

**EFFECTS OF UNAUTHORIZED IMMIGRATION ON THE ACTUARIAL STATUS  
OF THE SOCIAL SECURITY TRUST FUNDS**

*by Stephen Goss, Alice Wade, J. Patrick Skirvin, Michael Morris, K. Mark Bye, and Danielle Huston*

**INTRODUCTION**

This actuarial note provides information related to projections of the effects of unauthorized immigrants on the U.S. labor force, and more specifically on the actuarial status of the Social Security (OASI and DI) Trust Funds. We have been modeling this important, yet elusive, population for many years. We reported on these effects in a letter to Illinois Senator Dick Durbin in 2007 (copy available on request). The nature and characteristics of this population have changed over the last decade and so we have modified our methods to better account for work activity and potential benefit receipt by unauthorized immigrants. All estimates and analysis reflect the intermediate assumptions and methods developed for the 2012 Trustees Reports.

The balance of this note provides:

- A brief review of the nature of unauthorized immigration, how it has changed, and how our modeling has evolved;
- A detailed discussion of the effects of unauthorized immigration on Social Security's actuarial status;
- Answers to some important questions regarding undocumented immigrants; and
- A list of the major laws affecting both unauthorized immigrants and Social Security.

**A BRIEF REVIEW OF UNAUTHORIZED  
IMMIGRATION**

Legal immigration into the United States has been a major source of population growth and diversity. For over a century, legal immigration has been regulated and the numbers of legal immigrants have been limited by a succession of laws. Unauthorized immigration into the U.S. results from entering the country without legal authorization and from overstaying temporary visas. Both forms of immigration have contributed substantially to the population, directly and indirectly. The indirect contribution refers to the fact that children born in the U.S. to these immigrants are U.S. citizens. For the purpose of this discussion, we use the following terms:

- *Legal immigrants* – U.S. residents born outside the U.S. who have been granted legal permanent resident (LPR) status or have become naturalized citizens.
- *Other immigrants* – U.S. residents born outside the U.S. who have not attained LPR status or citizenship (this group includes those with temporary legal visas).
- *Unauthorized immigrants* – *Other immigrants* residing in the U.S. without current papers documenting their legal status (i.e., either they entered the U.S. without legal documentation or they overstayed temporary visas).
- *Unauthorized workers* – *Other immigrants* working in the U.S. without current visas granting them authorization to work.

In the beginning of 1989, there were an estimated 5 million unauthorized immigrants in the U.S. The Immigration Reform and Control Act of 1986 (IRCA) allowed unauthorized immigrants who could prove they had been residing here for 5 years to apply for LPR status. From 1989 through 1991, about half of these unauthorized immigrants were granted LPR status under IRCA. Since the mid 1990's, however, the estimated number of persons entering the U.S. without authorization has averaged over 1 million per year, and the estimated number of unauthorized immigrants now totals more than 10 million. Individuals leave unauthorized status both by leaving the U.S. (emigration) and by applying for, and being granted, LPR status. In fact, about half of the individuals granted LPR status each year are estimated to come from the other immigrant population. Most of these individuals are residing as temporary legal immigrants with visas or have overstayed visas, rather than coming from the population that has never had temporary legal status.

In 2008, the Office of the Chief Actuary (OCACT) completely restructured the projection method for the other immigrant population. This restructuring had two objectives. The first was to model separately the annual flows of individuals: (1) entering the country in other immigrant status; (2) converting from other immigrant status

to LPR status; and (3) leaving the U.S. from the other immigrant population. The second objective was to reflect administrative changes made by the Social Security Administration (SSA) since 2001, which made it more difficult for unauthorized immigrants to obtain Social Security numbers (SSN) through illegitimate means. Since 2001, SSA greatly increased scrutiny of applications for an SSN after birth, which reduced the incidence of illegitimate receipt of an SSN. For other immigrants entering the U.S. in 2001 and earlier, we assume that about one-third attained apparently legitimate SSNs through illegitimate means. For unauthorized immigrants entering the country after 2001, we believe that the granting of SSNs based on illegitimate documentation has been greatly reduced.

Laws enacted in 1996 and 2004 make Social Security benefits unavailable to unauthorized immigrants residing in the U.S. and to any noncitizen without a work-authorized SSN at some point in time. We project that these laws will significantly reduce benefit receipt among persons who remain in the unauthorized immigrant population in the future.

## **HOW THE PARTICIPATION OF UNAUTHORIZED WORKERS AFFECTS SOCIAL SECURITY'S FINANCIAL POSITION**

For the annual Trustees Reports, the President's Budget, and other documents, OCACT projects the numbers of unauthorized immigrants residing in the United States, their earnings, and the implications of these earnings on Social Security financing. Our projections assume that unauthorized residents work at about the same rate as the rest of the population by age and sex, but earnings are less likely to be reported as taxable and even less likely to be credited for future benefit entitlement. Thus, our projections suggest that the presence of unauthorized workers in the United States has, on average, a positive effect on the financial status of the Social Security program. For the year 2010,<sup>1</sup> we estimate that the excess of tax revenue paid to the Trust Funds over benefits paid from these funds based on earnings of unauthorized workers is about \$12 billion.

While we cannot determine the precise effect on Social Security financing of earnings of unauthorized immigrants, program data fully capture this effect. The current overall financial status of the Social Security Trust Funds is well known, and it provides an excellent base upon which to make projections for the future. The difficulty lies in determining what portion of total taxes paid to and benefits received from the Social Security Trust

Funds derive from the earnings of these immigrants. We can only estimate these amounts using the best available information.

Beyond the taxes paid and benefits received by unauthorized workers, the larger effect on the long-term actuarial status of the OASDI Trust Funds derives from the children born in the U.S. to these immigrants. These children are natural born citizens and add to the growth in the overall U.S. population. This contribution to future generations of workers is the largest part of the effect on the actuarial status both for legal and other immigrants.

## ***Earnings of Unauthorized Immigrants in the United States***

The Census Bureau estimates that the number of people living in the U.S. who were foreign born and not U.S. citizens was 21.7 million in January 2009. Of these, 12.6 million individuals were not legal permanent residents of the U.S. We refer to this group as other immigrants (other than legal permanent resident immigrants). Of this number, about 10.8 million resided in the U.S. in an unauthorized status. The remaining other immigrants resided in the U.S. in a temporary authorized status (for example students and workers with temporary visas).

In order to make projections of the financial status of the Social Security program, OCACT projects the number of other immigrants who are working under various classifications. OCACT assumes that other immigrants are as likely to work as legal permanent residents of the same age and sex. The estimated number of other immigrants working is 8.3 million in 2010. OCACT estimates 0.6 million of the 8.3 million other immigrant workers in 2010 had temporary work authorized at some point in the past and have overstayed the term of their visas. In addition, OCACT estimates that 0.7 million unauthorized workers in 2010 obtained fraudulent birth certificates at some point in the past and these birth certificates allowed the workers to get an SSN. Combining these two groups with the 1.3 million current visa holders with temporary authorization, we estimate 2.7 million other immigrants have SSNs in their name and thus can work, pay taxes, and have earnings credited to their record for potential benefits in the future.

OCACT estimates 1.8 million other immigrants worked and used an SSN that did not match their name in 2010. Their earnings may be credited to someone else's record (when the SSN and name submitted to the employer match Social Security records) or may be credited to the Earnings Suspense File (when submitted with non-matching SSN and name). Finally, OCACT estimates 3.9 million other immigrants worked in the underground economy in 2010.

<sup>1</sup> January 1, 2010, is the starting year for the Social Security population projections. These estimates for 2010 rely on the most recent estimates from the Census Bureau and Department of Homeland Security at the time of preparation for the 2012 Trustees Report (November 2011).

Eliminating the current visa holders with temporary authorization (1.3 million other immigrants with legal work authorization), and those in the underground economy (3.9 million unauthorized workers), we estimate that there are about 3.1 million unauthorized immigrants working and paying Social Security taxes in 2010. With the average amount of OASDI taxable earnings for these immigrants assumed to be about 80 percent of the average level for all workers, we estimate \$13 billion in payroll taxes from unauthorized immigrant workers and their employers in 2010.

### ***Benefits Based on Earnings by Unauthorized Immigrants***

Estimating the portion of all 2010 OASDI benefit payments that will be based on prior unauthorized earnings is even more problematic than estimating current unauthorized earnings. In general, we believe that the evidence indicates a relatively small portion of those who potentially could draw benefits do so.

The principal category of unauthorized immigrants who can currently draw a Social Security benefit includes those who have overstayed visas, or obtained an SSN through illegitimate means. For January 1, 2010, we estimate that there were 720 thousand other immigrants aged 62 and over. Assuming: (1) about 25 percent of these immigrants meet the insured requirements and have a functional SSN matching their name; and (2) they have a monthly benefit level about half the average, we estimate about 180 thousand beneficiaries received roughly \$1 billion in benefits in 2010.

Three additional categories of workers account for a relatively small amount of the total OASDI benefit payments. First, individuals who began receiving benefits before 1997 and never obtained authorization to work, could potentially be receiving benefits. However, they met the difficult challenge of documenting their past earnings and establishing the earnings as taxable. Second, individuals who never obtained authorization to work, received an SSN before 2004, and now live abroad could potentially receive a benefit. However, they would have similar challenges in documenting past earnings. Third, individuals who currently have authorization to work but did not have authorization while residing here in the past would find it difficult to document the earlier earnings. In each of these cases, the requirement to document ownership of reported taxable earnings in the past is a high hurdle, and meeting this requirement seems to be more the exception than the rule.

Overall, therefore, we estimate that about \$1 billion of OASDI benefit payments for 2010 derive from earnings in years where the worker was unauthorized.

### ***Conclusion***

While unauthorized immigrants worked and contributed as much as \$13 billion in payroll taxes to the OASDI program in 2010, only about \$1 billion in benefit payments during 2010 are attributable to unauthorized work. Thus, we estimate that earnings by unauthorized immigrants result in a net positive effect on Social Security financial status generally, and that this effect contributed roughly \$12 billion to the cash flow of the program for 2010. We estimate that future years will experience a continuation of this positive impact on the trust funds.

While we expect the size of the unauthorized population to grow further in the future, several changes would limit the reporting of their earnings as taxable. Among these are issuance of SSNs at birth in recent years and greater scrutiny of birth certificates for individuals who only apply for SSNs at working ages. In addition, recent legislation requires that other immigrants receiving an SSN after 2003 cannot receive benefits unless the worker had legal work authorization at some point before retiring. Another recent change is the creation of a national-wide earnings verification system, which allows employers to check the legal status of their employees. While these changes will alter the future impact of earnings by unauthorized immigrants on the trust funds, we still expect significant effects that will benefit the financial status of the programs.

### **ANSWERS TO SPECIFIC QUESTIONS ON UNAUTHORIZED IMMIGRATION**

#### ***Unauthorized workers in the U.S. and the Social Security system***

- **Question:** To what extent has the economic downturn (that began in 2007) changed immigration trends in the U.S.?  
**Response:** The economic downturn did not affect the number of persons attaining legal immigrant status, as there are always more applicants than can be allowed under the legal limits. However, the downturn did affect the numbers of other immigrants entering and leaving the country. For the intermediate projection of the 2008 Trustees Report (these projections did not include the downturn), we assumed 1.5 million other immigrants

would enter the country in 2009. We now estimate that about 700 thousand other immigrants entered the country in 2009. In addition, due to the recession, we estimate that the number of other immigrants leaving the country was elevated in 2009, leaving only 40,000 net other immigrants for the year. We expect the effects of the recession on the number of other immigrants entering and leaving the country to be temporary. For 2015, we expect the number entering the country to return to 1.5 million and the net other immigration to be about 500,000.

- **Question:** What is the total number of unauthorized workers now participating in the U.S. economy? How has this number changed in the past and how will it change in the future?

**Response:** We estimate that the number of unauthorized workers grew from 4.8 million in 2000 to 8.0 million in 2007, the peak of the last business cycle. The economy then fell into recession and the estimated number of unauthorized workers declined to 7.0 million in 2010. We project that the economy will recover and that the number of unauthorized workers will rise to 9.6 million in 2020.

- **Question:** What is the number of workers who are entering the country illegally? What is the number of workers who have overstayed their visas? How have these numbers changed?

**Response:** The number of persons residing in the country without current legal authorization grew during the period 1990 to 2006 and the Department of Homeland Security (DHS) estimated the stock of unauthorized immigrants to be 11.8 million as of January 1, 2007. However, DHS estimated that this number declined to 10.8 million as of January 1, 2009. After the recovery from the recession, we assume the annual number of other immigrants (unauthorized and temporary visas) entering the U.S. will be 1.5 million per year. However, we assume that about one-third of those entering the country (largely those who have temporary visas or overstay temporary visas) will gain LPR status within a few years, and that the majority of the remaining 1 million other immigrants will eventually leave the country. We estimate the number of other immigrants who have entered the country legally with a temporary visa, have overstayed their visa (work or student), and are working using their legitimately acquired SSN to be 0.6 million in 2010, slightly above the 2000 level of 0.5 million.

- **Question:** How many of the unauthorized workers have an SSN issued in their name and how many are reporting earnings under invalid numbers?

**Response:** Before 1980, many unauthorized work-

ers obtained SSNs in their name using fraudulent identification, particularly birth certificates. After 2001, however, SSA became far more vigilant on identification, and the number of persons obtaining SSNs with fraudulent identification should now be relatively small. We estimate 0.7 million unauthorized workers in 2010 were working using fraudulent identification (most with SSNs obtained before 2001), and we project this number to decrease to less than 0.2 million in 2040. Increasingly in the future, earnings reported to SSA for unauthorized workers will be reported with an illegitimate SSN. In this case, the reported earnings show up with a mismatch between name and SSN and thus would be assigned to the Earnings Suspense File. Due to this mismatch, the worker (and employer) would be paying payroll taxes, but the earnings would not be credited toward later receipt of benefits. Our estimate for the current stock of these immigrants is 1.8 million in 2010, rising to 3.4 million by 2040.

- **Question:** How many unauthorized workers are employed in the underground economy? How has this number changed in the past and how will it change in the future?

**Response:** The estimated number of unauthorized workers who are employed in the underground economy grew from 2.2 million in 2000 to 3.9 million in 2010. We project the number of these workers to grow to 9.0 million in 2040.

### *Wage reporting and wage levels*

- **Question:** Of the unauthorized workers paying OASDI taxes, what is the average level of earnings upon which the taxes are levied and how does that level compare with the broader U.S. labor force?

**Response:** We assume the average level of taxable earnings for these unauthorized workers equals about 80 percent of the average level for all workers. For 2010, we estimate this average level for these unauthorized workers to be about \$34,000.

- **Question:** What is the dollar amount of payroll taxes paid by unauthorized workers and their employers for the latest tax year?

**Response:** We estimate \$13 billion in OASDI payroll taxes from unauthorized immigrant workers and their employers in 2010. This number reflects earnings for those with no recorded SSN, those who have obtained an SSN with fraudulent identification, and those with legitimate SSNs who have overstayed temporary visas.

- **Question:** Does information in the Social Security Earnings Suspense File (ESF) provide insights into

unauthorized workers' labor force participation and earnings? What dollar amount or percentage of earnings in the ESF is the result of unauthorized work? How many items posted to the ESF are from unauthorized work? Since both legal and illegal workers may hold several jobs in any tax reporting year, how does that affect the estimate of unauthorized wage items and earnings reported by unauthorized workers?

**Response:** Viewing the history of the ESF, we attempt to separate the total dollar amount of taxable wages for each year between unauthorized workers and the rest of the population. However, because we cannot identify which individual "wage items" are for unauthorized immigrants and which are for legal residents, we have no way to determine specifically either the number of wage items reported per worker or the average total annual earnings per worker represented on the ESF. Historically, both the unauthorized population and the percent of total reported earnings that goes to the ESF have been rising and we estimate a continuation of these trends. We estimate earnings in the ESF for unauthorized immigrants will increase from less than 1 percent of total taxable payroll in 2000 to about 2 percent in 2040.

### *Benefits based on earnings by unauthorized workers*

- **Question:** How many unauthorized workers receive benefits from Social Security? How many fall under the category of overstayed visa or an SSN obtained through illegitimate means? What is their benefit level, their insured status, and the total amount of benefits they receive compared to authorized workers? What are the trends over time? How will these trends change in the future?

**Response:** Individuals who enter the country as unauthorized immigrants and remain in that status for life are relatively unlikely to receive benefits from the OASDI program. Those who work in the underground economy have no basis for expecting to be entitled for benefits. Those who have worked and paid payroll taxes without a matched SSN will have had their earnings placed in the suspense file and will have only a relatively remote possibility of obtaining credit for these earnings for the purpose of becoming entitled to a benefit. The relatively small and declining number of unauthorized immigrants who have an SSN with earnings credited in their name, may receive benefits in the

future. However, to receive benefits they must meet the following three conditions: (1) work long enough to acquire insured status under the program; (2) receive legal work authorization at some time; and (3) receive legal resident status for the time of their benefit entitlement or, if not, are willing to leave the U.S. to receive a benefit.

- **Question:** What categories of persons, who are or were unauthorized workers, may be eligible for benefits if they can document past earnings? To what degree are they successful in documenting such earnings?

**Response:** We estimate about 30 percent of the other immigrants who were living in the U.S. and were age 62 in 2000, would be eligible to receive retired-worker benefits. We project that the percent eligible to receive a retired-worker benefit will decline to around 10 percent at the end of the 75-year projection period. In addition, SSA authorized about 0.5 million checks to persons living abroad in December 2010. However, most of these individuals are U.S. citizens living abroad or persons receiving benefits under totalization agreements with other countries (based on authorized work).

### **MAJOR LAWS AFFECTING UNAUTHORIZED IMMIGRATION AND SOCIAL SECURITY**

- *Immigration Reform and Control Act (IRCA) of 1986* allowed about ½ of the undocumented population in 1987 to become legal permanent residents over the period 1989-1991.
- Effective December 1, 1996, the *Illegal Immigration Reform and Immigrant Responsibility Act of 1996* prohibits SSA from paying monthly Title II benefits to noncitizens who are in the United States for any month during which they are not lawfully authorized to be in the country. After 2000, SSA became more vigilant in issuing SSNs. Since September 2002, SSA verifies noncitizens' immigration status with the Department of Homeland Security (DHS) before assigning an original SSN or issuing a replacement SSN card.
- The *Social Security Protection Act of 2004* restricts SSA from authorizing Title II benefits to noncitizen workers who received an original Social Security number (SSN) after January 1, 2004 unless they were issued an SSN for work purposes or were admitted into the United States as a nonimmigrant visitor for business or as an alien crewman.