrants from less developed countries who have permanent residence or citizenship and those who have some other legal status.

are particularly prevalent among those from more developed countries, with over two in five immigrants married to a native. Those from less developed countries are less likely to marry natives, but still nearly a fifth do. They also have more children and larger household sizes than natives or their counterparts from more developed countries. (Those who are estimated to be other than legal, because they are so much younger, are more likely to have not yet had children.)

Immigrants also emigrate from the United States at much higher rates than natives. They were about 15 times more likely than natives to be reported to emigrate over the course of the SIPP panel. Immigrants from less developed countries were over three and a half times more likely to emigrate than their counterparts from more developed countries, and those who we classify as other than legal are most likely of all to emigrate—about 25 times more likely than natives. While these estimates rely on small sample sizes and are no doubt underestimates, these differentials across the groups seem plausible.[36]

Table 3 presents information about employment, job characteristics, occupation, and earnings, again by nativity, economic development of place of birth, and imputed legal status among those from less developed countries. Immigrants work at similar rates to natives on average, with those from less developed countries working more than natives and those from more developed countries working less. This surely reflects the different age distributions shown in table 1.

The occupational distributions in table 3 reveal that immigrant workers from more developed countries work in roughly the same proportions as natives in almost every job category displayed. Those immigrants from less developed countries are more concentrated in blue-collar fields, like production, construction, extraction, operator, farm, forestry, and fisheries

[36] Emigration may appear understated depending on the metric used. SIPP represents the U.S. resident population (civilian, non-institutionalized), and therefore the data do not represent most non-immigrants, like visitors from other countries who are not permanently residing, for example.

positions and underrepresented (relative to natives and those from more developed countries) in managerial, professional, clerical, and sales positions. This difference is driven by an extremely different profile among those classified to be in the United States with an other-than-legal status. Indeed, the distribution for authorized immigrants from less developed countries also looks similar to that for natives. When we look more closely at these patterns using age-specific comparisons (table 4), there are statistically significant differences between natives and nonnatives, between natives and immigrants from more developed countries, between immigrants from more and less developed countries, and between immigrants from less developed countries who have legal permanent residence or citizenship and those with some other status for all but the smallest occupational categories. This appears consistent with findings from Orrenius and Zavodny (2009a) on immigrants' greater likelihood of occupying risky jobs.

Table 5 presents ratios of immigrant to native employment rates, once more differentiating immigrants from more and less developed countries and by imputed legal status (for those from less developed countries) but now also by age (mostly five-year age categories) and sex to help disentangle effects of compositional differences across the groups. For men, employment rates are comparable between natives and nonnatives at almost all age ranges, with no statistically significant differences in prime age (between age 20 and 24 and age 55 to 59). Immigrant women work at much lower rates than natives, differences that are statistically significant from age 18 to 19 through age 55 to 59. This phenomenon appears to be primarily driven by the low work rates for women from less developed countries who are imputed to be other than legal. (Both the difference between immigrant women from more and less developed countries and between authorized and other than legal from less developed countries are statistically significant in most prime age groups.)

Table 6 presents ratios of immigrant to native hours worked in the usual week (among just workers, not all people) by level of development of the country of origin, again further classifying workers by age and gender to facilitate direct comparisons across the groups. Except at old and young ages, immigrant workers report fewer hours at work than natives, an especially pronounced (and statistically significant) difference for women in most age ranges.

Table 7 presents age-sex-specific ratios of immigrant to native earnings, once more by level of economic development of country of origin plus imputed legal status for those from less developed countries. The same sorts of patterns present in earlier tables recur. Mean and median earnings for immigrants from more developed countries look similar to natives', with few statistically significant differences in means. The immigrants from less developed countries tend to have much lower mean earnings ratios in prime ages. Consistent with findings in the prior tables, immigrants from less developed countries have very heterogeneous outcomes. At the youngest and oldest ages, the unauthorized have relatively high earnings. But throughout prime age, the authorized from less developed countries earn significantly more than their other-than-legal counterparts. The earnings gap between these immigrants from less developed countries and the other groups narrows considerably when we exclude the other-than-legal group, though the earnings are still not as high as for natives or those from more developed countries. Appendix table 9 also presents age-sex-specific ratios of immigrant to native earnings, but it uses a more detailed accounting of imputed legal status rather than economic development of the country of origin as the key classification variable and reveals differences between legal permanent residents and naturalized immigrants.[37]

[37] In Appendix table 9, other-than-legal immigrants have markedly lower earnings at all ages except the oldest and youngest ages shown. Naturalized citizens have higher earnings than natives, while permanent residents occupy an intermediate position between the other-than-legal and those who have naturalized.

Table 8 presents age-sex-specific ratios of fractions earnings over Social Security's taxable maximum, disaggregating the sample by place or birth and legal status. Immigrant men are less likely to earn above the taxable maximum than natives in some prime age groups (age 35 to 49). However, differences among immigrants are marked. Immigrants from the more developed countries are more likely than natives to earn more than Social Security's taxable maximum, both among men and women, for whom the differences are quite pronounced. Among male workers from less developed countries, those in the United States other than legally are less likely to have earnings above the taxable maximum than their counterparts with work authorization.

We now move from earnings measures at a point in time to those that reflect longer periods. Table 9 presents immigrant-to-native ratios for selected lifetime Social Security measures, including average and median lifetime payroll taxes and average years over the taxable maximum, again by age and gender, and separately by economic development of their countries of origin. (Appendix table 10 displays additional, more aggregated, comparisons for these lifetime earnings measures and includes various work years and program participation measures.) Here, we do not include the classification by legal status, given that so few of the individuals we classify as other than legal are matched to an earnings record. These lifetime measures are a focus because cross-section estimates are more readily available from other data sources.

For workers on the cusp of retirement (age 60 to 64), immigrants' average lifetime payroll taxes are about two-thirds of those for the native-born among men and about 63 percent among women. Median lifetime payroll taxes are a smaller share of natives', just over half for men and just under half for women. When we disaggregate the nonnatives by country of origin,

the picture is consistent with the cross-sectional estimates. Those from developed countries make far greater Social Security contributions than those from less developed countries. But the immigrants from more developed countries still contribute less than natives, reflecting their lower number of years in the labor force (described in more detail below).

Comparing the total number of years with earnings above the taxable maximum, immigrants from less developed countries once more differ markedly from those from more developed countries. The differences are statistically significant for men at most ages and women at younger ages. The immigrants from more developed countries resemble natives more closely, with men's years over the taxable maximum exceeding natives' at younger ages (25 to 29 through 35 to 39). (Recall that the immigrants represented in this table are select relative to the immigrant population at large, as cases matched to the earnings records are more likely to be longer-term immigrants who are not from Mexico or Central America.)

Table 10 presents health status by 10-year age range, nativity, and level of economic development of country of origin for nonnatives. (Appendix table 11 contrasts the health and wealth of the overall sample by nativity and economic development of the country of origin in more aggregated terms, and uses several additional wealth measures including homeownership and home equity.) Once we take age into account, health appears to be better for immigrants than natives at younger ages. Within immigrant populations, however, disparities become apparent, with those from more developed countries reporting better health than those from less developed countries, especially those whose current legal status is imputed to be other than legal.

Table 11 presents SIPP wealth estimates—summarized using net worth divided by the average wage index—by 10-year age group, nativity, economic development of country of origin for nonnatives, and legal status for those from less developed countries. Once more, the relative

advantage of immigrants from more developed countries (compared to natives) and relative disadvantage of those from less developed countries, especially if their status is other than legal, is readily apparent. For example, immigrants from more developed countries are significantly more likely than natives to be in the top wealth group in all four age categories, while their other-than-legal counterparts from less developed countries are significantly less likely to fall into this group than those from the same countries who have work authorization.

Cross-Sectional Income Distributions for Natives and Nonnatives

Figures 2 and 3 display the income distributions of individual natives and immigrants in prime age (age 20 to 64) and after age 64, respectively, for pooled 2004 and 2008 SIPP observations, by gender. These full distributions provide additional useful information beyond that in many of the statistics presented thus far (largely means, medians, and proportions in broad categories), as the distributions reveal differences in the shape and are less likely, as can be the case for means, to be distorted by outliers. For these figures, we define income as the sum of one's own earnings, Social Security benefits, SSI benefits, interest, dividends, benefits from unemployment insurance, workers' compensation, sickness/disability or severance pay, public or general assistance, and pensions (including private, state/local, and federal/military pensions).[38] The figures show every second percentile excluding the maximum (i.e., the 100th percentile). For both age ranges, we see that total incomes for men born in the United States are higher at every point in the distribution than they are for any other group. Nonnative men generally have the next highest incomes, and indeed track the native men's incomes at the very highest percentile shown in both distributions. At the bottom of the distribution for the older population (through the 40th percentile), the native

[38] Validation of these SIPP estimates against external sources (for example table 3.A1 in Social Security Administration 2010b, which is based on data from the Current Population Survey), revealed a very similar 2008 income distribution.

women's incomes outpace the nonnative men's. Finally, nonnative women have the lowest incomes at each percentile, except for at the very top of the distribution, where their incomes track native women's but fall below both native and immigrant men's.

Of course, most people do not live alone, so their economic well-being is better characterized using family or couple income rather than individual income measures. Figures 4 through 7 therefore report total (couple) income, again pooled for 2004 and 2008. Here, we pool men and women and, again, distinguish between immigrants from more and less developed countries, and compare by imputed legal status for those from less developed countries. We also disaggregate the younger age range into three groups—age 20 to 34, 35 to 49, and 50 to 64—to account for the fact that immigrants from developing countries, especially those whose status is other than legal, are so much younger on average than natives and immigrants from more developed countries. In these figures, we classify individuals (rather than couples) by their family income.[39] Readers should bear in mind that about a quarter of foreign-born workers are married to native-born workers (and some workers from more developed countries are married to those from less developed countries and vice versa), so outcomes in each group sometimes reflect mixed families (again, see table 1).

Lower economic outcomes for immigrants from less developed countries tend to drive the native-nonnative differences. Indeed, incomes for those nonnatives from more developed countries actually exceed natives' at most points of the respective distributions in all three of the younger age ranges (20 to 34, 35 to 49, and 50 to 64) and above the 70th percentile for those 65 and older. Within the subset of immigrants from less developed countries, incomes are far lower throughout the distribution for those whose status is other than legal for those in the younger

[39] We do not adjust for family size or income from family members other than a spouse or report on a per capita basis.

three groups. (Sample sizes were too small to permit reliable estimation by legal status for those from less developed countries who are age 65 and older.) At the youngest ages (20 to 34), those from less developed countries who have permanent residence or who have naturalized look similar to natives, though a gap between them and natives grows at older ages. Overall, these graphs highlight tremendous diversity in immigrants' incomes, and suggest greater skewness in immigrants' income than in natives' income.

Earnings Growth and Variability over One- and Five-Year Periods

We turn now to how individuals' earnings change and grow over time. For these analyses, we once more focus on the subset of the sample matched to administrative earnings records (so are effectively excluding most other-than-legal immigrants). One way to look at earnings growth is to calculate percentage changes in earnings, year over year. This has the advantage of capturing both one segment of long-run earnings growth and year-to-year earnings variability. That is, earnings may be 30 percent higher in one year because a recent immigrant is experiencing rapid earnings growth over time, or because, in any given year, earnings are likely to be twice as much or half as much as the year before. The pattern of large year-to-year increases and decreases in earnings shown in figures 8 and 9 tells an interesting story. Immigrants from both more developed countries and less developed countries, whether they have arrived in the country more or less recently, tend to be a bit more likely than natives to experience large increases or large falls in earnings (one-third increase or one-quarter drop, which are offsetting changes). Most groups exhibit somewhat higher than usual variability in earnings in the last year of data, which corresponds to the onset of the 2007–2009 recession.

Looking at longer-run earnings trends, say, over a decade, may be more valuable, though by design it tends to smooth over single-year events. We compute the trend in earnings growth using a simple linear regression of earnings on year for each person, using five years of earnings data. (Because we use nominal earnings, this growth measure reflects both inflation and other aspects of earnings change.) For each SIPP year, the data are centered at the prior calendar year, so in 2007, the data for person *i* consist of DER earnings in 2004, 2005, 2006, 2007, and 2008, regressed on a time variable that takes on the values -2, -1, 0, 1, and 2. In 1996, the data for person *i* consist of DER earnings in years 1993, 1994, 1995, 1996, and 1997, so the data run from 1993 to 2008 and produce estimates of five-year growth from 1996 to 2008 at the individual level. A growth estimate is computed in percentage terms by dividing the estimated slope by the estimated constant term, that is, by dividing average growth in dollars by average earnings over the five years. We compare the distribution of these growth estimates in figures 10 and 11.

Figure 10 compares native and immigrants from more developed countries and less developed countries who arrived 4 to 13 years before the survey date (so their first year of earnings is measured 1 to 10 years after their arrival). The figure shows that natives are much less likely than recent immigrants to have very high rates of growth (more than 5 percent, with the most pronounced disparity in absolute terms the 25 to 75 percent range) over five-year periods, and more likely to have annual growth in the -5 to +5 percent range or negative growth.

Figure 11 compares native and immigrants from more developed countries and less developed countries who arrived more than 13 years before the survey date (and their first year of earnings was measured more than 10 years after arrival). This figure shows that natives are only slightly less likely than less recent immigrants to have very high rates of growth (more than

75 percent) over five-year periods, and roughly equally likely to have annual growth in the 5 to 25 or 25 to 75 percent range.

These estimates support past research findings that show that immigrants start out with very high rates of earnings growth and then come to resemble natives, in terms of earnings growth, after about a decade. However, these figures obscure compositional changes over time in the data; the immigrants who are included in figures with their first year of earnings measured one to ten years after arrival are not necessarily represented in figures showing immigrants with their first year of earnings measured more than ten years after arrival. In separate figures by year, however, the pattern holds up, supporting the notion that the pattern is not due to compositional changes over time in the mix of immigrants or differential emigration.

In addition to using these simple linear regressions to compute a distribution of earnings growth, we can decompose the variance in earnings over people and time (again five years in each window) into variance across people in mean earnings (long-run inequality), variance in growth rates in earnings, and variance in residuals (a measure of realized earnings volatility around trend), following Nichols (2008). The sum of these measures is a generalized entropy measure of inequality (with optimality properties explored by Shorrocks 1984) over people and time that is additively decomposable across subgroups.

The variability of growth rates, variability around trend, and long-run inequality of earnings are all varieties of earnings risk, and risk is an important factor when comparing earnings levels. If two groups have comparable mean earnings but the first group has much higher income risk, we would typically count the first group as worse off, economically. The three varieties of risk into which we decompose the aggregate measure of variability have very different properties. Long-run inequality measures the differences across individuals in more

permanent measures of income than annual earnings (i.e., a five-year average of earning better captures lifetime income than annual earnings at a point in time). Joseph Schumpeter uses one helpful analogy (1955, 126): if the income distribution is like rooms in a hotel, some may reside in the penthouse and some in the broom closet at a point in time, but if everyone changes rooms every night, the point-in-time comparison is less useful than comparing the mean quality of rooms over time. The difference between short-run and long-run inequality is due to mobility (growing or falling incomes) and volatility (incomes jumping around), and both factors are important in their own right.

Variability in earnings could have important effects on retirement preparedness. Mitchell et al. (2007) find different effects of variability on different forms of wealth and for different parts of the population (for example, married compared to unmarried people). The literature in this field suggests that Social Security benefits tend to be less sensitive than pension benefits to earnings variability (Favreault and Nichols 2004).

Figure 12 shows the contributions of variance in growth rates, the variability of earnings around trend, and the variance of mean earnings for natives and immigrants from more and less developed countries who arrived more than 13 years before the survey date. These groups are roughly comparable in terms of these measures of earnings risk, though the less recent group from more developed countries exhibits slightly higher long-run inequality.

Figure 13 compares natives and immigrants who arrived more recently, and here the more recent immigrants from less developed countries exhibit slightly lower long-run inequality, due largely to their low starting points, from which even relatively high earnings growth rates cannot produce diverse outcomes. The more recent immigrants from less developed countries also do not exhibit the uptick in variability in the most recent data, even though they tend to be

employed in industries hardest hit by the recent recession, perhaps because their prospects for dramatic earnings growth are severely diminished (as figure 8 indicates).

Lifetime Earnings Patterns: Work Years Distributions

As we would expect, total years in the workforce are closely tied to gender, nativity, and age at arrival in the United States for nonnatives. Figures 14a and 14b present average work years to select ages by nativity and for various ages at entry among immigrants for men and women, respectively. To construct these figures, we use a sample based on a rolling set of cohorts so that the data reflect the experiences of the eight most recent cohorts to have attained that age (to account for cohort shifts in employment, especially among women). Those who come to the United States as children (i.e., before 16, the minimum age to work without legal hours limits) on average work only slightly fewer years than natives among men, and roughly the same number of years among women. For those who come to the United States as adults, the total number of U.S. work years varies directly with entry age. Because some immigrants may have spent time in the United States before coming to stay permanently, average totals exceed the reported years in the United States permanently (for example, at the oldest arrival age range the average reported years is greater than zero).

These distributions of work years—and how they vary based on education, lifetime earnings, and other characteristics like nativity—are of substantial policy interest. Proposed changes like flexible retirement ages and minimum benefits depend on the number of years one has worked in Social Security–covered employment. Favreault and Steuerle (2008) point out that, especially in more recent birth cohorts, less educated workers have worked less than more educated workers (for both men and women, but with a much larger differential among women).

To explore the extent to which these educational differentials in work years are present in the immigrant population, we estimate a series of regression models that interact education and nativity and also take into account experience with disability and uncovered employment (in order to capture the core population of interest, individuals whose primary coverage is likely to be a Social Security retirement benefit) and also control for the number of years that one is resident in the United States. Table 12 displays Ordinary Least Squares (OLS) regression coefficients for these models, estimated again using pooled data from the 1996, 2001, 2004, and 2008 SIPP panels and the eight most recent birth cohorts to reach each age to account for changing labor effort across cohorts (especially for women). For these estimates, we define a work year as one in which an individual has any Social Security–covered earnings. There is some evidence that the penalty for being less educated is significantly smaller among the foreign-born than the native-born for both men and women, as evidenced by the positive coefficient on the interaction between being nonnative and having less than a high school education at all ages (and that is statistically significant for 9 of 10 groups) we examine. However, the number of years lived outside the United States is measured with error, so the combination of this coefficient and the foreign-born intercept must be factored into these analyses.[40]

Social Security and SSI Benefits for Current Beneficiaries

While Social Security approaches universal coverage, with about 87.2 percent of units headed by a person 65 and older reporting that they receive Social Security and over 91 percent of those 70 and older reporting Social Security receipt (Social Security Administration 2010b, Table 2.A1),

[40] We hypothesize that the coefficient for the effect of years outside the United States is underestimated (because of the categorical measurement) and the coefficient for being foreign born is over-estimated.

receipt profiles differ markedly by nativity. At age 65 and older, immigrants in the pooled SIPP sample are far more likely to be non-beneficiaries than natives (table 13). For example, among those working and not working combined, about 4.1 percent of native men and 7.2 percent of native women age 65 and older are non-beneficiaries, compared with about 11.5 and 11.6 percent for foreign-born men and women, respectively. The disaggregated statistics for the immigrants once more show that different outcomes for the foreign-born from less developed countries largely drive this difference. The foreign-born are also far more likely to receive SSI benefits or a combination or SSI and Social Security compared to natives, who receive Social Security benefits alone at much higher rates.

Social Security benefit levels (presented in table 13 as average annual benefits as a percentage of the Social Security Average Wage Index to facilitate comparability over time) are lower for nonnative beneficiaries than for native beneficiaries, but once more comparably low benefits for immigrants from less developed countries drive this difference. Average SSI benefits are higher for immigrants than for natives, reflecting the fact that immigrants are more likely to be SSI-only beneficiaries, compared with natives who are more likely to be concurrent OASDI-SSI beneficiaries.

Table 14 presents distribution of Social Security claiming ages by gender and nativity. On average, those who are foreign born claim benefits later than natives. This implies that in some cases fewer years in benefit receipt at least partially offset the fewer years that immigrants make payroll tax contributions to Social Security. (Social Security adjusts benefits in a roughly actuarially fair way to account for early or delayed claiming, so delayed claiming only benefits Social Security financing and fairness when it is accompanied by additional work. Table 13 suggests that many foreign-born older workers do continue to work.)

One way to relate retirement benefits to earlier earnings is by considering a measure like a replacement rate. Nonnative workers' Social Security replacement rates at time of first benefit claiming are more skewed than native workers' (figure 15). Here, we focus first on observations from the 2008 SIPP to get the most recent possible pattern and use the ratio of PIA, the benefit to which an individual would be entitled at the full benefit age based on his or her own earnings, to lifetime earnings as our indicator of a replacement rate.[41] We show every second percentile of the distribution of replacement rates. We find that nonnatives are far more likely than natives to have made contributions and not become eligible for a worker benefit, but also would be far more likely to receive high replacement rates.

Because Social Security provides benefits to workers' spouses and survivors, these individual replacement rates are not adequate to show a complete picture of the program's treatment. Figure 16 thus shows replacement rates that take into account one's current spouse's earnings, and the spousal benefits that these earnings would generate for lesser-earning spouses.[42] When we take current spouses into account, fewer fall into the category that have made payroll tax contributions but do not qualify for a benefit, but immigrants still dominate this end of the distribution.

To take into consideration cohort trends in employment and changes in the Social Security benefit formula for later cohorts, we look at younger retirees (those age 62 to 69) in figures 17 (just for 2008) and 18 (pooled for 2004 and 2008 to test for robustness of the observed patterns to sample sizes). In these figures, we display every fifth percentile rather than every

[41] We express lifetime earnings using a measure similar to AIME, average indexed earnings over the highest 35 earnings years, except that while AIME must be positive, we do not test the AIME for having met a minimum covered quarters threshold. For ease of presentation, we set the replacement rate to 100 percent for individuals who received more than 100 percent and to -0.05 for those who made contributions but never collected benefits.
[42] These calculations do not take into account the earnings of former spouses who died or from whom an individual divorced prior to the SIPP panel, and thus understate spouse and survivor entitlement.

second percentile to preserve confidentiality of the data given the smaller sample sizes. These figures show that native women's replacement rates start to resemble men's more closely when we focus on these younger populations (though this pattern is more pronounced in pooled data in figure 18 than in the 2008 data in figure 17). Nonnative women continue to have the most skewed outcomes.

In figure 19, we look into the future to project how replacement rates will differ between natives and nonnatives who are currently approaching retirement age. For these analyses, we need to make some assumptions about how much those who are not yet retired will continue to work. We make the simplistic assumption that individuals will earn the average of their past three years of earnings through age 62. Under these assumptions, replacement rates for native women begin to strongly resemble those of nonnative men. Nonnative women's replacement rates, in contrast, remain markedly higher than any other group's rates for all but the very bottom of the distribution. This is consistent with the employment and earnings patterns described earlier.

Replacement rates measure Social Security benefit relationships at just one point in time. Expected benefits over a lifetime are also interesting. Several additional components figure into these: time of first benefit claiming and expected duration of receipt. Appendix tables 12a and 12b present coefficients from a model of mortality for adult men and women, respectively, to try to determine how immigrant life expectancies compare to natives. Assuming that the large coefficient for those recent to the United States from less developed countries partially—or potentially largely—reflects unmeasured emigration bias, the coefficient for being foreign born remains negative.[43] While not conclusive because of the measurement challenges, this result is suggestive of an immigrant mortality advantage, consistent with prior literature.

[43] We additionally conducted analyses of the sensitivity of the foreign-born coefficient to the specification of the lifetime earnings measure we include in the model to account for truncated earnings for many immigrants (for

Proposals to Change Social Security

Because of Social Security's long-run fiscal imbalance, projected to amount to about $5.4 trillion over the 75-year projection horizon (Board of Trustees 2010), a substantial fraction of literature and research on changes to Social Security focuses on changes to benefits or to payroll or income taxes that would place the program on a stronger long-term financial footing. Other strands of the literature consider the adequacy of program benefits (for example, National Academy of Social Insurance 2009) and equity (for example, Gustman and Steinmeier 2000). Solvency, equity, and adequacy issues loom large for foreign-born workers. Given their younger age distribution, immigrants (and their children) could bear a disproportionate share of any increases to payroll tax rates or reductions in benefit levels that Congress enacts to bring the system into long-term balance. On the other hand, immigrants' higher poverty rates and lower average benefits could lead them to benefit should program adequacy be shored up for long-term low-wage workers in the course of reforming Social Security reform. But equity and targeting concerns could arise for immigrants with short careers at high wages who may benefit from progressivity of the formula.

Social Security Policy Simulations

We consider two types of Social Security changes: adequacy adjustments and benefit pro-rating adjustments to account for fewer work years in the United States for those who enter the country in their working years (rather than childhood). For the adequacy adjustments, we consider three separate minimum benefits. The first offers workers with a minimum of 80 covered quarters (equal to 20 years) a benefit equal to 60 percent of the federal poverty level (FPL). This increases by 3 percent for each additional year of work, reaching a maximum of 120 percent of the FPL

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example, we included various interaction terms). These alternative specifications did not substantially change the qualitative model results.

with 40 work years. The second minimum is more generous, starting with a base of 80 percent of the FPL for 20 years, but increases at a slower rate to 120 percent of the FPL (2 percent per additional year of work). The third minimum uses instead the earnings thresholds from the current law special minimum PIA, which is substantially higher than the threshold for four quarters of coverage used in the first two minimum benefits. Under this minimum, benefits reach 125 percent of the FPL with 30 years of coverage using the current law special minimum thresholds.

In these analyses, we focus on outcomes for individuals from the 1943 to 1952 birth cohorts, who were just reaching retirement age in 2008. We find that these three low-benefit adjustments (table 15) increase worker benefits for between 1 and 18 percent of these current and near beneficiaries, depending on the generosity of the benefit.[44] Benefits grow on average between 10 and 23 percent. In each case, natives benefit proportionately more than immigrants from the changes. Poverty reduction is similar in absolute terms for natives and immigrants, which implies that it is higher in percentage terms for natives.

The equity adjustment prorates according to years in residence (and thus at risk of work) in the United States. We multiply each nonnative worker's PIA by a simple ratio of years residing in the United States to 35, the base period for the AIME calculation for a retired worker. In calculating AIME, the nonresident years are not included in the computation years. Table 16 present the results, again focusing on worker benefits for those in the 1943 to 1952 birth cohorts, separately for immigrants from more and less developed countries. The median ratio of current law benefit to benefit computed with prorating is about 95 percent, reflecting the fact that most immigrants arrive to the United States relatively early in life and so work close to a full career

[44] We focus on worker benefits, even though they are an incomplete representation of Social Security entitlement, in part to reduce sample selection. Requiring both spouses in a married couple to have a match to the SER means reduces sample sizes markedly both for natives and nonnatives.

(recall appendix table 8, which shows that nearly half in our sample arrived by age 25), though a substantial minority receive large reductions to their benefits. For example, about a quarter of beneficiaries see their benefits fall to less than 75 percent of the current law benefit, and 10 percent to half or less. Immigrants with subpoverty worker benefits increase to the majority (52 percent) under the option, compared with about 41 percent under current law, suggesting that this proposal could threaten income adequacy for this population (those spouse and survivor benefits could have important mitigating effects for some). So, as is often the case with Social Security analyses, there are often tradeoffs between adequacy and equity goals with these provisions.

Conclusions

Immigrants' experience with the labor market and Social Security in the United States, both in prime age and as reflected in retirement well-being, are very heterogeneous. While outcomes for immigrants from countries with higher per capita GDP resemble natives' outcomes closely on many dimensions, those for immigrants from countries with lower per capita GDP diverge markedly and reveal significant economic vulnerability both in working years and retirement. Additional analyses suggest that immigrants from lower GDP countries who are not authorized to live and work permanently (other-than-legal residents) likely account for a large fraction of the gap between immigrants from higher and lower GDP countries. These patterns persist for a wide range of outcomes, including earnings, wealth, and even health status. While earnings gaps between immigrants from lower GDP countries and others do close in the early years in the U.S. labor force due to faster wage growth, large disparities nonetheless persist by later life and into retirement.

These diverse—and sometimes divergent—patterns in immigrant experience pose several challenges for policymakers. Our analyses suggest that adequacy adjustments along the lines of those that recent commissions have proposed would not disproportionately advantage immigrants in the short term. They also suggest that adjustments to benefit calculations to reduce the benefit from progressivity for more advantaged immigrants with relatively short careers would at the same time significantly increase vulnerability to poverty among less-advantaged immigrants. This suggests policymakers should be cautious about moving in this direction and carefully address the details of such a policy's design. Our analyses also highlight the especially important role that the SSI program plays for retired immigrants, many of whom receive either concurrent SSI and OASDI benefits or SSI benefits alone.

These analyses leave many questions unanswered, especially given the substantial share of the younger foreign-born population that now works without authorization and uncertainty about how U.S. immigration policy might evolve in coming decades. While some other-than-legal immigrants accrue Social Security coverage after adjusting their status, many others have few legal avenues for adjusting status and accruing entitlement to retirement benefits from Social Security. It is difficult to speculate, even with these rich data, on the retirement preparedness of this subset of the foreign-born population, given how mobile the population is,[45] how incomplete the data are, and how dependent their outcomes ultimately may be on policy choices that have yet to be made. Our results underscore the importance of Massey and Bartley (2005)'s admonition that other-than-legal populations (both the unauthorized and nonimmigrant nonnatives) should be considered separately when examining economic well-being of the foreign born.

[45] Even in short periods in the SIPP, many of these individuals are reported to move across national borders.

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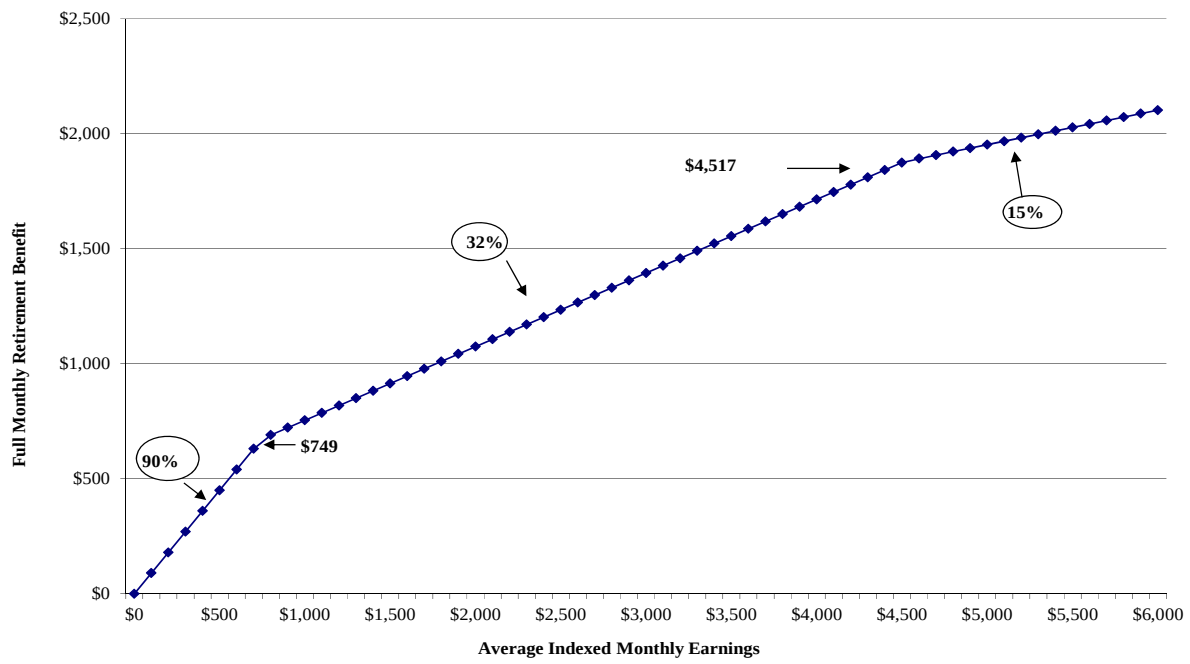
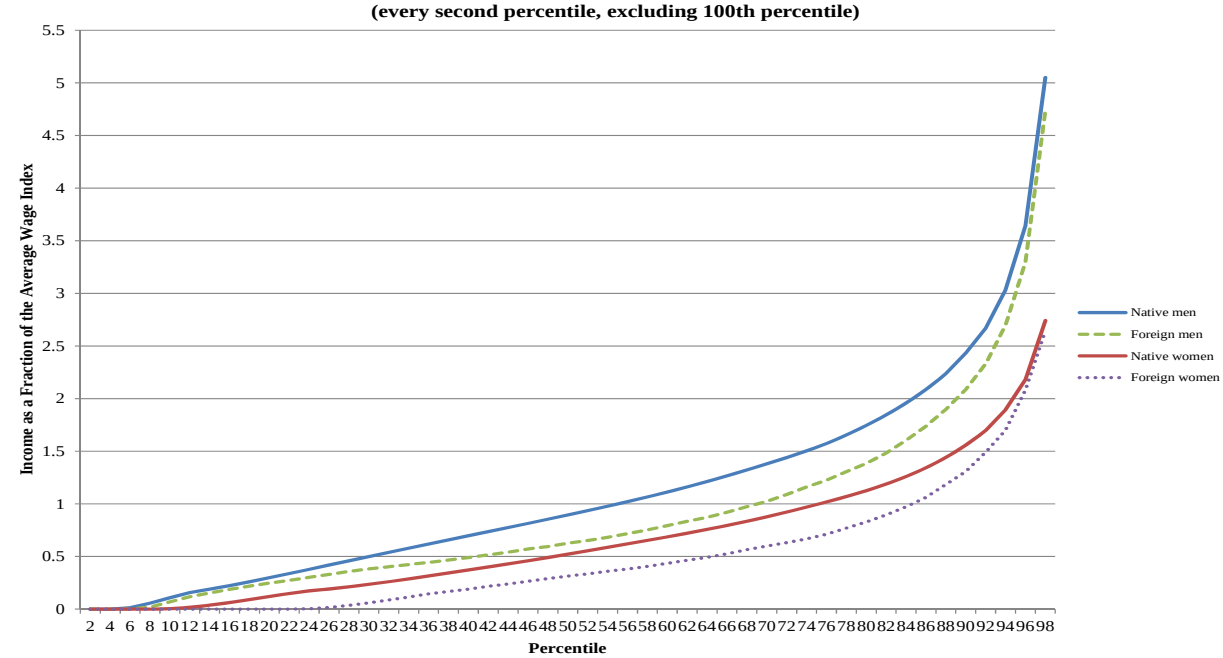
Figure 1. Social Security Benefit Formula, 2011
(with Replacement Percentages (in circles) and Bend Points)



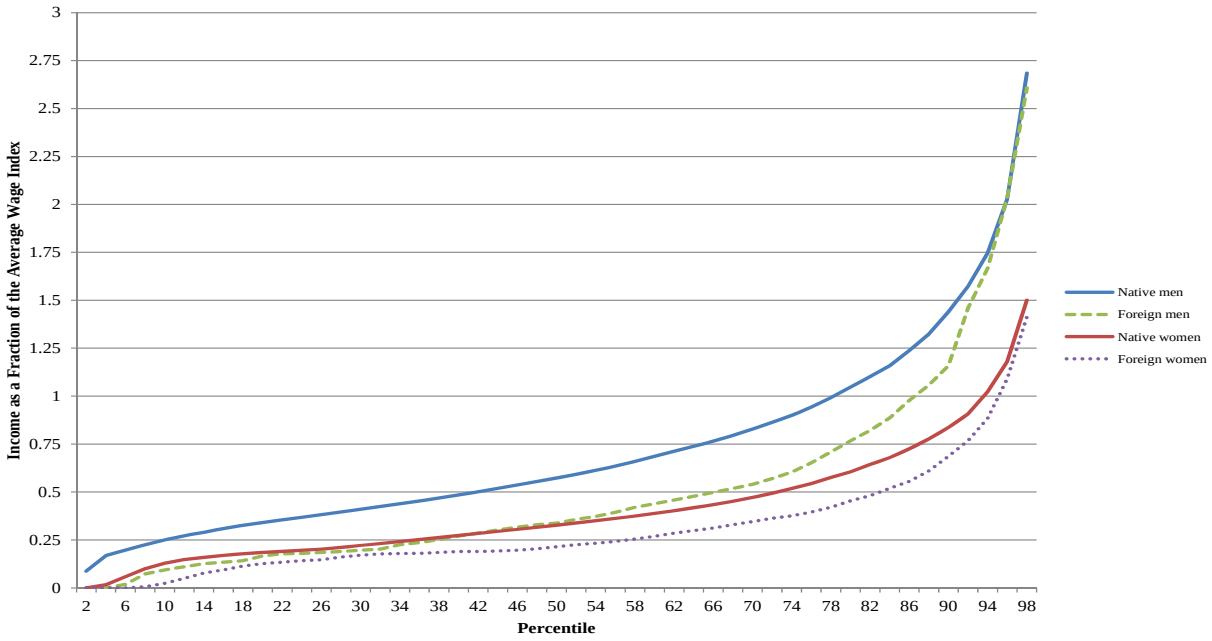
Source: Authors' tabulations of Social Security law.

Figure 2. Individual Income Distributions for Those Age 20 to 64 by Gender and Nativity, Pooled 2004 and 2008
(every second percentile, excluding 100th percentile)



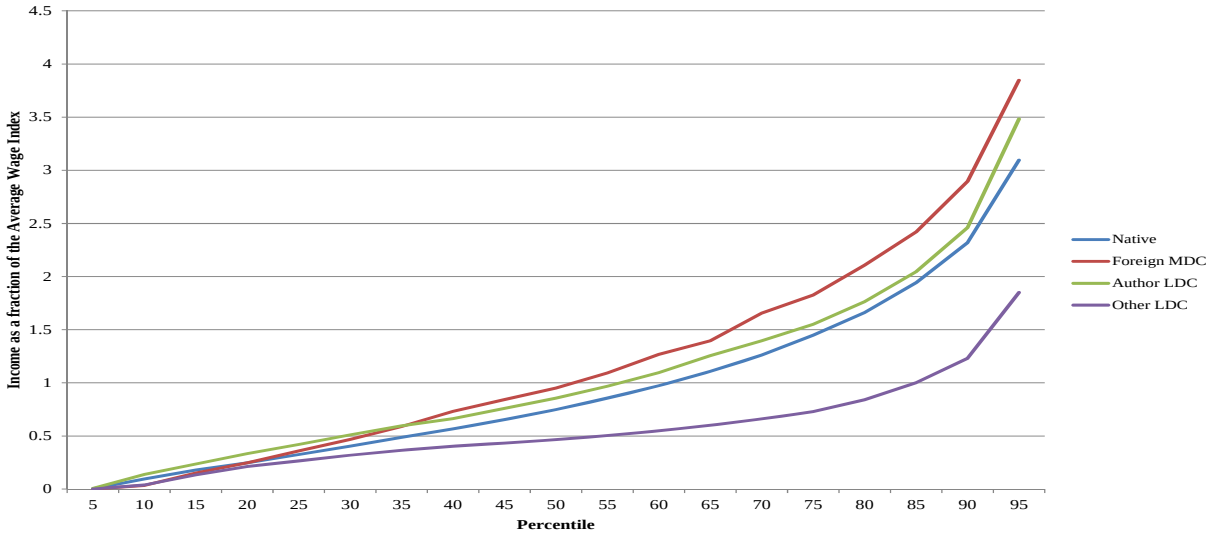
Source: Authors' tabulations from the Survey of Income and Program Participation matched to Detailed Earnings Record, Master Beneficiary Record, Numident, and Supplemental Security Record.
N: 47,913 (native men), 53,124 (native women), 8,841 (foreign-born men), 9,297 (foreign-born women).

Figure 3. Individual Retirement Income Distributions for Those Age 65 and Older by Gender and Nativity, Pooled 2004 and 2008
(every second percentile, excluding 100th percentile)



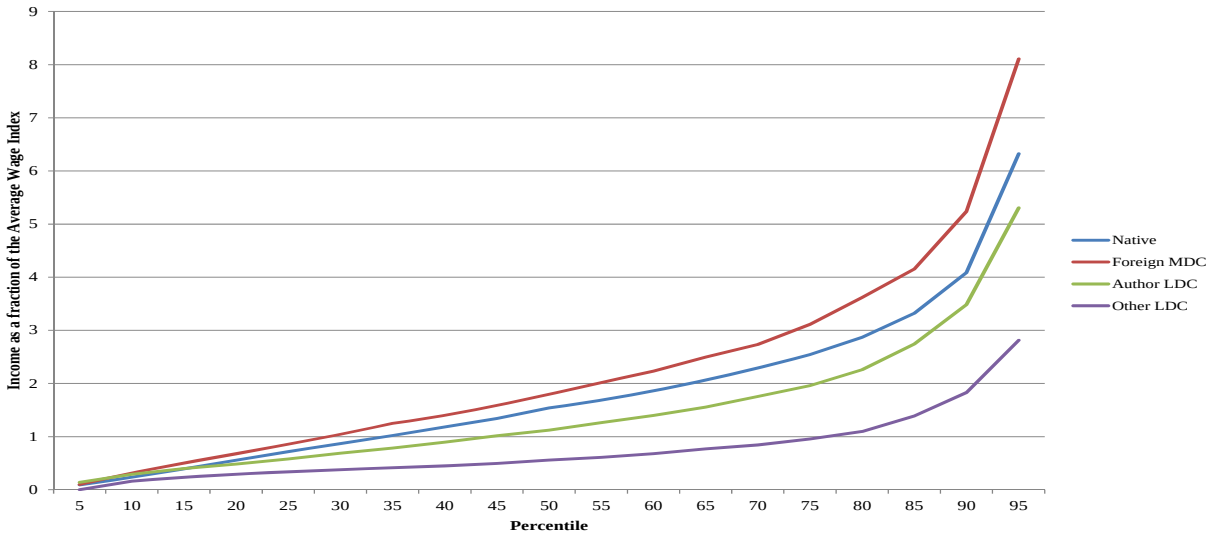
Source: Authors' tabulations from the Survey of Income and Program Participation matched to Detailed Earnings Record, Master Beneficiary Record, Numident, and Supplemental Security Record.
N: 9,601 (native men), 12,904 (native women), 927 (foreign-born men), 1,395 (foreign-born women).

Figure 4. Family Income Distribution for Adults Ages 20-34, by Level of Economic Development of Country of Origin and Imputed Legal Status for Those from Less Developed Countries, 2004 and 2008
(every fifth percentile, excluding the 100th percentile)



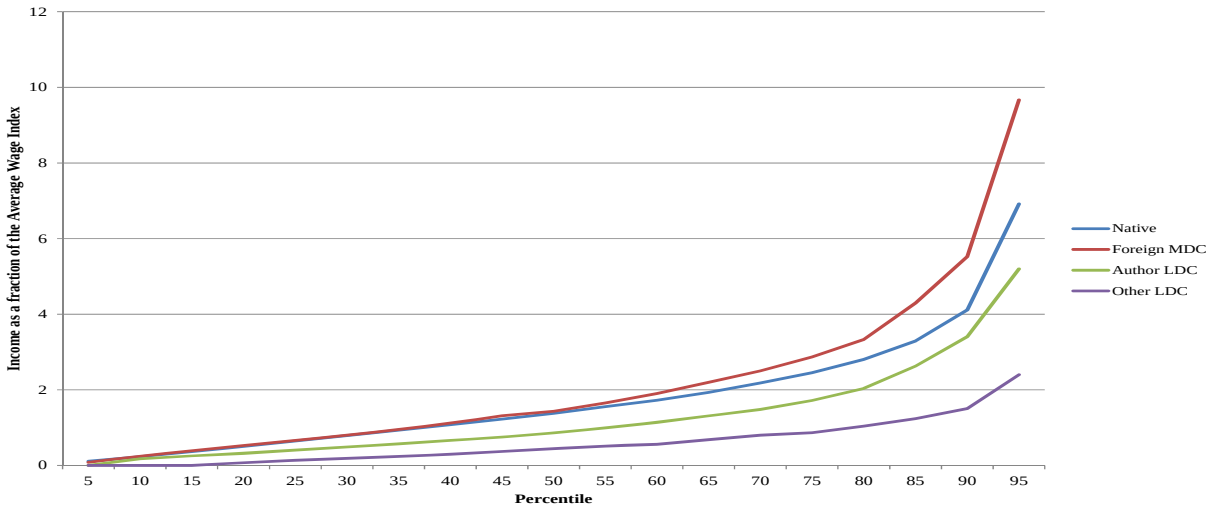
Source: Authors' tabulations from the Survey of Income and Program Participation matched to Detailed Earnings Record, Master Beneficiary Record, Numident, and Supplemental Security Record.
Notes: MDC refers to countries with per capita GDP of greater than $15,000, LDC refers to countries with less (see text for details).
N: 28,387(native), 852 (foreign more developed), 2,336 (foreign less developed, authorized), 2,029 (foreign less developed, other).

Figure 5. Family Income Distribution for Adults Ages 35-49, by Level of Economic Development of Country of Origin and Imputed Legal Status for Those from Less Developed Countries, 2004 and 2008
(every fifth percentile, excluding the 100th percentile)

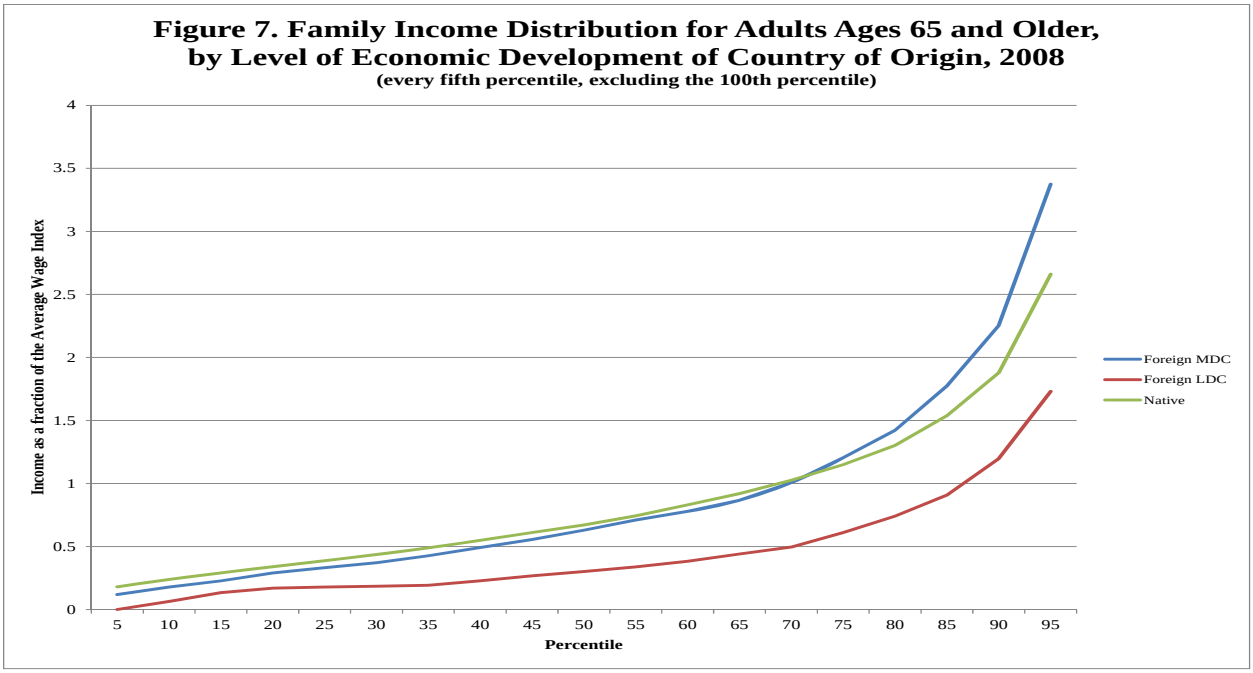


Source: Authors' tabulations from the Survey of Income and Program Participation matched to Detailed Earnings Record, Master Beneficiary Record, Numident, and Supplemental Security Record.
Notes: MDC refers to countries with per capita GDP of greater than $15,000, LDC refers to countries with less (see text for details).
N: 34,036 (native), 1,325 (foreign more developed), 3,929 (foreign less developed, authorized), 1,029 (foreign less developed, other).

Figure 6. Family Income Distribution for Adults Ages 50-64, by Level of Economic Development of Country of Origin and Imputed Legal Status for Those from Less Developed Countries, 2004 and 2008
(every fifth percentile, excluding the 100th percentile)

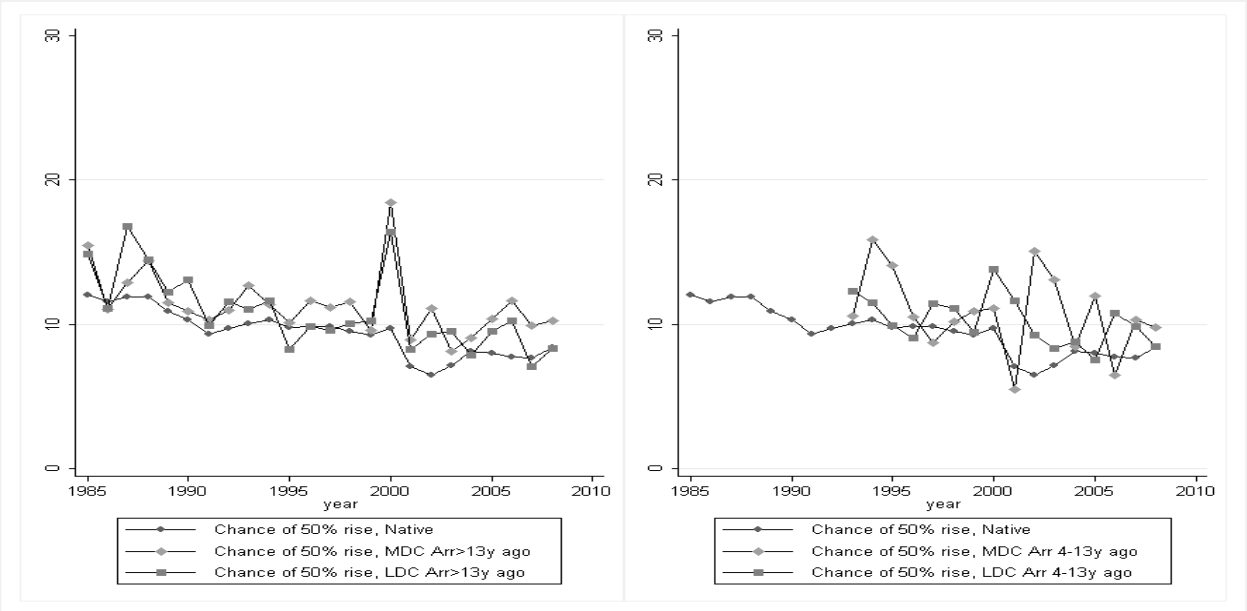


Source: Authors' tabulations from the Survey of Income and Program Participation matched to Detailed Earnings Record, Master Beneficiary Record, Numident, and Supplemental Security Record.
Notes: MDC refers to countries with per capita GDP of greater than $15,000, LDC refers to countries with less (see text for details).
N: 28,859 (native), 1.098 (foreign more developed), 2,190 (foreign less developed, authorized), 287 (foreign less developed, other).



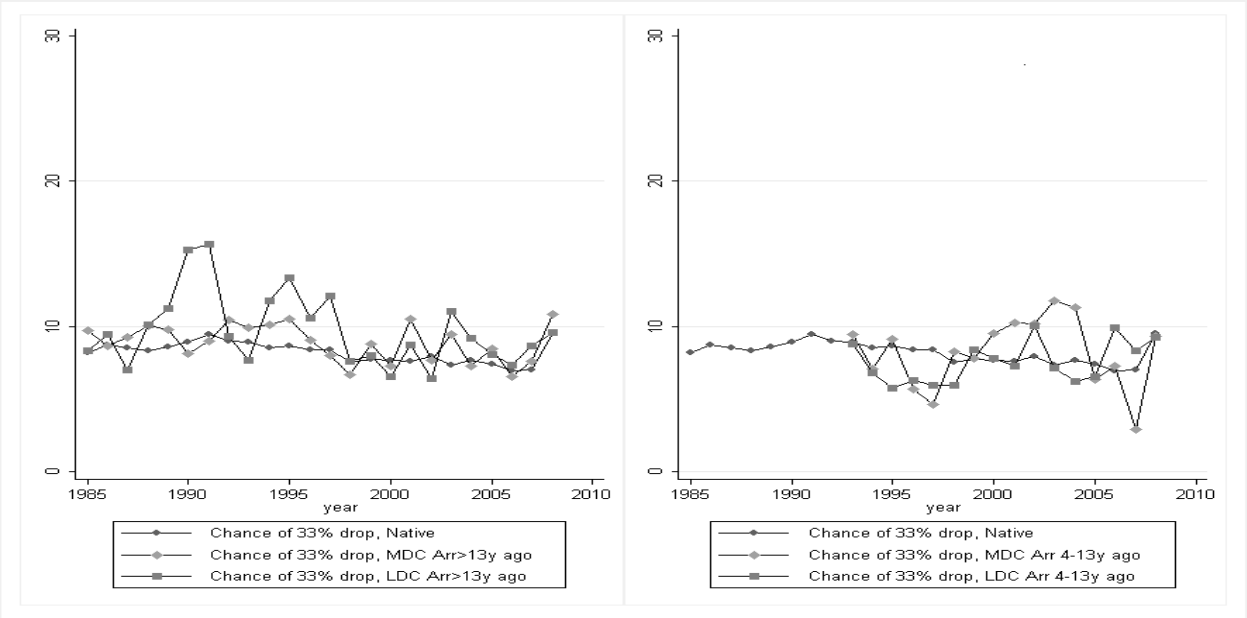
Source: Authors' tabulations from the Survey of Income and Program Participation matched to Detailed Earnings Record, Master Beneficiary Record, Numident, and Supplemental Security Record.
Notes: MDC refers to countries with per capita GDP of greater than $15,000, LDC refers to countries with less (see text for details).
N: 11,110 (native), 521 (foreign more developed), 728 (foreign less developed).

Figure 8. Proportion Experiencing a Large (at Least One Third) Increase in Earnings from One Year to the Next, by Nativity, Per Capita GDP of Country of Origin, and Years in the United States



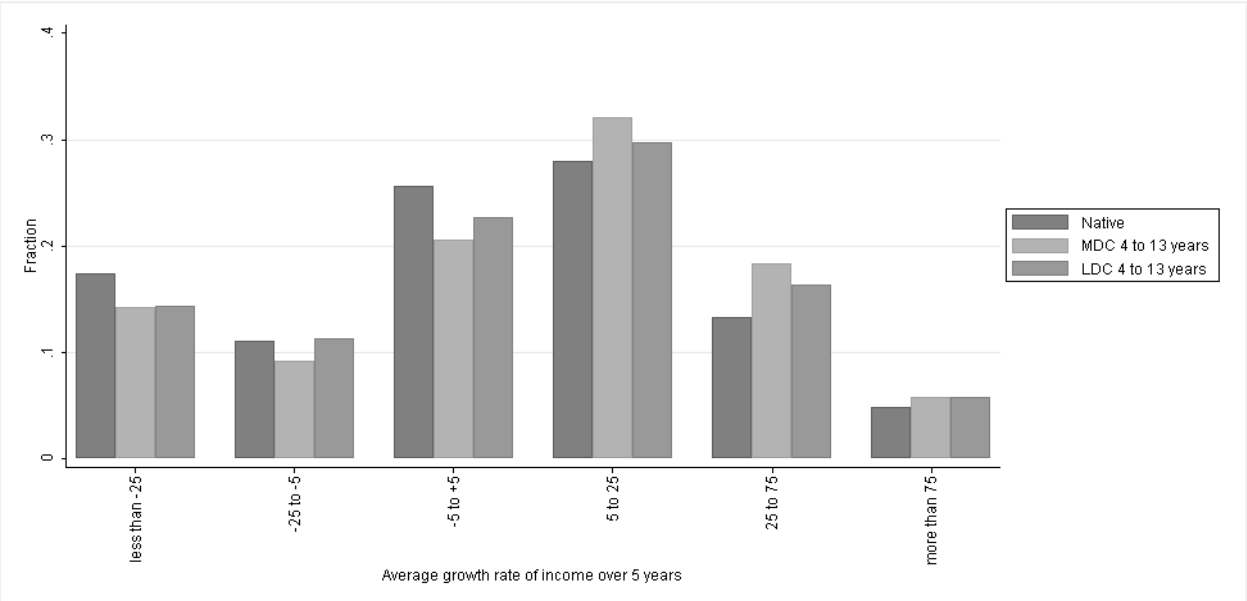
Source: Authors' tabulations from the Survey of Income and Program Participation matched to Detailed Earnings Record and Numident.
Notes: MDC refers to countries with per capita GDP of greater than 15,000 dollars, LDC refers to countries with less (see text for details).

Figure 9. Proportion Experiencing a Large (at Least One Quarter) Drop in Earnings from One Year to the Next, by Nativity, Per Capita GDP of Country of Origin, and Years in the United States



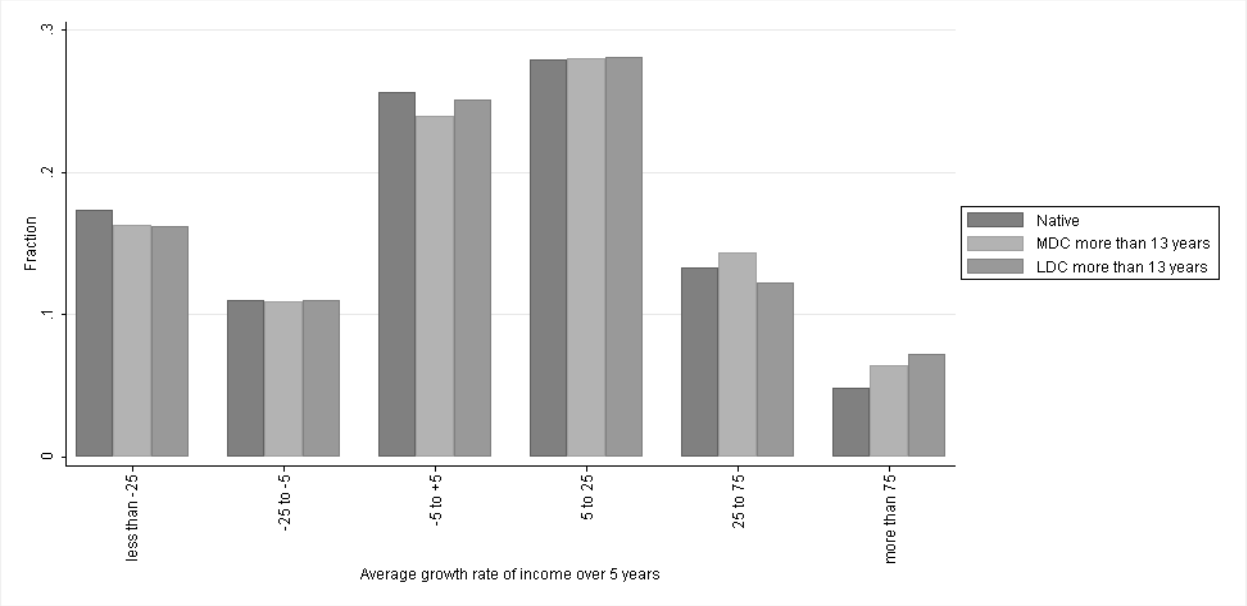
Source: Authors' tabulations from the Survey of Income and Program Participation matched to Detailed Earnings Record and Numident.
Notes: MDC refers to countries with per capita GDP of greater than $15,000, LDC refers to countries with less (see text for details).

Figure 10. Distribution of Five-Year Earnings Growth Rates, by Nativity and Per Capita GDP of Country of Origin for Relatively Recent Immigrants



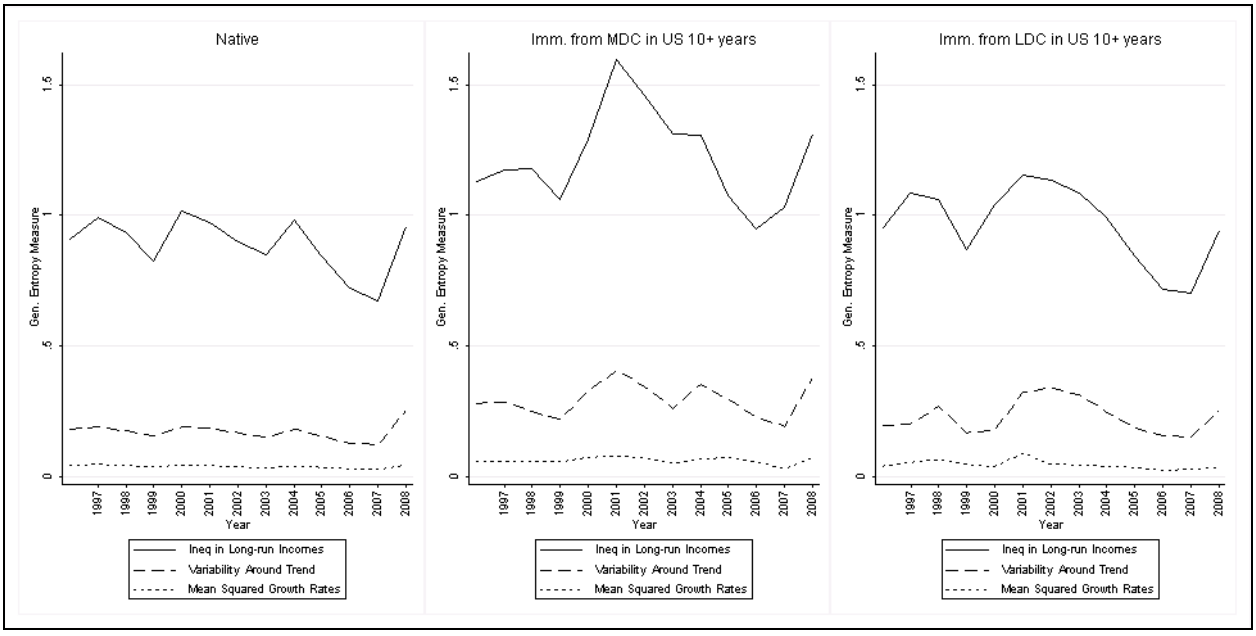
Source: Authors' tabulations from the Survey of Income and Program Participation matched to Detailed Earnings Record and Numident.
Notes: MDC refers to countries with per capita GDP of greater than $15,000, LDC refers to countries with less (see text for details).

Figure 11. Distribution of Five-Year Earnings Growth Rates, by Nativity and Per Capita GDP of Country of Origin for Less Recent Immigrants



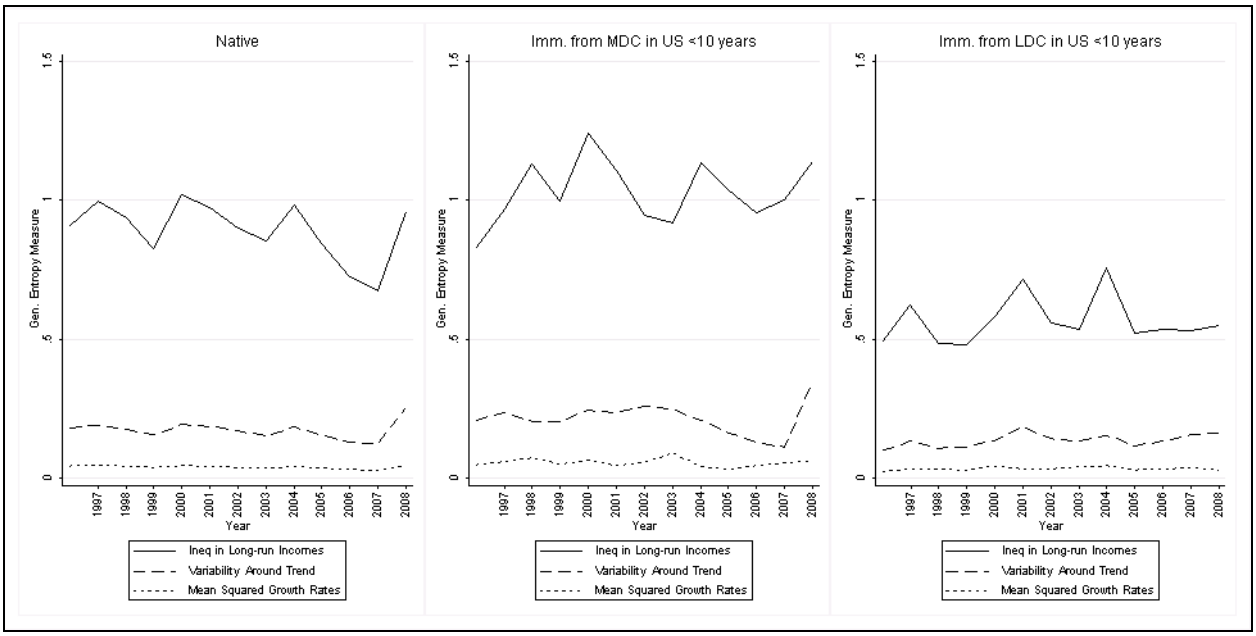
Source: Authors' tabulations from the Survey of Income and Program Participation matched to Detailed Earnings Record and Numident.
Notes: MDC refers to countries with per capita GDP of greater than $15,000, LDC refers to countries with less (see text for details).

Figure 12. Level of Variance in Growth, Variability, and Inequality, Summed, by Nativity and Per Capita GDP of Country of Origin for Less Recent Immigrants



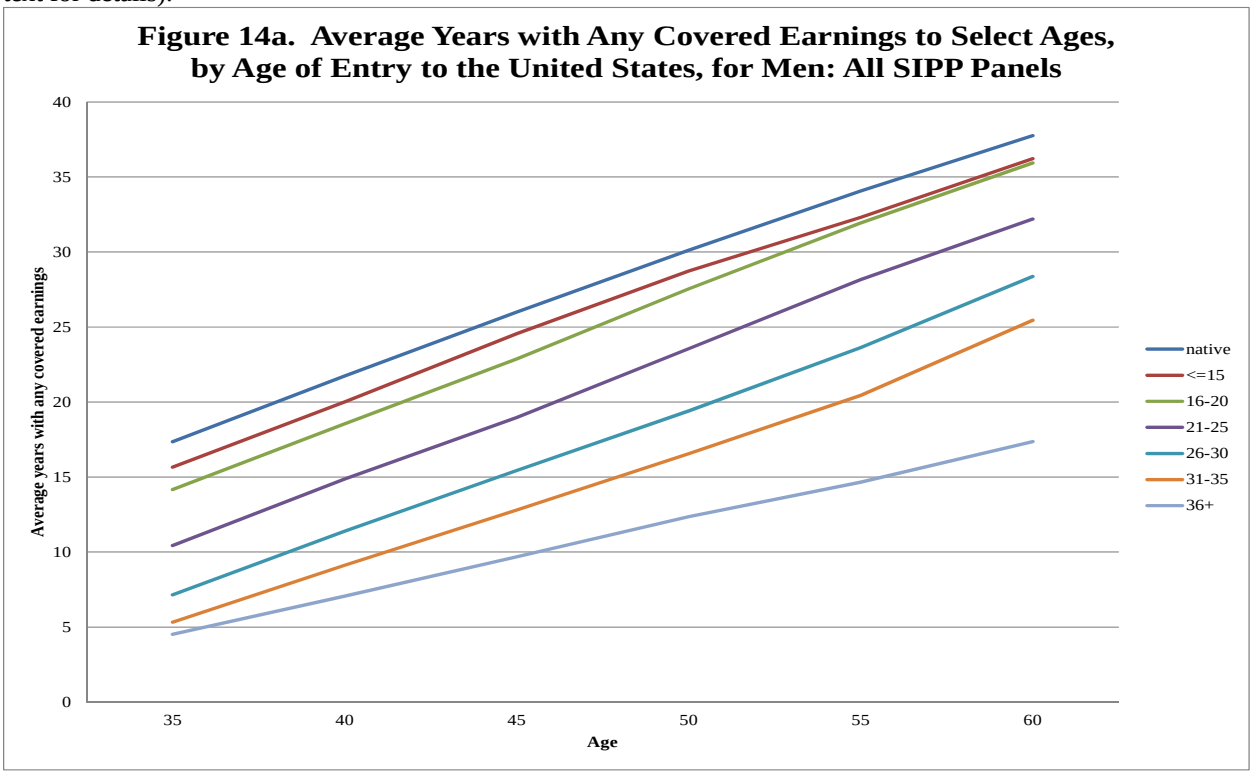
Source: Authors' tabulations from the Survey of Income and Program Participation matched to Detailed Earnings Record and Numident.
Notes: MDC refers to countries with per capita GDP of greater than $15,000, LDC refers to countries with less (see text for details).

Figure 13. Level of Variance in Growth, Variability, and Inequality, Summed, by Nativity and Per Capita GDP of Country of Origin for More Recent Immigrants



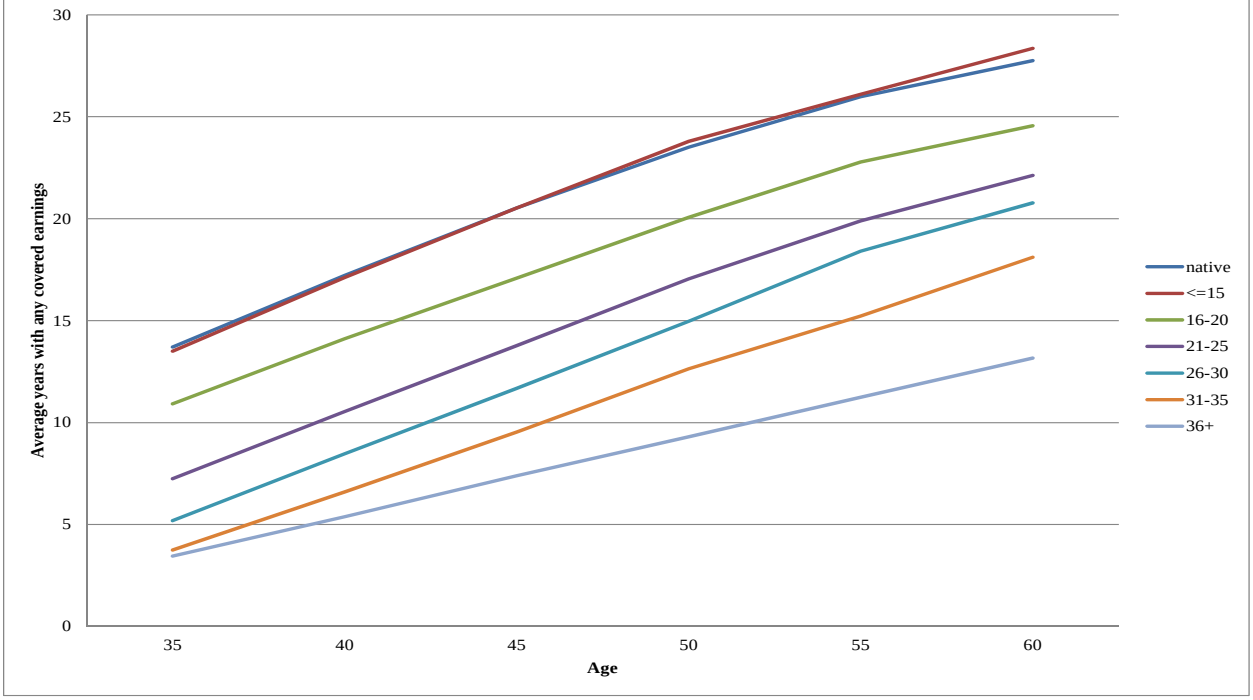
Source: Authors' tabulations from the Survey of Income and Program Participation matched to Detailed Earnings Record and Numident.
Notes: MDC refers to countries with per capita GDP of greater than $15,000, LDC refers to countries with less (see text for details).

Figure 14a. Average Years with Any Covered Earnings to Select Ages, by Age of Entry to the United States, for Men: All SIPP Panels



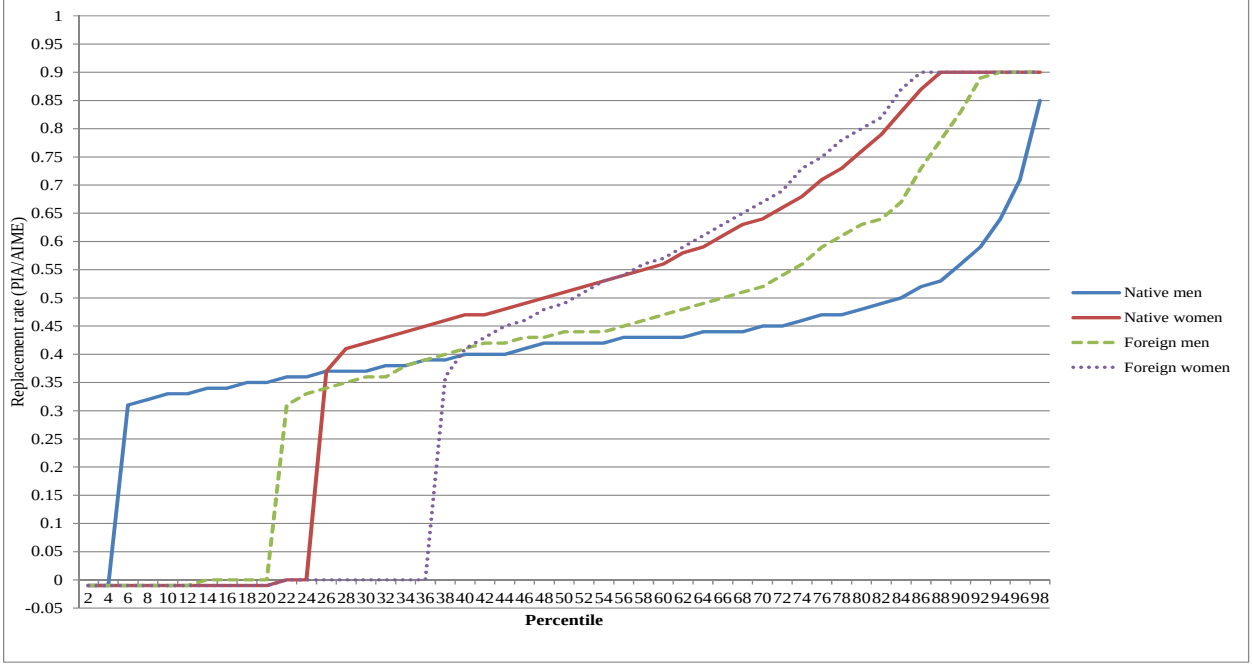
Source: Authors' tabulations from the Survey of Income and Program Participation matched to Numident and Summary Earnings Record. Sample includes latest eight birth cohorts to attain each age.

Figure 14b. Average Years with Any Covered Earnings to Select Ages, by Age of Entry to the United States, for Women: All SIPP Panels



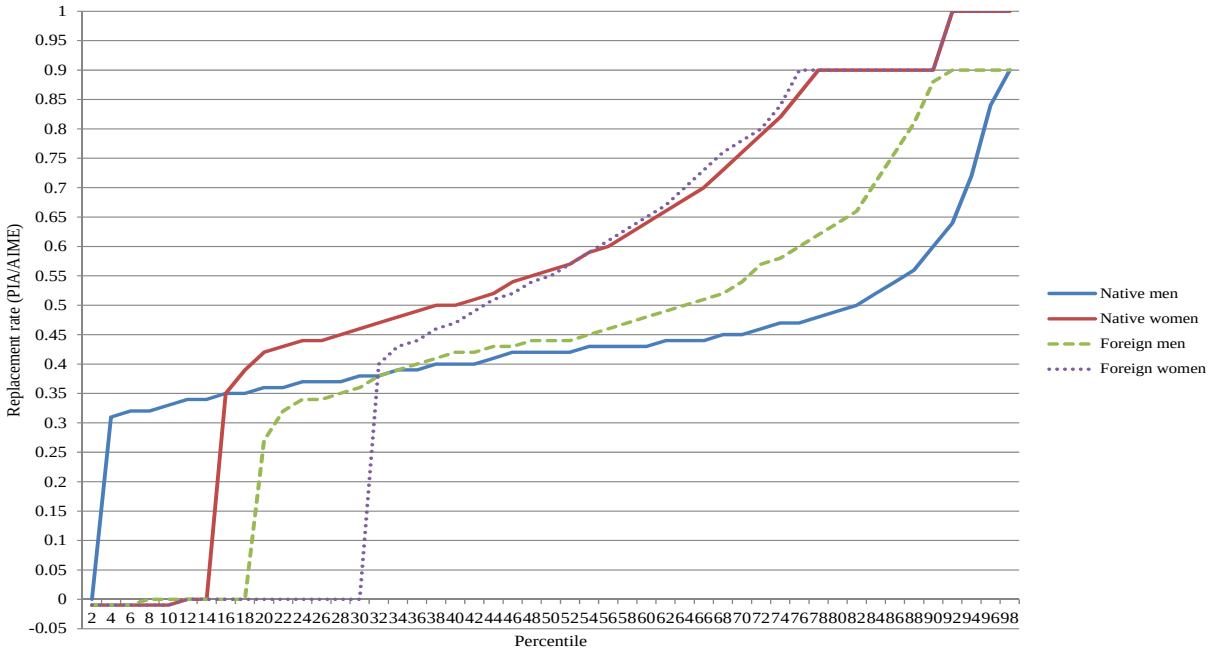
Source: Authors' tabulations from the Survey of Income and Program Participation matched to Numident and Summary Earnings Record. Sample includes latest eight birth cohorts to attain each age.

Figure 15. Distribution of Social Security Replacement Rates Based on Own Earnings by Nativity and Gender, 2008
(every second percentile, except the highest percentile)



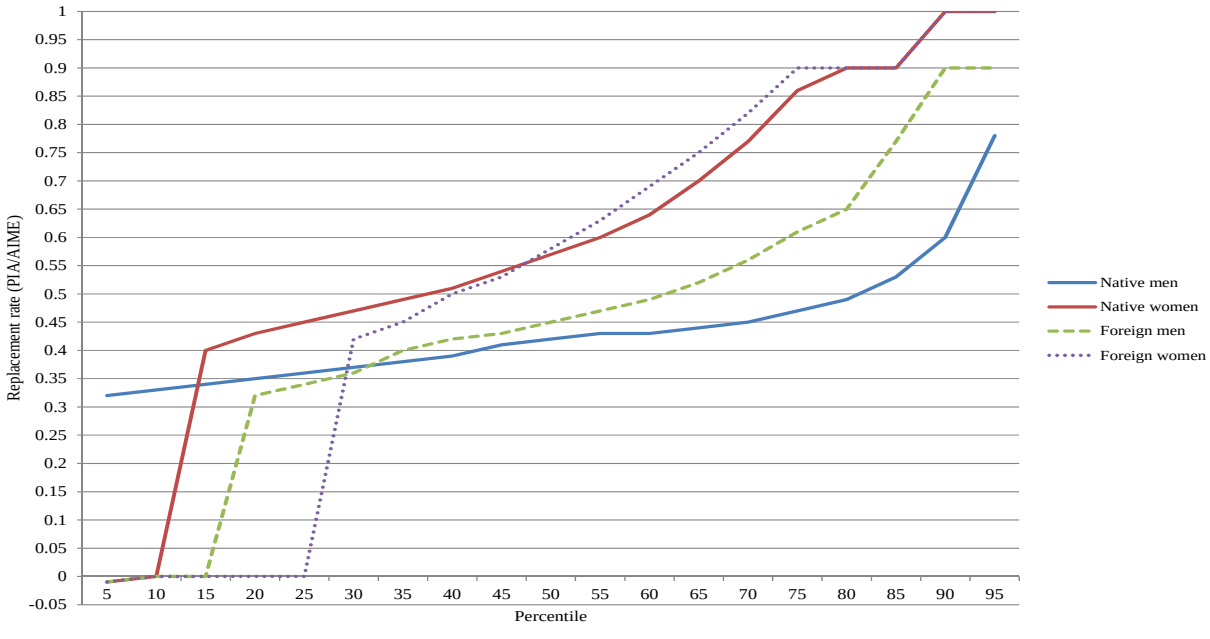
Source: Authors' tabulations from the Survey of Income and Program Participation matched to Numident and Summary Earnings Record.
N: 6,042 (native men), 7,309 (native women), 577 (foreign-born men), 774 (foreign-born men).

Figure 16. Distribution of Social Security Replacement Rates Based on Own or Current Spouse Earnings by Nativity, 2008
(every second percentile, except the highest percentile)



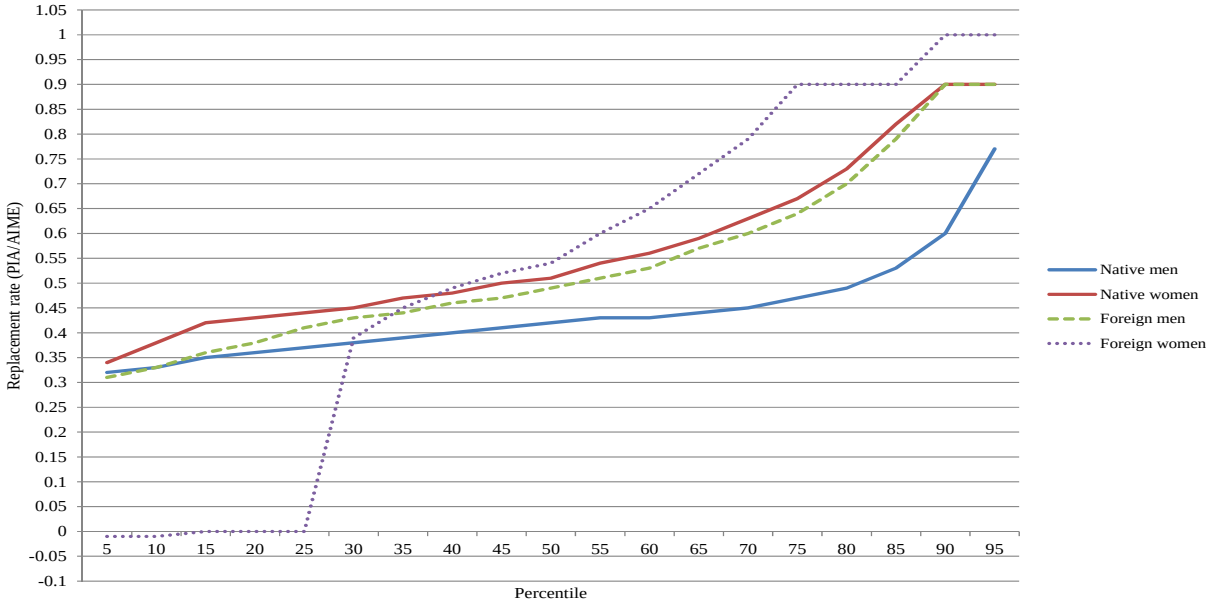
Source: Authors' tabulations from the Survey of Income and Program Participation matched to Numident and Summary Earnings Record.
N: 6091 (native men), 7429 (native women), 588 (foreign-born men), 815 (foreign-born women).

Figure 17. Distribution of Social Security Replacement Rates Based on Own or Current Spouse Earnings by Nativity, Ages 62 to 79, 2008
(every fiftth percentile, except the highest percentile)



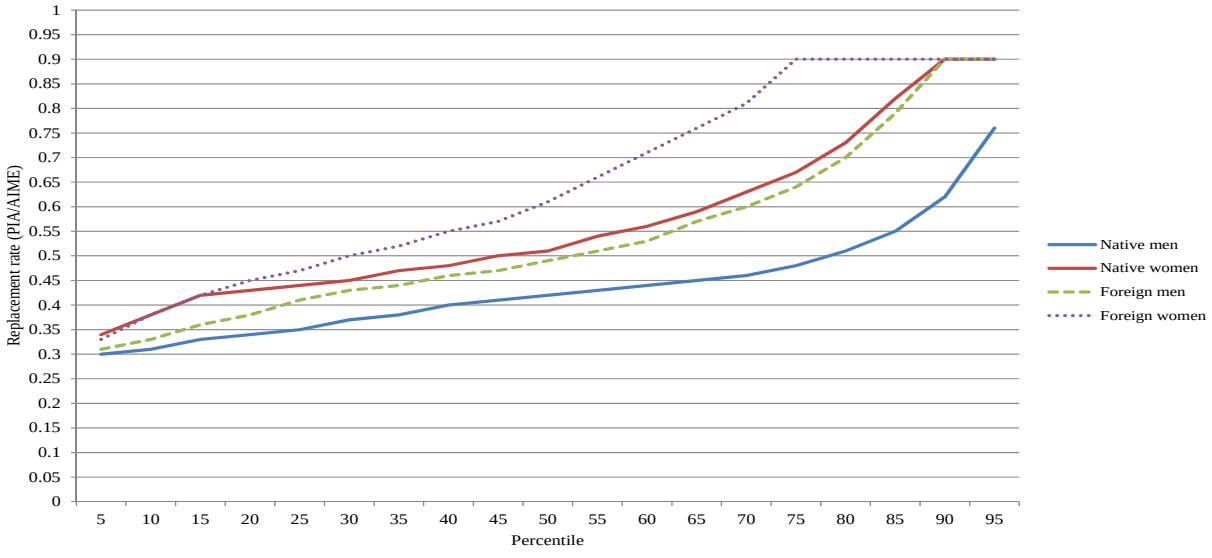
Source: Authors' tabulations from the Survey of Income and Program Participation matched to Numident and Summary Earnings Record.
N: 5,154 (native men), 5,940 (native women), 519 (foreign-born men), 672 (foreign-born women).

Figure 18. Distribution of Social Security Replacement Rates Based on Own or Current Spouse Earnings by Nativity, Ages 62 to 79, Pooled 2004 and 2008
(every fifth percentile, except the highest percentile)



Source: Authors' tabulations from the Survey of Income and Program Participation matched to Numident and Summary Earnings Record.
N: 9,444 (native men), 11,287 (native women), 635 (foreign-born men), 874 (foreign-born women).

Figure 19. Distribution of Social Security Replacement Rates Based on Own or Current Spouse Earnings (Assuming Average of Last 3 Years of Earnings through Age 62) by Nativity, Ages 50 to 61, Pooled 2004 and 2008
(every fifth percentile, except the highest



Source: Authors' tabulations from the Survey of Income and Program Participation matched to Numident and Summary Earnings Record.
N: 10,073 (native men), 10,699 (native women), 1,137 (foreign-born men), 1,122 (foreign-born women).

Table 1. Select Basic Demographic Characteristics of the Sample from the Pooled 1996, 2001, 2004, and 2008 SIPP that Has Nativity Information (Age 18 and Older), by Per Capita GDP of Country of Birth and Imputed Legal Status

			Foreign-born				
					Less developed		
	All	Native	All foreign-born	More developed	All	Authorized	Other
Gender							
Men	46.8	46.6	48.0	44.5	48.8	47.9	51.0
Women	53.2	53.4	52.0	55.5	51.2	52.1	49.0
Age in survey year							
18-34	30.2	29.4	35.1	24.3	38.0	30.2	58.8
35-54	39.7	39.3	42.3	40.0	43.6	47.5	33.2
55-64	13.2	13.6	10.9	14.7	9.8	11.9	4.6
65+	16.9	17.7	11.7	21.1	8.5	10.4	3.4
Completed education							
Less than high school	16.3	13.9	31.6	12.9	37.8	32.7	51.6
High school graduate	28.3	29.2	22.1	24.3	21.2	20.9	22.2
Some college / post high school training	32.3	33.9	22.2	28.3	20.3	22.6	13.8
College graduate	15.2	15.3	14.9	19.6	13.4	15.4	8.0
Advanced degree	7.9	7.7	9.3	14.9	7.4	8.5	4.4
Race							
White	81.6	84.0	66.0	73.6	62.9	57.8	77.0
Black	12.2	12.6	8.9	4.6	10.5	11.4	7.8
Asian (includes Pacific Islander in 1996, 2001)	3.8	0.9	22.9	20.4	24.1	28.2	12.9
Other (includes Pacific Islander in 2004, 2008)	2.5	2.6	2.3	1.5	2.5	2.6	2.3
Ethnicity							
Non-Hispanic	89.8	94.2	61.0	98.9	47.8	54.4	30.3
Hispanic	10.2	5.8	39.0	1.1	52.2	45.6	69.7
Marital status							
Married (including spouse absent)	57.5	56.4	64.6	65.5	65.0	67.6	58.1
	percentages among married with non-missing spouse nativity						
Spouse is native-born	85.2	95.4	24.9	42.2	18.6	20.8	10.9
Spouse is foreign-born	14.8	4.6	75.1	57.8	81.4	79.2	89.1
Widowed	7.1	7.4	5.3	8.8	4.1	4.7	2.5
Divorced or separated	13.1	13.7	9.7	10.3	9.5	10.1	7.7
Never married	22.2	22.5	20.4	15.4	21.4	17.6	31.8
Number of children ever born							
Missing/unknown	6.6	6.4	8.5	5.8	5.2	4.6	1.5
			percentages among non-missing				
0	27.3	27.8	23.8	27.3	23.6	20.9	29.6
1	16.0	15.9	16.8	18.6	17.0	16.5	17.2
2	27.2	27.4	25.7	30.2	25.3	25.8	22.5
3	16.0	16.0	15.8	14.4	17.0	17.4	14.9
4 or more	13.5	13.2	15.9	10.3	18.7	19.5	15.6
Current household size							
1	14.7	15.6	8.8	14.8	6.5	7.2	4.7
2	33.5	35.1	22.9	35.6	18.4	20.1	14.0
3	19.2	19.1	19.7	20.0	19.5	20.1	18.3
4 or more	32.7	30.2	48.6	29.7	55.5	52.7	62.9
Emigrate or leave U.S. during SIPP panel?							
No	99.8	99.9	99.1	99.7	98.9	99.6	97.3
Yes	0.2	0.1	0.9	0.3	1.1	0.4	2.7
Matched to administrative earnings records?							
No	18.0	16.0	31.2	19.1	32.3	11.1	91.6
Yes	82.0	84.0	68.8	80.9	67.7	88.9	8.4
N Overall, not missing nativity	272,933	236,658	36,275	9,305	25,758	18,513	6,625

Source: Authors' tabulations from the Survey of Income and Program Participation matched to Numident and Summary Earnings Record.

Notes: Those born outside the U.S. to U.S. citizens are considered native born, as are those born in the Social Security area outside the 50 states and District of Columbia. Some with nativity information are missing region of birth (and thus development of one's region of birth).

Percentages may not add to 100 due to rounding.

Table 2. Marital Status for the Pooled 1996, 2001, 2004, and 2008 SIPP, by Age, Nativity, Per Capita GDP of Country of Birth, and Imputed Legal Status

			Foreign-born								
			All foreign-		More			Less developed			
	All	Native	born		developed		All	Authorized			Other
Age 25-34											
All married	56.1	54.5	63.9	*	62.8	#	64.9	67.1	x		61.7
Married spouse present	54.7	53.5	60.4		61.5		61.2	63.8			57.3
Married spouse absent	1.4	1.0	3.5		1.3		3.7	3.3			4.4
Widowed	0.2	0.2	0.3		0.3		0.3	0.3			0.4
Divorced	7.1	7.8	3.8	*	4.7	#	3.6	4.1	x		2.6
Separated	2.8	2.9	2.6		2.1		2.7	2.8			2.3
Never married	33.7	34.6	29.4	*	30.1		28.5	25.6	x		33.0
Age 35-44											
All married	67.4	65.8	75.7	*	78.6	#	75.3	+ 76.4	x		71.4
Married spouse present	66.1	65.0	72.1		76.7		71.3	73.5			64.4
Married spouse absent	1.3	0.8	3.6		1.9		4.0	2.9			7.0
Widowed	0.9	0.9	1.0		0.5		1.1	+ 1.1			1.2
Divorced	13.2	14.3	7.4	*	9.7	#	6.7	+ 7.0			5.8
Separated	3.4	3.3	4.0	*	1.8	#	4.6	+ 4.1	x		6.0
Never married	15.1	15.7	11.9	*	9.4	#	12.4	+ 11.5	x		15.7
Age 45-54											
All married	68.0	66.9	75.9	*	67.3	#	75.7	77.0	x		69.5
Married spouse present	66.8	66.1	72.2		66.4		71.6	74.1			61.5
Married spouse absent	1.2	0.8	3.7		0.9		4.1	2.9			8.0
Widowed	2.6	2.6	2.7		2.6		2.9	2.7			3.1
Divorced	16.8	17.7	10.2	*	17.5	#	9.3	+ 10.3			9.9
Separated	2.9	2.8	4.1	*	2.8		4.5	+ 3.6	x		6.3
Never married	9.7	10.0	7.1	*	9.8	#	7.5	+ 6.4	x		11.2
Age 55-64											
All married	69.2	68.8	72.1	*	69.0	#	71.2	69.2			66.3
Married spouse present	68.0	67.9	68.5		68.1		66.6	68.1			57.1
Married spouse absent	1.2	0.9	3.6		0.9		4.6	1.1			9.2
Widowed	7.5	7.4	8.3		7.4		8.5	7.5			10.8
Divorced	15.3	15.9	10.5	*	15.7		9.5	15.3			10.1
Separated	2.2	2.1	3.5	*	2.0		4.5	+ 2.2			5.7
Never married	5.8	5.8	5.7		5.8		6.4	5.8			7.0
N Ages 25-34	50,117	41,359	8,758		1,586		6,767	4,078			2,555
Ages 35-44	56,888	47,980	8,908		1,981		6,670	5,039			1,526
Ages 45-54	51,365	44,924	6,441		1,742		4,566	3,752			742
Ages 55-64	36,155	32,185	3,970		1,365		2,535	2,196			313
Total	194,525	166,448	28,077		6,674		20,538	15,065			5,136

Source: Authors' tabulations from the Survey of Income and Program Participation matched to Numident and Summary Earnings Record.

Notes: Percentages may not add to 100 due to rounding.

* indicates that means for foreign-born and nativediffer at the p<0.01 level.

# indicates that means for natives and foreign-born from more developed countries differ at the p<0.01 level.

+ indicates that means for the foreign-born from more developed and less developed countries differ at the p<0.01 level.

x indicates that means for the authorized and other than legal from LDCs differ at the p<0.01 level.

Table 3. Employment and Earnings Characteristics of the Overall Sample from the Pooled 1996, 2001, 2004, and 2008 SIPP that Has Nativity Information (Age 18 and Older), by Per Capita GDP of Country of Birth and Imputed Legal Status

			Foreign-born				
				More	Less developed		
	All	Native	All foreign	developed	All	Authorized	Other
Employment status (based on combined admin and self-reports)							
Worker	70.3	70.3	70.6	64.8	73.1	73.9	70.9
Non-worker	29.7	29.7	29.4	35.3	26.9	26.1	29.1
Occupation (among workers, based on self-reports)							
Missing/unknown	13.8	14.5	11.6	16.6	11.5	14.4	10.8
			percentages among non-missing				
Managerial	12.5	12.8	9.5	12.9	7.5	12.5	4.7
Professional	19.7	20.0	18.0	20.6	15.3	20.4	11.1
Sales	8.6	8.9	6.4	8.8	5.4	8.5	3.4
Clerical / administrative /support	11.3	11.8	8.0	12.0	7.4	11.8	4.7
Service	6.5	6.7	5.0	6.7	5.0	6.7	2.9
Production	27.9	26.9	35.3	26.6	39.2	27.3	45.2
Farm/forestry/fisheries	2.3	2.1	4.0	1.9	4.9	2.1	8.0
Repair	3.4	3.4	3.0	3.4	3.0	3.4	2.9
Construction/extraction	4.0	3.8	5.4	3.5	5.8	3.6	10.0
Operators	3.8	3.6	5.5	3.5	6.4	3.6	7.3
Usual hours worked per week (based on self-reports)							
0	36.3	36.3	36.2	43.5	33.1	32.8	34.1
1-19	9.6	9.6	9.5	8.8	9.9	9.5	11.2
20-24	3.7	3.7	3.7	3.1	3.9	3.8	4.1
25-29	4.1	4.0	4.4	3.3	4.9	4.7	5.7
30-34	4.0	4.0	4.1	3.5	4.4	4.3	4.7
35-39	5.9	5.8	6.7	5.6	7.3	7.0	8.2
40+	36.4	36.6	35.4	32.3	36.5	38.0	32.1
Earnings (based on combined admin and self-reports)							
0	29.7	29.7	29.4	35.3	26.9	26.1	29.1
<0.25 * average wage index	14.2	14.3	13.4	11.2	14.3	13.2	17.2
0.25-0.49 * average wage index	12.1	11.4	16.6	10.0	18.6	15.7	26.5
0.50-0.99 * average wage index	19.6	19.4	20.9	16.7	22.6	23.5	20.1
1.00-1.49 * average wage index	11.6	12.0	8.9	10.3	8.6	10.3	4.0
1.50-1.99 * average wage index	5.8	6.0	4.4	5.9	3.9	4.9	1.4
2.0+ * average wage index	7.0	7.1	6.5	10.7	5.1	6.4	1.7
Tenure on the current job (self-reported)							
Missing/unknown	41.0	40.8	42.1	48.3	39.7	38.6	42.8
0	5.9	5.8	6.5	4.3	7.1	6.4	8.7
1-4	25.5	25.1	28.4	23.9	29.9	28.2	34.2
5-9	11.3	11.2	11.8	10.3	12.5	13.5	9.9
10-14	6.0	6.1	5.2	5.2	5.3	6.5	2.3
15-19	4.0	4.2	3.0	3.7	2.9	3.5	1.1
20-24	2.7	2.9	1.6	2.1	1.4	1.8	0.5
25-29	1.8	1.9	0.8	1.1	0.7	0.9	0.2
30+	1.8	1.9	0.6	1.1	0.4	0.5	0.1
N Overall, not missing nativity	272,933	236,658	36,275	9,305	25,758	18,513	6,625

Source: Authors' tabulations from the Survey of Income and Program Participation matched to Numident, Detailed Earnings File, and Summary Earnings Record.

Notes: Those born outside the U.S. to U.S. citizens are considered native born. Some with nativity information are missing region of birth (and thus development of one's region of birth). Percentages may not add to 100 due to rounding.

Table 4. Occupational Distribution of the Sample Ages 20 to 64 from the Pooled 1996, 2001, 2004, and 2008 SIPP by Age, Per Capita GDP of Country of Birth, and Imputed Legal Status

			Foreign-born								
								Less developed			
	All	Native	All foreign-born		More developed		All		Authorized		Other
Age 20-34											
Missing	3.3	3.4	3.8		2.9		4.2	+	5.7	x	0.8
					Among non-missing						
Managerial	10.0	10.4	7.8	*	13.8		6.5	+	8.6	x	2.6
Professional	19.8	20.3	17.4	*	27.8	#	15.3	+	19.2	x	8.2
Sales	8.7	9.2	6.2	*	10.5		5.2	+	6.4	x	3.2
Clerical / administrative /support	11.2	11.8	8.3	*	10.0	#	7.8	+	9.7	x	4.6
Service	6.9	7.1	5.3	*	5.9	#	5.2		6.6	x	2.7
Production	29.2	28.2	35.4	*	22.5		38.4	+	33.7	x	46.8
Farm/forestry/fisheries	2.3	1.9	5.0	*	0.8	#	5.6	+	3.6	x	9.7
Repair	3.3	3.4	2.5	*	2.7		2.5		2.7		2.3
Construction/extraction	4.8	4.3	7.1	*	4.1	#	7.3	+	4.7	x	12.4
Operators	3.9	3.6	5.1	*	2.1	#	5.8	+	5.0	x	7.5
Age 35-49											
Missing	2.2	2.2	2.8	*	1.7		3.2	+	3.6		0.9
					Among non-missing						
Managerial	15.2	15.8	10.7	*	17.2		8.7	+	9.4	x	4.8
Professional	21.8	22.4	19.1	*	28.6	#	16.2	+	18.0	x	8.1
Sales	8.5	8.7	6.3	*	9.4		5.4	+	5.9	x	2.6
Clerical / administrative /support	9.5	10.0	6.7	*	8.2	#	6.1	+	6.5	x	3.9
Service	6.1	6.3	4.4	*	4.2	#	4.6		5.0	x	2.9
Production	24.7	23.0	34.8	*	22.7		38.5	+	36.6	x	47.1
Farm/forestry/fisheries	2.0	1.7	3.8	*	0.7		4.8	+	4.1	x	7.1
Repair	3.8	3.9	3.2	*	2.7	#	3.3		3.2		3.8
Construction/extraction	4.4	4.2	5.6	*	3.5		6.1	+	5.0	x	11.3
Operators	4.0	3.7	5.6	*	2.8		6.5	+	6.1	x	8.4
Age 50-64											
Missing	4.9	5.1	5.6		4.9		6.1		6.5		c
					Among non-missing						
Managerial	16.1	16.5	12.4	*	17.9		9.8	+	10.1		c
Professional	21.9	22.2	19.7	*	25.3	#	16.9	+	18.1		c
Sales	8.7	9.1	6.7	*	8.7		5.8	+	5.9		c
Clerical / administrative /support	10.5	11.1	7.4	*	9.5		6.4	+	7.0		c
Service	6.2	6.3	4.2	*	2.9	#	4.8		5.1		c
Production	24.2	22.8	35.2	*	24.7		40.4	+	39.1		c
Farm/forestry/fisheries	2.0	1.9	3.1	*	0.7		4.3	+	3.4		c
Repair	3.4	3.5	3.1		3.2		3.0		3.0		c
Construction/extraction	3.4	3.4	3.2		3.3		3.1		3.0		c
Operators	3.7	3.5	5.0	*	3.8		5.6		5.3		c
N Ages 20-34	64,831	57,214	8,960		1,675		6,906		4,495		2,262
Ages 35-49	75,192	61,577	10,164		2,421		7,535		6,082		1,321
Ages 50-64	44,734	38,230	4,827		1,557		3,208		2,851		320
Total	184,757	157,021	23,951		5,653		17,649		13,428		3,903

Source: Authors' tabulations from the Survey of Income and Program Participation matched to Numident and Summary Earnings Record.

Notes: Percentages may not add to 100 due to rounding.

c = number of cases to small to be reliably estimated.

* indicates that foreign-born and native means differ at the p<0.01 level.

# indicates that means for natives and foreign-born from more developed countries differ at the p<0.01 level.

+ indicates that means for the foreign-born from more developed and less developed countries differ at the p<0.01 level.

x indicates that means for the authorized and other than legal from LDCs differ at the p<0.01 level.

Table 5. Ratio of Immigrant to Native Employment Rates from the Pooled 1996, 2001, 2004, and 2008 SIPP, by Gender, Age, Per Capita GDP of Country of Birth, and Imputed Legal Status

						Less developed		
	All foreign-born		More developed		All		Authorized	Other
A. Men								
18-19	0.92	*	0.83	#	0.95		0.97	0.92
20-24	0.99		0.94	#	1.02		1.01	1.03
25-29	0.99		0.94	#	1.00	+	1.00	1.01
30-34	1.00		0.97		1.00		1.00	1.02
35-39	1.01		1.00		1.02		1.01	1.03
40-44	1.01		1.00		1.02		1.03	1.02
45-49	1.02		1.03		1.02		1.02	1.03
50-54	1.00		1.06		0.99		1.00	0.98
55-59	1.04		1.08		1.03		1.03	1.07
60-64	1.11	*	1.10		1.11		1.13	1.02
65-69	1.03		1.04		1.04		c	c
	15,837		3,830		12,007		8,366	3,428
B. Women								
18-19	0.78	*	1.03		0.73	+	0.91	0.78
20-24	0.78	*	0.86	#	0.77		0.88	x 0.64
25-29	0.78	*	0.86	#	0.78		0.90	x 0.61
30-34	0.84	*	0.91	#	0.84		0.93	x 0.63
35-39	0.86	*	0.86	#	0.86		0.93	x 0.64
40-44	0.93	*	0.93	#	0.93		0.97	x 0.79
45-49	0.91	*	0.92	#	0.91		0.92	0.85
50-54	0.93	*	0.95		0.93		0.95	x 0.73
55-59	0.92	*	0.96		0.91		0.94	x 0.73
60-64	0.90		0.96		0.88		0.94	x 0.40
65-69	0.86		1.01		0.76		c	c
N	16,616		4,250		12,366		8,920	3,259

Source: Authors' tabulations from the Survey of Income and Program Participation matched to Numident and Summary Earnings Record.

Notes: When SIPP and numident nativity and place of birth are contradictory, we use the Numident information except when the Numident report is ambiguous (unknown, missing, uninterpretable).

Those born outside the U.S. to U.S. citizens are considered native born, as are those born in Social Security area outside the 50 states and District of Columbia.

* indicates that foreign-born and native means differ at the p<0.01 level.

# indicates that means for natives and foreign-born from more developed countries differ at the p<0.01 level.

+ indicates that means for the foreign-born from more developed and less developed countries differ at the p<0.01 level.

x indicates that means for the authorized and other than legal from LDCs differ at the p<0.01 level.

c = not applicable, number of cases to small to be reliably estimated.

Table 6. Ratio of Immigrant to Native Average Hours Worked from the Pooled 1996, 2001, 2004, and 2008 SIPP, by Gender, Age, Per Capita GDP of Country of Birth, and Imputed Legal Status

					Less developed				
	All foreign-born		More developed		All		Authorized		Other
A. Men									
18-19	1.10		0.90		1.10	+	0.88	x	1.38
20-24	0.99		0.94		0.99		0.94		1.03
25-29	0.93	*	0.93	#	0.93		0.96	x	0.90
30-34	0.95		1.01		0.95		0.96		0.92
35-39	0.94	*	0.95	#	0.95		0.96		0.92
40-44	0.93	*	0.94		0.93		0.94		0.90
45-49	0.93		0.91		0.93		0.93		0.91
50-54	0.93	*	0.98		0.91		0.93		0.80
55-59	0.97		0.91		1.00		1.03		0.84
60-64	1.09		0.96		1.16		1.15		1.26
65-69	1.38	*	1.42	#	1.35		1.37		1.31
N	14,052		3,034		10,508		7,114		3,070
B. Women									
18-19	0.89	*	0.83		0.91		0.91	x	0.93
20-24	0.91	*	0.96	#	0.88		0.89	x	0.85
25-29	0.92	*	1.01	#	0.89	+	0.93	x	0.82
30-34	0.90	*	0.98	#	0.88	+	0.91	x	0.79
35-39	0.92	*	0.98	#	0.90		0.92	x	0.83
40-44	0.90	*	0.89	#	0.91		0.93	x	0.81
45-49	0.88	*	0.88	#	0.88		0.91	x	0.74
50-54	0.87	*	0.90	#	0.86		0.87	x	0.76
55-59	0.92		0.94		0.90		0.90	x	0.94
60-64	0.94	*	0.89		0.97		0.96		1.17
65-69	1.08		0.92		1.25		1.22		c
N	11,302		2,849		8,197		6,243		1,736

Source: Authors' tabulations from the Survey of Income and Program Participation matched to Numident and Summary Earnings Record.
Notes: When SIPP and numident nativity and place of birth are contradictory, we use the Numident information except when the Numident report is ambiguous (unknown, missing, uninterpretable).
Those born outside the U.S. to U.S. citizens are considered native born, as are those born in Social Security area outside the 50 states and District of Columbia.
* indicates that foreign-born and native means differ at the p<0.01 level.
# indicates that means for natives and foreign-born from more developed countries differ at the p<0.01 level.
+ indicates that means for the foreign-born from more developed and less developed countries differ at the p<0.01 level.
x indicates that means for the authorized and other than legal from LDCs differ at the p<0.01 level.

Table 7. Ratio of Immigrant to Native Workers' Annual Earnings Outcomes from the Pooled 1996, 2001, 2004, and 2008 SIPP, by Gender, Age, Per Capita GDP of Country of Birth, and Imputed Legal Status

	Mean									Median				
					Less developed							Less developed		
	All foreign-born		More developed		All		Authorized		Other	All foreign-born	More developed	All	Authorized	Other
A. Men														
18-19	1.42	*	0.97		1.46		1.58	x	2.27	1.77	0.98	1.83	2.19	3.72
20-24	0.96		1.00		0.92		0.94		0.82	1.05	0.99	1.04	1.04	0.99
25-29	0.92	*	1.01		0.87	+	0.93	x	0.66	0.81	1.02	0.78	0.86	0.59
30-34	0.86	*	1.02		0.79	+	0.83	x	0.54	0.78	1.02	0.74	0.80	0.51
35-39	0.87	*	1.03		0.77	+	0.83	x	0.47	0.79	1.03	0.73	0.78	0.44
40-44	0.87	*	1.03		0.75	+	0.81	x	0.47	0.74	1.02	0.67	0.71	0.41
45-49	0.79	*	1.03		0.69	+	0.75	x	0.43	0.73	1.02	0.65	0.68	0.38
50-54	0.79	*	1.03		0.64	+	0.67	x	0.32	0.67	1.02	0.59	0.65	0.43
55-59	0.92	*	1.05	#	0.64		0.68	x	0.36	0.70	1.02	0.61	0.67	0.40
60-64	1.03		1.04		0.84		0.86		0.49	0.90	1.02	0.86	0.90	0.64
65-69	1.01		1.04		0.96		c		c	1.65	1.05	1.70	c	c
N	14,052		3,034		10,508		7,114		3,070	14,052	3,034	10,508	7,114	3,070
B. Women														
18-19	1.18		0.97		1.22		1.07	x	0.79	1.28	0.97	1.43	2.53	1.67
20-24	1.06	*	0.99	#	1.03		0.97	x	0.65	1.06	0.99	1.05	1.04	0.79
25-29	1.03	*	1.01		0.95	+	0.92	x	0.49	0.92	1.01	0.86	0.91	0.57
30-34	0.98	*	1.02		0.88	+	0.88	x	0.53	0.87	1.01	0.78	0.87	0.46
35-39	0.92	*	1.02		0.84	+	0.86	x	0.54	0.82	1.01	0.75	0.81	0.50
40-44	0.88	*	1.01		0.83	+	0.81	x	0.43	0.75	1.01	0.70	0.74	0.47
45-49	0.82	*	1.01		0.75	+	0.80	x	0.48	0.71	1.01	0.66	0.72	0.45
50-54	0.85	*	1.02		0.78	+	0.90	x	0.49	0.70	1.01	0.64	0.67	0.49
55-59	0.95		1.02	#	0.82	+	0.87	x	0.98	0.81	1.02	0.69	0.81	0.48
60-64	0.95		1.02		0.89		c		c	0.84	1.02	0.81	0.84	c
65-69	1.14		1.04		0.99		c		c	1.34	1.04	1.16	c	c
N	11,302		2,849		8,197		6,243		1,736	11,302	2,849	8,197	6,243	1,736

Source: Authors' tabulations from the Survey of Income and Program Participation matched to Numident, Detailed Earnings Record, and Summary Earnings Record.

Notes: When SIPP and numident nativity and place of birth are contradictory, we use the Numident information except when the Numident report is ambiguous (unknown, missing, uninterpretable).

Those born outside the U.S. to U.S. citizens are considered native born, as are those born in Social Security area outside the 50 states and District of Coumbia.

c = not applicable, number of cases to small to be reliably estimated.

* indicates that foreign-born and native means differ at the p<0.01 level.

# indicates that means for natives and foreign-born from more developed countries differ at the p<0.01 level.

+ indicates that means for the foreign-born from more developed and less developed countries differ at the p<0.01 level.

x indicates that means for the authorized and other than legal from LDCs differ at the p<0.01 level.

Table 8. Ratio of Immigrants to Native Workers' Fraction with Earnings over the Taxable Maximum from the Pooled 1996, 2001, 2004, and 2008 SIPP, by Gender, Per Capita GDP of Country of Birth, Imputed Legal Status, and Age

	All foreign-born		More developed		Less developed				
					All		Authorized		Other
A. Men									
25-29	1.13		2.58		0.96	+	1.36	x	0.54
30-34	0.81		1.93	#	0.60	+	0.81	x	0.24
35-39	0.79	*	1.74	#	0.60	+	0.76	x	0.18
40-44	0.80	*	1.61	#	0.58	+	0.65	x	0.30
45-49	0.77	*	1.47	#	0.53	+	0.60		0.26
50-54	0.81		1.73	#	0.44	+	0.51	x	0.03
55-59	0.70		1.12		0.52	+	0.60	x	c
60-64	1.09		1.75	#	0.73	+	0.80		0.13
N	12,008		2,667		8,961		6,459		2,353
B. Women									
25-29	1.73	*	3.64	#	1.18	+	1.19		1.30
30-34	1.19		2.46	#	0.77	+	0.95	x	0.17
35-39	1.19		2.45	#	0.84	+	0.95		0.44
40-44	1.05		1.58		0.90		1.05	x	0.13
45-49	0.96		1.33		0.82		0.98		0.12
50-54	1.19		1.67		0.93		1.01		c
55-59	1.34		2.42	#	0.71	+	0.79		c
60-64	c		c		c		c		c
N	9,911		2,518		7,185		5,673		1,397

Source: Authors' tabulations from the Survey of Income and Program Participation matched to Numident, Detailed Earnings Record, and Summary Earnings Record.
Notes: When SIPP and Numident nativity and place of birth are contradictory, we use the Numident information except when the Numident report is ambiguous (unknown, missing, uninterpretable).
Those born outside the U.S. to U.S. citizens are considered native born, as are those born in Social Security area outside the 50 U.S. states and District of Columbia.
c = number of cases to small to be reliably estimated.
* indicates that foreign-born and native means differ at the $p<0.01$ level.
# indicates that means for natives and foreign-born from more developed countries differ at the $p<0.01$ level.
+ indicates that means for the foreign-born from more developed and less developed countries differ at the $p<0.01$ level.
x indicates that means for the authorized and other than legal from LDCs differ at the $p<0.01$ level.

Table 9. Ratio of Immigrant to Native Lifetime Real Payroll Tax Contributions and Years with Earnings over the Taxable Maximum, by Gender, Nativity, Per Capita GDP of Country of Birth, and Age: Pooled 1996, 2001, 2004, and 2008 SIPP SER-Matched Sample Data

	Real lifetime payroll taxes									Years over taxable maximum					
	Mean						Median			Mean					
	All foreign		More developed		Less developed		All foreign	More developed	Less developed	All foreign		More developed		Less developed	
A. Men															
18-19	1.00		0.96		1.01		1.03	1.02	1.06	c		c		c	
20-24	0.88	*	0.88		0.87		0.80	0.72	0.85	c		c		c	
25-29	0.77	*	0.79	#	0.76		0.69	0.70	0.68	1.33		2.33	#	1.17	
30-34	0.71	*	0.80	#	0.68	+	0.65	0.75	0.63	1.03		1.85	#	0.79	+
35-39	0.67	*	0.77	#	0.64	+	0.60	0.69	0.58	0.81		1.64	#	0.59	+
40-44	0.62	*	0.72	#	0.59	+	0.53	0.67	0.50	0.71	*	1.29		0.53	+
45-49	0.62	*	0.78	#	0.56	+	0.49	0.72	0.46	0.61	*	1.20		0.40	+
50-54	0.61	*	0.79	#	0.53	+	0.47	0.70	0.43	0.56	*	1.20		0.29	
55-59	0.58	*	0.75	#	0.50	+	0.45	0.63	0.37	0.44	*	0.83		0.25	+
60-64	0.66	*	0.84	#	0.55	+	0.52	0.77	0.38	0.53	*	0.92		0.30	+
65-69	0.65	*	0.86	#	0.52	+	0.53	0.88	0.40	0.48	*	0.82		0.26	+
70-74	0.67	*	0.93		0.49	+	0.56	0.94	0.37	0.52	*	0.96		0.23	+
N	11,253		3,098		8,155		11,253	3,098	8,155	10,253		2,844		7,409	
B. Women															
18-19	1.10		0.99		1.15		0.93	1.04	0.91	c		c		c	
20-24	0.82	*	0.76	#	0.84		0.67	0.55	0.72	c		c		c	
25-29	0.68	*	0.79	#	0.65	+	0.57	0.64	0.53	1.50		4.50	#	1.00	+
30-34	0.63	*	0.73	#	0.60	+	0.46	0.56	0.43	0.90		1.60		0.70	+
35-39	0.61	*	0.76	#	0.56	+	0.42	0.56	0.39	1.00		1.81		0.76	+
40-44	0.60	*	0.73	#	0.56	+	0.42	0.58	0.38	0.92		1.36		0.75	
45-49	0.59	*	0.70	#	0.55	+	0.42	0.53	0.37	0.85		1.26		0.68	
50-54	0.59	*	0.68	#	0.55	+	0.43	0.60	0.38	0.84		1.36		0.64	
55-59	0.67	*	0.83	#	0.58	+	0.49	0.72	0.38	0.96		1.44		0.69	
60-64	0.63	*	0.71	#	0.57	+	0.45	0.52	0.35	0.63		0.85		0.49	
65-69	0.80	*	0.94	#	0.68	+	0.65	0.85	0.44	0.69		0.98		0.46	
70-74	0.68	*	0.90		0.48	+	0.51	0.86	0.24	0.54	*	0.96		0.15	+
N	12,340		3,677		8,663		12,340	3,677	8,663	11,360		3,431		7,929	

Source: Authors' tabulations from the Survey of Income and Program Participation matched to Deatiled Earnings Record, Numident, and Summary Earnings Record.

Notes: When SIPP and numident nativity and place of birth are contradictory, we use the Numident information except when the Numident report is ambiguous (unknown, missing, uninterpretable).

Those born outside the U.S. to U.S. citizens are considered native born, as are those born in the Social Security area outside the 50 states.

Payroll taxes are accumulated using a real disount rate of two percent.

c=not shown because of small numbers of cases.

* indicates that means for foreign-born and native individuals differ at the p<0.01 level.

# indicates that means for natives and foreign-born from more developed countries differ at the p<0.01 level.

+ indicates that means for the foreign-born from more developed and less developed countries differ at the p<0.01 level.

Table 10. Health of the Pooled 1996, 2001, 2004, and 2008 SIPP Sample, by Nativity, Per Capita GDP of Country of Birth, Imputed Legal Status, and Age

			Foreign-born								
			All foreign-		More			Less developed			
	All	Native	born		developed		All		Authorized		Other
Age 25-34											
Health status missing	12.4	11.5	16.6	*	11.6	#	14.4	+	11.8	x	16.6
					Among non-missing						
Excellent to good	93.5	93.2	94.8		96.0		94.5		94.9		94.0
Fair or poor	6.5	6.8	5.2	*	4.0	#	5.5		5.1		6.0
Age 35-44											
Health status missing	10.3	9.8	13.3	*	9.8	#	11.8		10.7	x	13.5
					Among non-missing						
Excellent to good	90.0	89.8	91.3		89.9		90.5		90.9		89.6
Fair or poor	10.0	10.2	8.7	*	10.1	#	9.5	+	9.1		10.4
Age 45-54											
Health status missing	9.8	9.5	12.2	*	9.8	#	11.6		10.6	x	14.0
					Among non-missing						
Excellent to good	83.8	83.8	83.9		88.6		82.0		82.4		79.8
Fair or poor	16.2	16.2	16.1		11.4	#	18.0	+	17.4		20.2
Age 55-64											
Health status missing	9.5	9.2	12.4	*	12.2	#	11.0		8.7		20.9
					Among non-missing						
Excellent to good	45.3	45.9	40.2		48.5		35.9		45.3		36.2
Fair or poor	47.2	46.6	51.9		44.1		55.9	+	47.1		55.0
N Ages 25-34	50,117	41,359	8,758		1,586		6,767		4,078		2,555
Ages 35-44	56,888	47,980	8,908		1,981		6,670		5,039		1,526
Ages 45-54	51,365	44,924	6,441		1,742		4,566		3,752		742
Ages 55-64	36,155	32,185	3,970		1,365		2,535		2,196		313
Total	194,525	166,448	28,077		6,674		20,538		15,065		5,136

Source: Authors' tabulations from the Survey of Income and Program Participation matched to Numident and Summary Earnings Record.

Notes: Percentages may not add to 100 due to rounding.

* indicates that means for foreign-born and native (among non-missing) differ at the p<0.01 level.

# indicates that means for natives and foreign-born from more developed countries differ at the p<0.01 level.

+ indicates that means for the more developed and less developed foreign born (among non-missing) differ at the p<0.01 level.

x indicates that means for the authorized and other than legal from LDCs (among non-missing) differ at the p<0.01 level.

Table 11. Net Worth of the Pooled 1996, 2001, 2004, and 2008 SIPP Sample, by Nativity, Per Capita GDP of Country of Birth, Imputed Legal Status, and Age

			Foreign-born									
					More				Less developed			
	All	Native	All foreign-born		developed		All		Authorized			Other
Age 25-34												
Missing	15.0	14.0	19.7	*	14.0	#	17.4	+	14.4	x		20.1
Among non-missing												
negative	20.9	21.7	17.4	*	16.2	#	17.7		18.9	x		15.9
0	4.0	3.4	7.0	*	2.6		8.1	+	4.9	x		13.5
<0.5 * average wage index	24.3	22.5	33.0	*	23.2		35.3	+	29.2	x		45.2
0.5-0.99 * average wage index	9.4	9.6	8.4	*	9.2		8.3		9.2	x		6.8
1.0-1.99 * average wage index	12.3	12.8	9.9	*	11.0		9.6		11.0	x		7.0
2.0-3.99 * average wage index	12.3	13.0	9.0	*	13.6		7.9	+	9.8	x		4.9
4.0-5.99 * average wage index	5.7	5.8	5.1		7.8	#	4.5	+	6.0	x		2.3
6+ * average wage index	11.1	11.3	10.1	*	16.3	#	8.7	+	11.2	x		4.3
Age 35-44												
Missing	12.6	12.0	15.9	*	12.1	#	14.4	+	13.1	x		16.3
Among non-missing												
negative	13.0	12.8	14.3	*	12.6	#	15.6	+	15.1			15.2
0	3.0	2.6	5.0	*	2.6		5.8	+	15.8	x		11.2
<0.5 * average wage index	16.8	15.3	25.0	*	15.3		27.7	+	20.9	x		41.6
0.5-0.99 * average wage index	7.9	8.1	7.1	*	8.0		7.2		6.8			8.8
1.0-1.99 * average wage index	11.5	11.8	9.9	*	11.7	#	10.0		11.3	x		5.9
2.0-3.99 * average wage index	15.5	16.1	12.2	*	16.0	#	11.7	+	13.0	x		7.5
4.0-5.99 * average wage index	9.4	9.8	7.3	*	9.8		6.4	+	7.0	x		3.9
6+ * average wage index	22.9	23.6	19.2	*	23.9	#	15.6		18.4	x		1.7
Age 45-54												
Missing	11.8	11.4	14.7	*	12.1	#	14.1		13.0			16.4
Among non-missing												
negative	9.5	9.2	11.9	*	6.5	#	14.0	+	13.4			17.1
0	2.5	2.2	4.6	*	2.0		5.5	+	4.3	x		11.2
<0.5 * average wage index	12.4	11.4	19.7	*	12.9		22.4	+	19.4	x		38.6
0.5-0.99 * average wage index	5.8	5.6	6.9	*	5.6		7.4	+	7.6	x		6.6
1.0-1.99 * average wage index	9.9	10.0	9.2		8.0	#	9.7		10.1			6.9
2.0-3.99 * average wage index	15.7	16.3	11.7	*	12.5	#	11.4		12.2	x		7.4
4.0-5.99 * average wage index	10.5	10.8	8.1	*	9.6		7.5		8.0	x		4.8
6+ * average wage index	33.7	34.5	27.9	*	42.8	#	22.1	+	24.8	x		7.3
Age 55-64												
Missing	11.1	10.7	14.7	*	13.8	#	13.5		12.3			17.6
Among non-missing												
negative	6.5	6.2	9.2	*	4.6		11.7	+	10.9	x		16.6
0	2.6	2.3	5.3	*	2.6		6.7	+	5.9	x		11.7
<0.5 * average wage index	10.6	9.9	16.2	*	10.0		19.5	+	18.9			25.2
0.5-0.99 * average wage index	5.3	5.2	6.0	*	5.2		6.5		6.5			6.6
1.0-1.99 * average wage index	8.6	8.7	8.3		6.3	#	9.4	+	9.4			9.3
2.0-3.99 * average wage index	14.4	14.5	12.8	*	12.7		12.9		13.3			10.1
4.0-5.99 * average wage index	10.8	11.1	8.6	*	9.4		8.1		9.9	x		3.4
6+ * average wage index	41.2	42.2	33.6	*	49.2	#	25.2	+	26.3	x		17.1
N Ages 25-34	50,117	41,359	8,758		1,586		6,767		4,078			2,555
Ages 35-44	56,888	47,980	8,908		1,981		6,670		5,039			1,526
Ages 45-54	51,365	44,924	6,441		1,742		4,566		3,752			742
Ages 55-64	36,155	32,185	3,970		1,365		2,535		2,196			313
Total	194,525	166,448	28,077		6,674		20,538		15,065			5,136

Source: Authors' tabulations from the Survey of Income and Program Participation matched to Numident and Summary Earnings Record.

Notes: Percentages may not add to 100 due to rounding.

* indicates that means for foreign-born and native (among non-missing) differ at the p<0.01 level.

# indicates that means for natives and foreign-born from more developed countries differ at the p<0.01 level.

+ indicates that means for the more developed and less developed foreign-born (among non-missing) differ at the p<0.01 level.

x indicates that means for the authorized and other than legal from LDCs (among non-missing) differ at the p<0.01 level.

Table 12. OLS Regression Coefficients from Models of Social Security Covered Work Years from 1951 to Select Ages, Pooled 1996, 2001, 2004, and 2008 SIPP Panels

	Age 60			Age 55			Age 50			Age 45			Age 40		
	1940-48 cohorts			1945-53 cohorts			1950-58 cohorts			1955-63 cohorts			1960-68 cohorts		
	Coeff		SE	Coeff		SE	Coeff		SE	Coeff		SE	Coeff		SE
A. Men															
Intercept	39.846	***	0.142	35.664	***	0.110	31.351	***	0.088	26.905	***	0.072	22.368	***	0.062
Indicator black	-2.505	***	0.257	-2.151	***	0.196	-1.869	***	0.155	-1.687	***	0.129	-1.294	***	0.112
Indicator Hispanicity	-1.010	***	0.277	-0.663	**	0.216	-0.710	***	0.169	-0.494	***	0.135	-0.150		0.110
Foreign-born indicator	-4.248	***	0.401	-4.234	***	0.312	-4.338	***	0.235	-3.870	***	0.189	-3.593	***	0.155
Number of years outside the U.S.	-0.458	***	0.013	-0.448	***	0.011	-0.406	***	0.009	-0.384	***	0.009	-0.359	***	0.008
Indicator education < hs	-3.837	***	0.217	-3.839	***	0.200	-3.536	***	0.168	-3.261	***	0.139	-2.887	***	0.125
Indicator 12 < education < 16	0.417	**	0.159	0.210		0.124	0.345	***	0.102	0.628	***	0.088	0.661	***	0.077
Indicator education = 16	0.414	*	0.181	0.526	***	0.138	0.353	**	0.117	0.615	***	0.101	0.708	***	0.086
Indicator education > 16	0.338		0.188	0.421	**	0.154	0.314	*	0.138	0.384	**	0.125	0.308	**	0.112
Foreign-born indicator * education < hs	0.600		0.506	1.950	***	0.413	2.167	***	0.327	2.017	***	0.269	2.610	***	0.226
Foreign-born indicator * col or more	-0.712		0.451	-0.943	**	0.350	-1.344	***	0.285	-1.721	***	0.234	-1.446	***	0.193
Indicator black * education < hs	1.295	**	0.483	0.800		0.423	-0.445		0.365	-1.516	***	0.329	-2.035	***	0.292
Indicator black * educ col or more	1.228	*	0.565	1.527	***	0.430	1.584	***	0.348	1.653	***	0.300	1.089	***	0.263
Indicator on disability at this age	1.526	***	0.246	0.312		0.245	-0.481		0.254	-1.005	***	0.263	-1.676	***	0.269
Disability years to this age	-0.759	***	0.020	-0.667	***	0.020	-0.582	***	0.019	-0.511	***	0.021	-0.478	***	0.025
Uncovered years from 1980 to this age	-0.982	***	0.019	-0.982	***	0.014	-0.962	***	0.013	-0.935	***	0.013	-0.944	***	0.015
Indicator uncovered in 1980 or 1981	-6.269	***	0.369	-3.656	***	0.275	-1.766	***	0.223	-0.826	***	0.182	0.221		0.173
Number of kids ever born	0.325	***	0.042	0.336	***	0.035	0.342	***	0.030	0.266	***	0.026	0.209	***	0.023
Indicator number of kids is missing	1.164	***	0.273	1.074	***	0.215	1.325	***	0.176	0.798	***	0.145	0.589	***	0.123
N	14,228			17,410			19,980			21,449			20,262		
Adjusted R-squared	0.5798			0.5794			0.5311			0.4898			0.476		
B. Women															
Intercept	32.689	***	0.226	31.500	***	0.169	28.978	***	0.134	25.568	***	0.110	21.505	***	0.096
Indicator black	2.249	***	0.325	1.833	***	0.236	0.402	*	0.183	-0.042		0.146	-0.203		0.123
Indicator Hispanicity	0.246		0.380	-0.197		0.284	-0.323		0.215	-0.270		0.164	-0.593	***	0.131
Foreign-born indicator	-3.917	***	0.660	-5.206	***	0.521	-4.909	***	0.401	-4.657	***	0.316	-4.064	***	0.254
Number of years outside the U.S.	-0.324	***	0.018	-0.382	***	0.015	-0.392	***	0.013	-0.388	***	0.012	-0.396	***	0.011
Indicator education < hs	-7.615	***	0.486	-8.192	***	0.408	-7.094	***	0.334	-5.583	***	0.273	-4.600	***	0.239
Indicator 12 < education < 16	2.250	***	0.217	1.927	***	0.162	1.650	***	0.128	1.438	***	0.105	1.200	***	0.091
Indicator education = 16	2.017	***	0.398	1.578	***	0.280	1.365	***	0.214	1.198	***	0.177	0.971	***	0.148
Indicator education > 16	3.952	***	0.397	3.249	***	0.285	2.348	***	0.231	1.794	***	0.203	1.529	***	0.174
Foreign-born indicator * education < hs	2.558	***	0.686	4.663	***	0.541	4.682	***	0.426	3.440	***	0.344	3.060	***	0.293
Foreign-born indicator * col or more	-1.298		0.713	-1.258	*	0.514	-1.364	***	0.386	-1.292	***	0.304	-1.143	***	0.247
Indicator black * education < hs	-1.509	*	0.626	-1.435	**	0.531	-0.406		0.441	-0.574		0.363	-0.770	*	0.323
Indicator black * educ col or more	0.726		0.721	0.285		0.506	1.148	**	0.384	1.180	***	0.323	0.738	**	0.278
Indicator on disability at this age	4.352	***	0.395	2.140	***	0.345	0.999	**	0.335	0.196		0.321	0.706	*	0.329
Disability years to this age	-0.584	***	0.037	-0.591	***	0.032	-0.579	***	0.031	-0.529	***	0.032	-0.564	***	0.034
Uncovered years from 1980 to this age	-0.919	***	0.025	-0.910	***	0.019	-0.886	***	0.017	-0.879	***	0.016	-0.876	***	0.018
Indicator uncovered in 1980 or 1981	-2.404	***	0.443	-1.998	***	0.336	-1.557	***	0.278	-0.584	**	0.214	0.219		0.200
Number of kids ever born	-1.474	***	0.075	-1.599	***	0.062	-1.456	***	0.050	-1.256	***	0.042	-1.004	***	0.037
Indicator number of kids is missing	-2.993	***	0.419	-2.972	***	0.307	-2.494	***	0.244	-2.489	***	0.201	-1.838	***	0.172
Foreign-born indicator * number of kids	0.290		0.183	0.617	***	0.152	0.537	***	0.121	0.397	***	0.099	0.335	***	0.085
Foreign-born * number of kids missing	7.742	***	1.383	8.509	***	0.957	7.523	***	0.755	6.835	***	0.578	5.962	***	0.454
Number kids ever born * education < hs	0.369	**	0.137	0.476	***	0.126	0.272	*	0.107	0.070		0.088	-0.018		0.078
Number kids ever born * ed col or more	0.002		0.147	0.303	**	0.111	0.381	***	0.088	0.316	***	0.075	0.293	***	0.064
N	15,825			19,360			22,190			23,637			22,093		
Adjusted R-squared	0.2851			0.3481			0.3702			0.3741			0.3819		

Source: Authors' tabulations from the Survey of Income and Program Participation matched to Detailed Earnings Record, Master Beneficiary Record, Numident, and Summary Earnings Record

Notes: *** indicates p<0.001; ** indicates p<0.01; * indicates p<0.05

Table 13. Joint Social Security and SSI Beneficiary Status and Benefit Levels for Individuals Ages 65 and Older, by Nativity, Per Capita GDP of Country of Origin, and Gender, Pooled 1996, 2001, 2004, and 2008 SIPP Panels

				Foreign-born		
		All[1]	Native	All[2]	More developed	Less developed
		Percent				
Men						
	Non-beneficiary	4.8	4.1	11.5	7.0	14.9
	None, working	1.8	1.5	5.1	3.5	6.2
	None, not working	3.0	2.6	6.4	3.5	8.7
	OASDI only	91.7	93.7	70.8	82.6	61.9
	Both OASDI and SSI	2.3	1.9	6.7	1.9	10.2
	SSI only	1.3	0.3	11.1	8.5	12.9
		100.0	100.0	100.0	100.0	100.0
		Average benefit (as a fraction of Average Wage Index) among recipients				
	OASDI	0.33	0.35	0.31	0.36	0.26
	SSI (all)	0.11	0.09	0.12	0.14	0.11
	SSI only	0.16	0.17	0.15	0.16	0.15
	OASDI and SSI	0.07	0.08	0.06	0.06	0.06
		Percent				
Women						
	Non-beneficiary	7.5	7.2	11.6	7.9	14.9
	None, working	1.3	1.3	1.9	1.8	2.0
	None, not working	6.2	5.9	9.7	6.1	12.9
	OASDI only	85.5	87.4	66.3	81.5	51.5
	Both OASDI and SSI	4.3	4.1	6.8	2.3	11.3
	SSI only	2.7	1.4	15.4	8.3	22.3
		100.0	100.0	100.0	100.0	100.0
		Average benefit (as a fraction of Average Wage Index) among recipients				
	OASDI	0.24	0.26	0.23	0.26	0.20
	SSI (all)	0.10	0.08	0.14	0.15	0.13
	SSI only	0.16	0.15	0.17	0.17	0.17
	OASDI and SSI	0.07	0.06	0.08	0.06	0.08
N (All)		48,425	41,981	4,227	1,959	2,189

Source: Authors' tabulations from the Survey of Income and Program Participation matched to Numident, Master Beneficiary Record, Supplemental Security Record, and Summary Earnings Record.
Notes: Those born outside the U.S. to U.S. citizens are considered native born, as are those who are born in the Social Security Area outside the 50 states.
Some with nativity information are missing region of birth (and thus development of one's region of birth).
Percentages may not add to 100 due to rounding.

[1] Includes 2,217 cases missing nativity.

[2] Includes 79 cases missing country of origin.

Table 14. Social Security Claiming Ages for Individuals Ages 60 and Older, By Nativity, Per Capita GDP of Country of Origin, and Gender, Pooled 1996, 2001, 2004, and 2008 SIPP Panels

			Foreign-born		
		Native	All foreign-born	More developed	Less developed
A. Men					
60-61		6.7	4.4	5.7	3.4
62		43.3	29.1	27.6	30.4
63		8.2	7.4	6.9	7.8
64		22.5	27.0	31.7	23.0
65		15.5	20.5	18.3	22.1
66		2.0	4.5	4.0	4.9
67		0.6	1.8	1.6	1.9
68-69		0.9	3.0	2.5	3.4
70-74		0.3	2.4	1.6	3.0
	N	18,768	1,467	671	795
B. Women					
60-61		11.3	9.4	10.6	8.0
62		47.5	40.9	42.8	38.7
63		7.6	7.9	7.2	8.7
64		17.4	19.6	20.6	18.4
65		11.0	12.8	11.2	14.6
66		1.9	3.7	2.4	5.2
67		0.9	1.2	1.1	1.3
68-69		1.2	2.9	2.7	3.0
70-74		1.2	1.7	1.4	2.0
	N	23,949	1,957	1,060	897

Source: Authors' tabulations from the Survey of Income and Program Participation matched to Numident, Summary Earnings Record, and Master Beneficiary Record.
Notes: When SIPP and numident nativity and place of birth are contradictory, we use the Numident information except when the Numident report is ambiguous (unknown, missing, uninterpretable).
Those born outside the U.S. to U.S. citizens are considered native born, as are those born in Social Security area outside the 50 states.
Sample is restricted to claimants observed on the administrative files.
Does not include individuals who claim for the first time at ages 75 and higher or receive some disabled worker benefits prior to age 60 and subsequently convert to retirement benefits.
Percentages may not add to 100 due to rounding.

Table 15. Winners (Based on Individual Worker Benefits) under the Policy Options to Improve Social Security Adequacy, Assuming Implementation in Year Individual Reaches Age 62, for Beneficiaries and Near-Beneficiaries in the 1943 to 1952 Birth Cohorts

		Option		
	Overall beneficiary population	Minimum based on special minimum work years definition	Less generous minimum based on covered quarters	More generous minimum based on covered quarters
Percent with higher benefits under the options	n/a	1.0%	12.3%	18.3%
Average size of gain among winners	n/a	9.5%	18.2%	23.0%
	Among all		*Among winners*	
Percentage distribution by nativity				
Native-born	91.0	94.5	94.1	92.5
Foreign-born	9.0	5.5	5.9	7.5
			Among all	
Average annualized benefit as a fraction of poverty by nativity				
Native-born	1.53	1.54	1.56	1.59
Foreign-born	1.27	1.28	1.29	1.32
			Among all	
Fraction with benefit of less than poverty by nativity				
Native-born	0.24	0.24	0.20	0.16
Foreign-born	0.41	0.41	0.39	0.34
N		32,760		

Source: Authors' tabulations from the 1996, 2001, 2004, and 2008 SIPP.
Notes: Less generous minimum benefit starts with 60 percent of poverty at 20 years increasing to 120 percent with 40 years. More generous minimum benefit starts with 80 percent of poverty at 20 years increasing to 120 percent with 40 years. Special minimum grants up to 125 percent of poverty with 30 work years, but with more stringent work requirements and no credit for partial years.

Table 16. Comparisons of Current Law to Option Benefits Using Prorating for Duration of Residence in the U.S. for Foreign-Born Beneficiaries and Near-Beneficiaries in the 1943 to 1952 Birth Cohorts

	All foreign-born	More developed	Less developed
Ratio of option benefit to current law benefit			
90th percentile	1.01	1.01	1.00
75th percentile	1.00	1.00	1.00
50th percentile	0.95	0.98	0.94
25th percentile	0.75	0.78	0.74
10th percentile	0.52	0.51	0.53
Average annualized benefit as a fraction of poverty by nativity			
Current law	1.27	1.44	1.18
With option	1.11	1.27	1.02
Fraction with benefit of less than poverty by nativity			
Current law	0.41	0.30	0.47
With option	0.53	0.42	0.58
N	2,943	1,029	1,913

Source: Authors' tabulations from the 1996, 2001, 2004, and 2008 SIPP.

Appendix

Appendix Table 1. Fraction with SER Matches for Workers Ages 18 and Older, by Gender, Nativity, and Age: 1996, 2001, 2004, and 2008 SIPP Panels

	Native	Foreign-born	Ratio foreign to native	
A. Men				
18-19	0.816	0.531	0.651	*
20-24	0.800	0.455	0.569	*
25-29	0.806	0.521	0.646	*
30-34	0.829	0.605	0.730	*
35-39	0.830	0.664	0.800	*
40-44	0.840	0.726	0.864	*
45-49	0.843	0.750	0.890	*
50-54	0.853	0.792	0.928	*
55-59	0.873	0.790	0.905	*
60-64	0.874	0.817	0.935	*
65-69	0.892	0.839	0.941	
N	81,806	14,052		
B. Women				
18-19	0.836	0.651	0.779	*
20-24	0.812	0.613	0.755	*
25-29	0.832	0.653	0.785	*
30-34	0.840	0.705	0.839	*
35-39	0.842	0.745	0.885	*
40-44	0.855	0.756	0.884	*
45-49	0.857	0.769	0.897	*
50-54	0.860	0.814	0.947	*
55-59	0.873	0.789	0.904	*
60-64	0.882	0.837	0.949	*
65-69	0.889	0.822	0.925	*
N	81,029	11,302		

Source: Authors' estimates from pooled SIPP matched to Numident and Summary Earnings Record.
* indicates that foreign-born and native means differ at the $p<0.01$ level.

Appendix Table 2. Determinants of a Match to the SER for Adults Ages 18 and Older: Logistic Regression Coefficients from the 1996, 2001, 2004, and 2008 SIPP panels

	Coeff	sig	SE
Intercept	0.1186	*	0.0512
Age	0.0259	***	0.00228
Age squared	-0.00021	***	0.000025
Indicator black	-0.2787	***	0.0248
Indicator foreign born	-0.5336	***	0.0288
Indicator from Mexico or Central America	-0.5209	***	0.0315
Indicator arrived in US within 5 years	-0.7243	***	0.039
Indicator unmarried	-0.1364	***	0.0124
Indicator education is less than high school	-0.0678	**	0.0216
Indicator education is some college	0.1449	***	0.0174
Indicator education is college graduate	0.1392	***	0.02
Indicator education is postgraduate	0.2031	***	0.0268
Indicator foreign born * less than high school education	-0.0554		0.0393
Indicator foreign born * some college education	0.1889	***	0.0438
Indicator foreign born * college graduate	0.0634		0.0467
Indicator foreign born * postgraduate education	0.2111	***	0.0594
Indicator black * less than high school education	0.2000	***	0.0438
Indicator black * some college education	0.0509		0.0416
Indicator black * college graduate or more	-0.0587		0.0502
Self reports never having worked for pay	-0.4697	***	0.0311
Self reports never having worked for pay * foreign born	-0.1064	*	0.0519
Indicator from Mexico or Central America * arrived in last 5 years	-0.8388	***	0.0613
Indicator 1996 SIPP panel	1.2682	***	0.0154
Indicator 2004 SIPP panel	1.0207	***	0.0142
Indicator 2008 SIPP panel	1.9768	***	0.0177
N	254,485		
Number with a match to SER	211,461		
Number without a match to SER	43,024		
Match rate	83.09%		
Number of regressors	24		
Ratio of regressors / N	10,603.5		

Source: Authors' tabulations from the Survey of Income and Program Participation matched to Numident and Summary Earnings Record.
Notes: *** indicates p<0.001; ** indicates p<0.01; * indicates p<0.05

Appendix Table 3. Select Demographic Characteristics of the Sample (Age 18 and Older), by SIPP Panel

		SIPP Panel			
	All Panels	1996	2001	2004	2008
Gender					
Men	46.8	46.3	47.0	46.9	47.0
Women	53.2	53.7	53.0	53.1	53.0
Nativity (combined admin and self reports)					
		percentages among non-missing			
Foreign-born (except abroad to U.S. citizen parents)	13.3	11.6	13.7	12.9	14.9
Native-born	86.7	88.4	86.3	87.1	85.1
Place of birth among natives		*percentages among natives (not all)*			
One of the 50 states	99.2	99.1	99.2	99.2	99.2
Social Security Area outside U.S. (U.S. territory, but not one of the 50 states)	0.8	0.9	0.8	0.8	0.7
Outside the U.S. to U.S. citizen parents	0.0	not avail	not avail	0.1	0.1
		percentages among all			
Missing/unknown	4.9	1.9	20.0	.	.
Age in survey year					
18-34	30.3	32.7	31.2	29.7	28.3
35-54	39.6	39.7	40.7	40.1	38.3
55-64	13.1	10.9	11.8	13.5	15.8
65+	16.9	16.7	16.4	16.7	17.6
Completed education					
Less than high school	16.4	19.5	17.8	15.4	13.5
High school graduate	28.5	31.7	30.9	26.1	26.0
Some college / post high school training	32.1	28.5	29.0	35.2	34.6
College graduate	15.2	13.6	14.9	15.3	16.8
Advanced degree	7.9	6.6	7.5	8.0	9.2
Race					
White	81.6	83.2	82.1	81.1	80.1
Black	12.2	12.4	12.7	11.8	11.9
Asian (includes Pacific Islander in 1996, 2001)	3.8	3.4	3.9	3.5	4.4
Other (includes Pacific Islander in 2004, 2008)	2.5	1.1	1.2	3.5	3.6
Ethnicity					
Hispanic	10.3	9.8	11.6	9.2	10.9
Non-Hispanic	89.7	90.2	88.4	90.8	89.1
Marital status					
Married (including spouse absent)	57.4	58.4	57.7	57.2	56.5
Widowed	7.1	7.9	7.0	7.1	6.7
Divorced or separated	13.1	13.0	12.9	13.4	13.1
Never married	22.3	20.7	22.4	22.4	23.7
Number of children ever born					
Missing/unknown	11.2	7.3	21.5	8.7	8.7
		percentages among non-missing			
0	27.3	27.6	26.9	26.8	27.9
1	16.0	16.1	15.9	16.0	16.0
2	27.2	26.3	27.3	27.5	27.5
3	16.0	15.6	16.3	16.1	15.9
4 or more	13.5	14.4	13.6	13.6	12.7
Current household size					
1	14.7	14.3	14.4	14.8	15.3
2	33.5	32.5	33.1	33.6	34.4
3	19.2	19.4	19.6	19.1	18.6
4 or more	32.6	33.7	32.9	32.4	31.7
Emigrate during SIPP panel?					
No	99.8	99.8	99.8	99.8	99.8
Yes	0.2	0.2	0.2	0.2	0.2
Matched to administrative earnings records?					
No	22.0	14.8	47.7	20.2	8.8
Yes	78.0	85.2	52.3	79.8	91.2
N Overall	287,086	66,936	64,200	79,380	76,570
Missing nativity	14,153	1,303	12,850	.	.
Native-born	236,658	58,042	44,305	69,169	65,142
Foreign-born	36,275	7,591	7,045	10,211	11,428

Source: Authors' tabulations from the Survey of Income and Program Participation matched to Numident and Summary Earnings Record.
Notes: Percentages may not add to 100 due to rounding.

Appendix Table 4. Employment and Earnings Characteristics of the Overall Sample (Age 18 and Older), by SIPP Panel

	All Panels	SIPP Panel 1996	2001	2004	2008
Employment status (based on combined admin and self-reports)					
Worker	70.1	70.1	70.6	70.3	69.5
Non-worker	29.9	29.9	29.4	29.7	30.5
Occupation (among workers, based on self-reports)					
Missing/unknown	13.8	19.0	6.4	14.4	7.3
			percentages among non-missing		
Managerial	12.4	12.7	14.2	11.3	12.2
Professional	19.6	17.3	19.0	21.0	22.3
Sales	8.6	8.7	8.7	8.6	8.2
Clerical / administrative /support	11.3	11.1	9.2	12.4	11.6
Service	6.5	6.7	7.4	6.1	5.8
Production	28.0	28.8	27.9	27.7	27.5
Farm/forestry/fisheries	2.4	2.5	2.1	2.3	2.6
Repair	3.4	3.5	3.1	3.4	3.3
Construction/extraction	4.0	3.8	4.1	4.1	4.0
Operators	3.8	5.0	4.3	3.0	2.5
Usual hours worked per week (based on self-reports)					
0	36.4	34.9	34.3	36.6	39.2
1-19	9.4	7.8	7.7	10.1	11.3
20-24	3.7	3.2	3.3	3.8	4.2
25-29	4.0	3.7	3.2	4.2	4.6
30-34	4.0	3.4	3.7	4.3	4.4
35-39	5.8	5.7	5.6	5.8	6.0
40+	36.9	41.3	42.2	35.2	30.3
Earnings (based on combined admin and self-reports)					
0	29.9	29.9	29.4	29.7	30.5
<0.25 * average wage index	13.9	13.7	12.2	13.9	15.7
0.25-0.49 * average wage index	12.1	11.5	12.5	12.1	12.4
0.50-0.99 * average wage index	19.7	19.1	21.7	19.9	18.5
1.00-1.49 * average wage index	11.6	12.0	12.2	11.6	10.6
1.50-1.99 * average wage index	5.8	6.4	5.5	5.7	5.4
2.0+ * average wage index	7.0	7.5	6.4	7.1	6.9
Tenure on the current job (self-reported)					
Missing/unknown	41.0	40.9	39.6	41.1	42.0
0	5.8	6.2	2.8	2.9	10.8
1-4	25.8	25.0	30.5	27.8	20.4
5-9	11.2	11.6	10.6	11.8	10.8
10-14	6.0	6.1	6.3	5.8	5.9
15-19	4.0	4.4	3.9	4.2	3.5
20-24	2.7	2.7	2.8	2.6	2.8
25-29	1.8	1.7	1.8	1.9	1.7
30+	1.7	1.4	1.6	1.9	2.1
N Overall	287,086	66,936	64,200	79,380	76,570

Source: Authors' tabulations from the Survey of Income and Program Participation matched to Numident and Summary Earnings Record.

Notes: Percentages may not add to 100 due to rounding.

Appendix Table 5. Social Security Payroll Tax and Benefit Experience of the Overall Sample (Age 18 and Older), by SIPP Panel

	All Panels	SIPP Panel 1996	2001	2004	2008
Years in OASDI-covered employment from 1951 to current age					
missing (nonmatch)	22.0	14.8	47.7	20.2	8.8
		percentages among non-missing			
0	2.4	3.0	2.4	2.0	2.2
1-4	7.5	8.4	7.8	6.2	7.7
5-9	12.6	14.3	13.8	11.9	11.4
10-14	13.2	15.2	14.0	12.3	12.0
15-19	13.0	14.3	13.3	13.3	11.6
20-24	12.6	13.5	12.5	12.4	12.1
25-29	11.5	11.4	11.7	12.3	10.7
30-34	10.0	8.7	9.8	10.9	10.4
35-39	7.9	5.9	7.1	8.7	9.3
40-44	5.5	4.2	4.6	5.7	6.9
45+	3.8	1.2	3.0	4.5	5.8
Years with covered earnings over the taxable maximum from 1951 to current age					
missing (nonmatch)	22.0	14.8	47.7	20.2	8.8
		percentages among non-missing			
0	80.3	78.9	80.8	80.1	81.5
1-2	4.9	5.2	4.8	5.1	4.6
3-4	2.5	2.6	2.4	2.5	2.3
5-6	1.8	1.7	1.8	1.8	1.7
7-8	1.4	1.5	1.4	1.5	1.3
9-10	1.2	1.3	1.1	1.2	1.2
11+	7.9	8.8	7.6	7.9	7.4
Years in uncovered employment since 1980 to current age					
missing (nonmatch)	22.0	14.8	47.7	20.2	8.8
		percentages among non-missing			
0	86.9	88.5	87.1	86.5	85.9
1-2	6.8	6.1	6.9	6.9	7.3
3-4	2.0	1.7	1.9	2.1	2.1
5-6	1.0	0.9	0.9	1.1	1.0
7+	3.3	2.8	3.3	3.4	3.7
OASDI payroll taxes in 2008$ *(combined employer & employee shares)*, to current age					
missing (nonmatch)	22.0	14.8	47.7	20.2	8.8
		percentages among non-missing			
0	2.4	3.0	2.4	2.0	2.2
< 1,000	3.5	4.2	3.4	2.7	3.6
1,000-4,999	7.9	9.5	8.3	6.9	7.3
5,000-9,999	6.3	7.4	7.1	5.7	5.6
10,000-19,999	9.5	10.8	10.3	9.1	8.6
20,000-49,999	19.0	20.4	19.9	18.8	17.4
50,000-99,999	18.8	19.5	18.9	19.2	17.9
100,000-149,999	11.5	10.8	11.1	12.3	11.5
150,000-199,999	7.6	7.0	7.4	7.9	8.0
200,000+	13.6	7.4	11.3	15.4	18.0
Beneficiary status					
Neither OASDI nor SSI	72.2	72.4	74.3	71.2	71.3
Social Security (OASI or DI)	24.6	24.2	22.5	25.7	25.5
SSI	1.6	1.7	1.5	1.7	1.7
Both OASDI and SSI	1.6	1.8	1.7	1.5	1.6
Never received DI	95.3	95.7	96.3	94.9	94.7
Ever received DI	4.7	4.3	3.7	5.1	5.3
N Overall	287,086	66,936	64,200	79,380	76,570
Matched to SER	223,803	57,018	33,558	63,359	69,868

Source: Authors' tabulations from the Survey of Income and Program Participation matched to Numident, Summary Earnings Record, Supplemental Security Record, and Master Beneficiary Record.
Notes: OASDI payroll taxes are accumulated using a real interest rate of 2 percent.
Percentages may not add to 100 due to rounding.

Appendix Table 6. Health Status and Wealth of the Overall Sample (Age 18 and Older), by SIPP Panel

	All Panels	SIPP Panel 1996	2001	2004	2008
Self-reported health status					
Health missing	14.9	10.3	21.8	9.8	18.3
		Among non-missing			
Excellent	25.2	27.1	27.1	25.4	21.5
Very good	31.8	31.0	30.5	31.7	33.6
Good	27.1	25.6	26.3	26.8	29.7
Fair	11.2	11.1	11.0	11.1	11.5
Poor	4.7	5.2	5.0	5.0	3.7
Self-reported homeownership status					
Home missing	17.0	11.8	25.0	13.8	18.3
		Among non-missing			
No	30.7	32.2	31.3	28.9	30.9
Yes	69.3	67.8	68.7	71.1	69.1
Networth/average wage					
Missing	17.0	11.8	25.0	13.8	18.3
		Among non-missing			
negative	12.1	11.2	12.4	10.8	13.9
0	3.3	3.7	3.1	3.0	3.5
<0.5 * average wage index	16.4	17.8	17.2	15.4	15.6
0.5-0.99 * average wage index	6.8	7.9	7.4	6.2	5.9
1.0-1.99 * average wage index	10.2	11.7	10.6	10.0	8.9
2.0-3.99 * average wage index	14.7	16.3	14.9	14.4	13.3
4.0-5.99 * average wage index	9.3	9.4	9.1	9.6	8.9
6+ * average wage index	27.3	22.0	25.2	30.6	30.1
Total wealth/average wage					
Missing	17.0	11.8	25.0	13.8	18.3
		Among non-missing			
negative	4.5	3.7	5.2	3.7	5.6
0	4.0	4.4	3.9	3.7	4.2
<0.5 * average wage index	19.7	20.8	20.4	18.6	19.4
0.5-0.99 * average wage index	7.4	8.9	7.8	6.6	6.5
1.0-1.99 * average wage index	10.9	12.5	11.1	10.5	9.6
2.0-3.99 * average wage index	15.6	17.3	16.0	15.3	14.2
4.0-5.99 * average wage index	9.7	9.8	9.5	10.1	9.4
6+ * average wage index	28.1	22.6	25.9	31.5	31.1
Total home equity/average wage					
Missing	17.0	11.8	25.0	13.8	18.3
		Among non-missing			
negative	3.3	2.3	2.8	1.9	6.2
0	29.2	31.0	29.7	27.5	28.9
<0.5 * average wage index	7.8	7.5	8.4	7.4	7.9
0.5-0.99 * average wage index	8.0	9.0	8.7	8.0	6.6
1.0-1.99 * average wage index	14.0	15.6	14.5	13.8	12.2
2.0-3.99 * average wage index	17.7	19.2	18.3	17.4	16.1
4.0-5.99 * average wage index	9.0	7.9	8.3	10.0	9.6
6+ * average wage index	11.0	7.4	9.3	14.0	12.4
N Overall	287,086	66,936	64,200	79,380	76,570
Missing nativity	14,153	1,303	12,850	.	.
Native-born	236,658	58,042	44,305	69,169	65,142
Foreign-born	36,275	7,591	7,045	10,211	11,428

Source: Authors' tabulations from the Survey of Income and Program Participation matched to Numident and Summary Earnings Record.
Notes: Percentages may not add to 100 due to rounding.

Appendix Table 7. Characteristics of the Foreign-Born Sample (Ages 18 and Older), by SIPP Panel

		SIPP Panel			
	All Panels	1996	2001	2004	2008
Age arrived in the U.S.					
Missing/unknown	7.9	1.7	12.0	14.0	4.1
		percentages among non-missing			
0-15	14.2	17.4	15.4	13.8	11.7
16-20	15.5	17.7	17.4	15.1	13.3
21-25	16.8	17.6	18.5	16.7	15.5
26-30	15.2	15.5	16.1	14.8	14.8
31-35	11.1	10.5	10.8	11.0	11.8
36-40	7.9	6.9	7.3	7.9	8.8
41-45	5.7	4.6	5.0	6.1	6.6
46+	13.6	9.7	9.4	14.5	17.5
Year arrived in the U.S.					
Missing/unknown	25.5	21.4	25.3	36.9	18.1
		percentages among non-missing			
<=1969	14.3	23.0	16.7	16.4	6.4
1970s	14.1	21.5	17.6	14.8	7.2
1980s	22.7	33.2	22.7	17.4	19.9
1990s	28.9	22.4	38.7	35.4	23.3
2000+	20.0	n/a	4.3	16.1	43.2
Region of birth (best estimate)					
Missing/unknown	3.3	c	n/a	7.1	4.2
		percentages among non-missing			
Eastern Europe	6.4	6.3	6.6	6.4	6.4
Western Europe (include Australia, New Zealand, Japan)	11.9	15.5	12.6	11.7	9.0
Asia (excluding Japan)	25.7	25.4	25.1	25.3	26.5
Africa	3.2	1.8	3.3	3.4	3.9
Canada	2.8	3.4	3.1	2.7	2.3
Latin America, including Mexico	40.8	37.9	40.4	42.1	42.1
Carribean	9.2	9.6	8.8	8.4	9.8
Economic development of country of birth (defined by per capita GDP in 2009; see notes)					
Missing/unknown	3.3	c	.	7.0	4.1
		percentages among non-missing			
More developed	27.3	31.8	28.2	28.0	23.2
Less developed	72.7	68.2	71.8	72.0	76.8
Legal status (best estimate)					
Missing/unknown	1.7	5.1	1.9	0.8	c
		percentages among non-missing			
Naturalized	49.6	47.1	49.8	48.8	51.7
Permanent resident	25.9	33.5	22.7	23.7	25.1
Other	24.5	19.5	27.4	27.5	23.2
N	36,275	7,591	7,045	10,211	11,428
with SER match	24,964	5,722	3,980	6,815	8,447
without SER match	11,311	1,869	3,065	3,396	2,981

Source: Authors' tabulations from the Survey of Income and Program Participation matched to Numident and Summary Earnings Record.

Notes: When SIPP and Numident nativity and place of birth are contradictory, we use the Numident information except when the Numident report is ambiguous (unknown, missing, uninterpretable).

Those born outside the U.S. to U.S. citizens are considered native born, as are those born in Social Security area outside the 50 states.

Percentages may not add to 100 due to rounding.

c=too few cases to show

Appendix Table 8. Characteristics of the Foreign-Born Sample (Ages 18 and Older), by Per Capita GDP of Country of Origin

	All foreign	More-developed	Less-developed		
			All	Authorized	Other
Year arrived in the U.S.					
Missing/unknown	25.6	24.7	22.5	23.1	16.5
		Among non-missing			
<=1969	14.1	31.0	8.2	10.9	1.5
1970s	14.1	14.5	14.0	17.7	4.7
1980s	22.8	17.3	24.7	28.2	16.1
1990s	29.1	23.8	31.0	26.2	42.8
2000+	19.8	13.4	22.1	17.0	35.0
Age arrived in the U.S.					
Missing/unknown	8.0	4.6	4.9	2.3	12.2
		Among non-missing			
0-15	13.7	16.6	12.6	13.4	10.7
16-20	15.5	12.5	16.6	15.5	20.9
21-25	17.0	14.3	17.9	16.6	22.3
26-30	15.3	15.6	15.2	14.7	16.6
31-35	11.2	11.6	11.0	11.3	10.0
36-40	7.9	8.1	7.9	8.2	6.6
41-45	5.8	5.6	5.8	6.1	4.6
46+	13.7	15.7	12.9	14.1	8.4
Region of birth (best estimate)					
Eastern Europe	6.2	24.3	n/a	n/a	n/a
Western Europe (plus Australia, New Zealand, Japan)	11.5	44.7	n/a	n/a	n/a
Asia (excluding Japan)	24.8	17.1	28.7	33.5	5.7
Africa	3.1	n/a	4.3	4.9	2.8
Canada	2.7	10.6	n/a	n/a	n/a
Latin America, including Mexico	39.5	n/a	55.6	48.2	76.0
Carribean	8.9	3.2	11.3	13.5	15.5
Imputed legal status (best estimate)					
Missing/unknown	1.7	2.0	1.6	n/a	n/a
Naturalized	48.8	64.9	44.2	61.5	n/a
Permanent resident	25.4	22.6	27.7	38.5	n/a
Other	24.1	10.5	26.5	n/a	100.0
N	36,275	9,305	25,758	18,513	6,825

Source: Authors' tabulations from the Survey of Income and Program Participation matched to Numident and Summary Earnings Record.

Notes: When SIPP and numident nativity and place of birth are contradictory, we use the Numident information except when the Numident report is ambiguous (unknown, missing, uninterpretable).

Those born outside the U.S. to U.S. citizens are considered native-born, as are those born in Social Security Area outside the 50 states.

Percentages may not add to 100 due to rounding.

n/a = not applicable

Appendix Table 9. Ratio of Immigrant to Native Annual Earnings Means among Workers by Gender, Age, and Imputed Legal Status: Pooled 1996, 2001, 2004, and 2008 SIPP Data

	Naturalized	Permanent resident	Other
A. Men			
18-19	1.09	1.29	2.18
20-24	1.00	0.94	0.89
25-29	1.03	0.95	0.75
30-34	1.01	0.79	0.66
35-39	0.94	0.85	0.63
40-44	0.97	0.79	0.63
45-49	0.91	0.66	0.53
50-54	0.91	0.55	0.38
55-59	1.12	0.54	0.46
60-64	1.18	0.67	0.54
65-69	1.12	0.73	1.09
N	6,574	3,923	4,055
B. Women			
18-19	1.17	1.16	1.39
20-24	1.12	1.05	0.89
25-29	1.18	0.91	0.92
30-34	1.09	0.91	0.78
35-39	1.07	0.76	0.70
40-44	1.05	0.61	0.66
45-49	0.97	0.62	0.52
50-54	0.99	0.58	0.59
55-59	1.12	0.57	0.81
60-64	1.07	0.64	0.85
65-69	1.21	1.16	1.24
N	6,199	3,192	2,326

Source: Authors' tabulations from the Survey of Income and Program Participation matched to Numident, Detailed Earnings Record, and Summary Earnings Record.

Appendix Table 10. Social Security Payroll Tax and Benefit Experience of the Overall Sample from the Pooled 1996, 2001, 2004, and 2008 SIPP that Has Nativity Information (Age 18 and Older), by Per Capita GDP of Country of Birth

	All	Native	Foreign-born		
			All foreign	More developed	Less developed
Years in OASDI-covered employment from 1951 to current age					
missing (nonmatch)	18.0	16.0	31.2	19.1	32.3
		percentages among non-missing			
0	2.4	1.6	8.2	8.1	8.3
1-4	7.5	6.5	15.3	13.1	16.3
5-9	12.6	11.7	19.9	16.2	21.4
10-14	13.2	12.7	16.8	14.4	17.8
15-19	13.0	13.0	13.3	12.0	13.9
20-24	12.6	12.9	10.2	10.6	10.0
25-29	11.5	12.1	6.7	8.6	5.9
30-34	10.0	10.7	4.6	7.1	3.5
35-39	7.9	8.6	2.9	5.0	2.0
40-44	5.5	6.0	1.5	3.0	0.8
45+	3.8	4.2	0.7	1.8	0.3
Years with covered earnings over the taxable maximum from 1951 to current age					
missing (nonmatch)	18.0	16.0	31.2	19.1	32.3
		percentages among non-missing			
0	80.3	79.5	87.2	77.7	91.3
1-2	4.9	5.0	3.7	5.4	3.0
3-4	2.5	2.5	1.8	2.9	1.3
5-6	1.8	1.8	1.4	2.2	1.0
7-8	1.4	1.5	1.0	1.8	0.7
9-10	1.2	1.2	0.8	1.3	0.6
11+	7.9	8.4	4.1	8.8	2.0
Years in uncovered employment since 1980 to current age					
missing (nonmatch)	18.0	16.0	31.2	19.1	32.3
		percentages among non-missing			
0	86.9	86.6	89.5	88.1	90.1
1-2	6.8	6.9	6.0	6.4	5.8
3-4	2.0	1.9	2.1	2.5	1.9
5-6	1.0	1.0	0.9	1.1	0.8
7+	3.3	3.5	1.6	2.0	1.4
OASDI payroll taxes in 2008$ *(combined employer & employee shares)*, to current age					
missing (nonmatch)	18.0	16.0	31.2	19.1	32.3
		percentages among non-missing			
0	2.4	1.6	8.2	8.1	8.3
< 1,000	3.5	3.4	4.2	3.8	4.4
1,000-4,999	7.9	7.7	9.2	7.6	9.9
5,000-9,999	6.3	6.1	8.0	6.3	8.7
10,000-19,999	9.5	9.2	12.6	10.4	13.6
20,000-49,999	19.0	18.6	22.0	18.5	23.5
50,000-99,999	18.8	19.1	16.9	17.3	16.7
100,000-149,999	11.5	11.9	8.2	10.4	7.3
150,000-199,999	7.6	8.0	4.2	5.9	3.5
200,000+	13.6	14.5	6.4	11.6	4.2
Beneficiary status					
Neither OASDI nor SSI	72.2	69.8	84.4	74.4	87.6
Social Security (OASI or DI)	24.6	27.0	11.7	22.2	8.3
SSI	1.6	1.7	1.4	1.0	1.6
Both OASDI and SSI	1.6	1.5	2.5	2.5	2.6
Ever received DI	95.2	94.8	97.8	97.3	97.9
Never received DI	4.8	5.2	2.2	2.7	2.1
N Overall (nativity non-missing)	272,933	236,658	36,275	9,305	25,758
Not missing nativity and matched to SER	223,789	198,825	24,964	7,531	17,429

Source: Authors' tabulations from the Survey of Income and Program Participation matched to Numident, Master Beneficiary Record, and Summary Earnings Record.

Notes: Those born outside the U.S. to U.S. citizens are considered native born. Some with nativity information are missing region of birth (and thus development of one's region of birth). OASDI payroll taxes are accumulated using a real interest rate of 2 percent. Percentages may not add to 100 due to rounding.

Appendix Table 11. Health and Wealth Characteristics of the Pooled 1996, 2001, 2004, and 2008 SIPP Sample, by Gender, Nativity, Per Capita GDP of Country of Birth, and Imputed Legal Status

			Foreign-born				
				More	Less developed		
	All	Native	All foreign	developed	All	Authorized	Other
Self-reported health status							
Health missing	14.9	10.6	14.3	11.2	12.7	10.8	15.6
			Among non-missing				
Excellent	25.2	25.2	24.7	25.9	24.2	24.1	24.5
Very good	31.8	31.8	31.7	31.3	31.8	31.1	34.0
Good	27.1	26.8	29.4	28.0	29.9	29.8	30.2
Fair	11.2	11.3	10.2	9.9	10.4	11.0	8.5
Poor	4.7	4.8	4.0	4.9	3.7	3.9	2.7
Self-reported homeownership status							
Home missing	13.2	12.6	16.9	13.3	15.4	13.2	18.9
			Among non-missing				
No	30.5	28.1	46.5	33.3	50.0	41.8	71.8
Yes	69.5	72.0	53.5	66.7	50.0	58.2	28.2
Net worth/average wage							
Missing	13.2	12.6	16.9	13.3	15.4	13.2	18.9
			Among non-missing				
negative	12.0	11.8	13.3	8.4	15.1	15.0	15.7
0	3.3	2.9	6.3	3.0	7.4	5.4	13.3
<0.5 * AWI	16.4	15.1	25.2	16.1	28.5	23.7	42.5
0.5-0.99 * AWI	6.8	6.7	7.0	6.4	7.3	7.3	7.4
1.0-1.99 * AWI	10.2	10.4	9.0	8.2	9.4	10.4	6.4
2.0-3.99 * AWI	14.7	15.2	11.1	13.1	10.4	12.0	5.9
4.0-5.99 * AWI	9.3	9.6	7.1	9.7	6.2	7.4	3.0
6+ * AWI	27.3	28.2	20.9	35.1	15.7	19.1	5.9
Total wealth/average wage							
Missing	13.2	12.6	16.9	13.3	15.4	13.2	18.9
			Among non-missing				
negative	4.5	4.3	5.9	3.1	6.9	6.7	7.5
0	4.0	3.6	7.1	3.5	8.4	6.2	14.8
<0.5 * AWI	19.7	18.3	28.9	18.1	32.8	28.0	47.1
0.5-0.99 * AWI	7.4	7.4	7.7	6.9	8.0	7.9	8.0
1.0-1.99 * AWI	10.9	11.1	9.4	8.7	9.7	10.6	6.8
2.0-3.99 * AWI	15.6	16.2	11.9	13.7	11.3	13.0	6.4
4.0-5.99 * AWI	9.7	10.0	7.5	9.9	6.7	7.8	3.3
6+ * AWI	28.1	29.1	21.6	36.1	16.3	19.8	6.0
Total home equity/average wage							
Missing	13.2	12.6	16.9	13.3	15.4	13.2	18.9
			Among non-missing				
negative	3.3	3.3	3.9	2.7	4.3	5.0	2.6
0	29.1	26.9	44.6	32.5	48.9	41.2	71.1
<0.5 * AWI	7.8	8.0	6.0	4.5	6.5	6.6	6.7
0.5-0.99 * AWI	8.0	8.4	5.7	5.4	5.8	6.3	4.2
1.0-1.99 * AWI	14.0	14.7	9.5	9.2	9.8	11.4	5.1
2.0-3.99 * AWI	17.7	18.6	11.3	15.7	9.7	11.4	4.7
4.0-5.99 * AWI	9.0	9.3	7.5	10.8	6.3	7.5	3.0
6+ * AWI	11.0	10.9	11.4	19.2	8.6	10.6	2.8
N Overall	272,933	236,658	36,275	9,305	25,758	18,513	6,625

Source: Authors' tabulations from the Survey of Income and Program Participation matched to Numident and Summary Earnings Record.
Notes: Percentages may not add to 100 due to rounding.

Appendix Table 12A. Mortality Determinants for Adult Men Ages 25 and Older: Logistic Regression Coefficients from the 1996, 2001, 2004, and 2008 SIPP panels

	coefficient	sig	standard error
Intercept	-7.0776	***	0.7877
Age	0.1714	***	0.0418
Age squared	-0.00298	***	0.0007
Age cubed	0.00002	***	3.99E-06
Less than high school education	-0.081	*	0.0376
Some college education	-0.0417		0.0429
College graduate	-0.1657	**	0.0532
Postgraduate education	-0.3313	***	0.064
Foreign-born indicator	-0.3759	***	0.0648
Indicator new to US (immigrated within last 5 years)	-0.3605		0.2348
Indicator unmarried	0.2914	***	0.0315
Black indicator	0.0602		0.0461
Asian indicator	-0.389	***	0.1118
Hispanic indicator	-0.0834		0.0701
Indicator worked last year	-2.4209	***	0.1945
Indicator worked last year * age	0.0293	***	0.0030
Year - 2001	-0.0612	***	0.0058
Year - 2001 *(65<=age<=84)	-0.0114		0.0073
Year - 2001 *(age>=85)	-0.0227		0.0194
Indicator health excellent * age >= 51	-0.2087	**	0.0730
Indicator health good * age >= 51	0.2408	***	0.0468
Indicator health fair * age >= 51	0.7455	***	0.0480
Indicator health poor * age >= 51	1.0788	***	0.0548
Present value of lifetime earnings / cohort average	-0.8203	***	0.1097
Present value of lifetime earnings / cohort average * age	0.0102	***	0.0015
Number of ADL limitations * age >= 51	0.0447	**	0.0171
Number of IADL limitations * age >= 51	0.2209	***	0.0189
Indicator ever received DI	0.3621	***	0.0462
In year 1-2 of DI receipt	0.3517	***	0.0999
In year 3-5 of DI receipt	0.2917	**	0.0974

Number of covariates (including intercept)	30
N (person years)	174,431
Death rate	0.034
Positive N	5,945
Not positive N	168,486
Minimimum number of cases for an indicator variable	21

*** indicates p <.001; ** indicates p <.01;* indicates p <.05.

Source: Urban Institute analyses of 1996, 2001, 2004, and 2008 Survey of Income and Program Participation data matched to Detailed Earnings Record, Master Beneficiary File, Numident, and Summary Earnings Record.
Notes: Excludes emigrants over the course of panel, non-matched records. ADLS are as follows: in and out of bed, bathe/shower, dress, walk, eating, toilet. IADLs are as follows: use telephone, get around outside, light housework, prepare meals, manage money.

Appendix Table 12B. Mortality Determinants for Adult Women Ages 25 and Older: Logistic Regression Coefficients from the 1996, 2001, 2004, and 2008 SIPP panels

	coefficient	sig	standard error
Intercept	-10.4602	***	0.8376
Age	0.2861	***	0.0423
Age squared	-0.0046	***	0.0007
Age cubed	0.00003	***	3.71E-06
Less than high school education	-0.0674		0.0362
Some college education	-0.0597		0.0429
College graduate	-0.3516	***	0.0639
Postgraduate education	-0.1113		0.0797
Foreign-born indicator	-0.2292	***	0.0607
Indicator new to US (immigrated within last 5 years)	-0.8316	**	0.2728
Indicator unmarried	0.2611	***	0.0326
Black indicator	-0.0391		0.0441
Asian indicator	-0.233	*	0.1086
Hispanic indicator	-0.1298		0.0716
Indicator worked last year	-0.9106	***	0.2225
Indicator worked last year * age	0.0056		0.0036
Year - 2001	-0.0602	***	0.0063
Year - 2001 *(65<=age<=84)	0.0091		0.0077
Year - 2001 *(age>=85)	0.0131		0.0161
Indicator health excellent * age >= 51	-0.3406	***	0.0794
Indicator health good * age >= 51	0.3011	***	0.0468
Indicator health fair * age >= 51	0.5734	***	0.0485
Indicator health poor * age >= 51	0.9735	***	0.0546
Present value of lifetime earnings / cohort average	-0.9395	***	0.1545
Present value of lifetime earnings / cohort average * age	0.0119	***	0.0020
Number of ADL limitations * age >= 51	0.0128		0.0152
Number of IADL limitations * age >= 51	0.2721	***	0.0173
Indicator ever received DI	0.4124	***	0.0562
In year 1-2 of DI receipt	0.8659	***	0.1071
In year 3-5 of DI receipt	0.2085		0.1184

Number of covariates (including intercept)	30
N (person years)	204,403
Death rate	0.0282
Positive N	5,757
Not positive N	198,646
Minimimum number of cases for an indicator variable	15

*** indicates p <.001; ** indicates p <.01;* indicates p <.05.

Source: Urban Institute analyses of 1996, 2001, 2004, and 2008 Survey of Income and Program Participation data matched to Detailed Earnings Record, Master Beneficiary File, Numident, and Summary Earnings Record.
Notes: Excludes emigrants over the course of panel, non-matched records. ADLS are as follows: in and out of bed, bathe/shower, dress, walk, eating, toilet. IADLs are as follows: use telephone, get around outside, light housework, prepare meals, manage money.