# The Legal Gain:
# The Impact of the 1986 Amnesty Program on Immigrants' Access to and Use of Health Care

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**ABSTRACT:**

This paper capitalizes on the 1986 Immigration Reform and Control Act (IRCA) as a natural experiment to examine the impact of legal status on immigrants' health care access and utilization. IRCA, which is the largest amnesty program in U.S. history, allowed unauthorized immigrants who had entered the U.S. before Jan. 1, 1982 to apply for legal permanent residence status. This exogenous policy change allows immigrant entry date to be used as an instrumental variable (IV) to tease out the impact of gaining legal status on immigrants' health insurance coverage and health care utilization patterns. Data come from the *Los Angeles Family and Neighborhood Survey*. Results show that the gaining of legal status significantly increases immigrants' probability of having health insurance, primarily through the increased probability of having a private health insurance plan. However, legal status does not seem to be associated with immigrants' health care utilization behaviors.

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## 1. Introduction

With comprehensive immigration reform near the top of President Obama's policy agenda, more attention is being drawn to the implications of the potential legalization of about 11 million undocumented immigrants for the health care system. Critics argue that a pathway to citizenship will make the Affordable Care Act (ACA) much more expensive by adding millions of low-income immigrants to the Medicaid rolls or making them eligible for the private insurance subsidies. However, proponents argue that having these prospective Americans insured and paying into America's tax and health care systems will reduce health disparities, improve public health, and consequently decrease the nation's overall spending on health care. These debates boil down to the question: How would gaining legal status change immigrants' access to and use of the health care system?

The disparity in health insurance coverage and health care utilization between immigrants and natives is well documented. According to the Henry J. Kaiser Family Foundation, non-citizens are three times as likely (46% vs. 15% in 2011) as U.S.-born citizens to be uninsured due to lower rates of both public and private coverage (Stephens and Artiga 2013). Largely because of their higher uninsured rate, non-citizens are less likely to have a usual source of care or to receive preventive services, and are more likely to delay or go without needed care due to cost (Stephens and Artiga 2013).

However, research examining the relative importance of legal status in influencing immigrants' access to and utilization of health care is lacking. Immigrants are a heterogeneous population, exhibiting variation in immigration status, length of time in the country and socioeconomic status. Existing studies of health related outcomes controlling for legal and socioeconomic status are likely to suffer from a selection bias problem: that is, certain

unobserved characteristics might be correlated with both an immigrant's legal status and his/her health behaviors.

In this chapter, I treat the 1986 Immigration Reform and Control Act (IRCA) as a natural experiment and examine the impact of legal status on immigrants' health outcomes. IRCA, which is the largest amnesty program in the U.S. history, allowed illegal immigrants who had entered the U.S. before Jan. 1, 1982 to apply for legal permanent residence status. Illegal immigrants who arrived in the U.S. after the cut-off point (Jan. 1, 1982) are not eligible for the amnesty program. This exogenous policy change allows for the use of entry date (pre-1982 or after-1982) as an instrumental variable (IV) for legal status to tease out the impact of legal status on immigrants' health insurance coverage and health care utilization patterns. Data come from the *Los Angeles Family and Neighborhood Survey (L.A.FANS*). Results show that the gaining of legal status significantly increases immigrants' probability of having health insurance, primarily through the increased probability of having a private health insurance plan. However, legal status does not seem to be related to immigrants' health care utilization behaviors. This study provides much needed empirical evidence on the impact of an amnesty program on immigrants' access to and utilization of the health care system, and has important implications for current immigration reform and health care reform debates.

## 2. Background

### 1) Illegal Immigrants and the U.S. Health Care System

Illegal immigration refers to the migration of people across national borders in a way that violates the immigration laws of the destined country. While the majority of illegal immigrants in the United States cross the border illegally ("entry without inspection," in official parlance), others overstay or violate the terms of a visa, such as working while on a non-work visa. This

article uses the terms illegal, unauthorized and undocumented immigrants synonymously to include all these types of migrants.

The population of illegal immigrants living in the United States is estimated to be around 11.2 million in 2010, which accounts for almost a third of the foreign-born population, 4 percent of the nation's population and 5 percent of its labor force (Passel and Cohn 2011). There is a modest decline in the number of undocumented persons present in the United States since the start of the Great Recession. Prior to that, the population of undocumented persons was increasing steadily, from a few hundred thousand in the late 1960s to an estimated 3.5 million in 1990 to a peak of 12 million in 2007 (Orrenius and Zavodny 2012; Passel and Cohn 2011). From 1990 to 2007, the annual growth rate in the number of undocumented immigrants was 14.29 percent (Passel and Cohn 2011).

Illegal immigrants represent a particularly vulnerable population when it comes to health insurance coverage and access to health care. According to Passel and Cohn (2011), 8 million out of the estimated 11.2 million undocumented immigrants (or 71 percent) are in the U.S. labor force. However, undocumented workers are strongly concentrated in low-skill and low-wage jobs. In 2011, the median annual household income for noncitizens was $27,400, nearly half the amount of the household income for citizens (Stephens and Artiga 2013). As a result, they have less access to employer-sponsored insurance than native-born Americans do, and lower ability to purchase private coverage on the individual market.

In addition, illegal immigrants have no claim to the federally funded public health insurance programs (Medicaid and Children's Health Insurance Program, or CHIP), to which low-income U.S. citizens have access. The only exception is emergency Medicaid, because hospitals can be reimbursed for short-term, emergency medical care provided to individuals who

are otherwise eligible for Medicaid but for their immigration status. Since 2002, states have had the option to provide prenatal care to women regardless of immigration status by extending CHIP coverage to the unborn child. As of January 2013, 15 states have elected this option. Eight states and the District of Columbia (CA, DC, FL, IL, MA, NY, NJ, and WA) have established fully state funded programs that provide coverage to immigrants regardless of status, though these programs are often limited to specific groups (such as children or pregnant women) or provide a limited set of services (Fortuny and Chaudry 2011).

Largely due to the limited access to both private and public health insurance, illegal immigrants' use of health care services is substantially lower than that of their native born and legal immigrant counterparts. For example, Wallace et al. (2013) find that in California, nonelderly undocumented adults are more than twice as likely to report having no usual source of care or making no past-year doctor visits as U.S.-born and naturalized citizens of similar ages and genders. Contrary to the popular belief that illegal immigrants flood emergency rooms as their main source of health care, the authors find that undocumented immigrants were the least likely to have used an emergency department in the past year comparing to native born and naturalized citizens (Wallace et al. 2013). There is a huge gap between illegal immigrants' need for health care and the availability of affordable options.

The 2010 Patient Protection and Affordable Care Act (ACA) aims to expand insurance coverage for the uninsured, with one notable exception. Undocumented immigrants and lawfully present immigrants who have been here less than five years are excluded from the health care reform. Undocumented immigrants are expressly exempted from the individual mandate to have health insurance, are prohibited from purchasing exchange coverage and receiving tax credits, and remain ineligible for Medicaid. Hundreds of thousands of the Deferred Action for Childhood

Arrivals (DACA 2012) beneficiaries, who would ordinarily meet the definition of "lawfully present" residents, are specifically classified as ineligible for Medicaid, CHIP, or federal subsidies for buying private health insurance[1]. As a result, the ACA will not benefit the approximately 11 million undocumented residents in the United States and their families, as well as the health care providers they rely upon.

When the ACA was signed into law in March 2010, many were disappointed that the bill left undocumented immigrants out of the health reform. With immigration reform highly visible in Obama's second term, immigration advocates are viewing this as a second chance to address a growing public health concern. Immigration reform that includes either a path to citizenship or gaining recognition as legal residents could open the door for millions of unauthorized immigrants to public health insurance or subsidies for private health insurance. How would undocumented immigrants change their utilization patterns of health insurance programs and the health care system after gaining legal status in the United States? What implications could the legalization of about 11 million undocumented immigrants have for the health care system? These are some of the fundamental questions that need to be answered when we are debating the pros and cons of a potential amnesty program. In this paper, I analyze American's experience with a past amnesty program to shed some lights on these important questions.

## 2) The 1986 Immigration Reform and Control Act (IRCA)

The Immigration Reform and Control Act of 1986 (IRCA) is the most recent large-scale amnesty measure passed in the United States. It was intended to stem the flow of increased illegal immigration into the United States by adopting three strategies: 1) to increase Immigration and Naturalization Service's resources for border enforcement, 2) to introduce

[1] http://cis.org/sites/default/files/edwards-daca-health-reform.pdf. Accessed January 13th, 2013.

employer sanctions for knowingly hiring undocumented workers and 3) to offer two amnesty programs to legalize illegal resident aliens.

The two amnesty programs, the Legally Authorized Workers (LAW) program and the Special Agricultural Workers (SAW) program, together enabled 2.7 million undocumented immigrants to acquire legal permanent resident status in the United States (Amuedo-Dorantes, Bansak, and Raphael 2007). LAW allowed undocumented persons to apply for temporary legal residency if they had been living continuously in the United States since January 1, 1982. Legalization of these long-term illegal residents was intended to bring undocumented workers "out of the shadows" and improve their wages and working conditions by reducing workplace vulnerabilities (Kossoudji and Cobb-Clark 2002; Kossoudji and Cobb-Clark 2000). SAW extended temporary permanent resident status (LPR) to undocumented persons who worked at least 90 days in U.S. agriculture during each of the previous three years or who worked at least 90 days during the past year. SAW was expected to close or slow the revolving door to the farm labor market that permitted Mexican immigrants to enter the U.S. for most of the 20$^{th}$ century (Martin 1994) . Due to difficulties in identifying and tracking seasonal migrant workers in the agriculture sector who might have benefited through the SAW program, most of the studies to date have focused on the LAW program. Following the literature, I also focus on the impact of the LAW program in this paper.

It is estimated that most undocumented migrants applied for legalization under IRCA (Hoefer 1991). The process of legalization lasted an average of two years –more than 95 percent of legalizations took place between 1989 and 1991, and had a high rate of success –about 9 out of 10 applicants obtained LPR status (Rytina 2002). About 1.6 million immigrants were legalized under the LAW program.

Due to the scarcity of individual level data containing information on immigrants' legal status, only a handful of published papers have examined IRCA's impact on newly legalized immigrants. The majority of the existing studies use the *Legalized Population Surveys (LPS)* data to examine the law's effect on adult immigrants' labor market outcomes (Rivera-Batiz 1999; Kossoudji and Cobb-Clark 2000; Amuedo-Dorantes and Bansak 2011; Amuedo-Dorantes, Bansak, and Raphael 2007). Their results indicate a six-to fifteen-percent increase in immigrants' wages and increased job mobility following legalization. Using Census data, Pan (2012) employs a regression discontinuity design to assess the impact of the IRCA on immigrants' labor market outcomes and human capital development. He finds that legalization can increase male immigrants' wages, female immigrants' employment rate, and male immigrants' English speaking abilities all by roughly10 percent. However, using the *New Immigrant Survey (NIS)*, Hill et al. (2010) find that the impact of legalization on earnings is attenuated by immigrants' education level, with about 10 percentage point gains for high-skilled unauthorized immigrants and negligible gains for low-skilled ones.

These studies are important in helping us understand the impact of IRCA on the employment rates and wages of newly legalized immigrants. However, the impact of the legalization of millions of undocumented immigrants goes far beyond the labor market. One obvious, yet understudied question is how the newly gained eligibility for public services has changed the previously undocumented immigrants' use of social programs. No studies to date have analyzed IRCA's effect on legalized immigrants' use of Medicaid and the health care system. The present paper is the first of its kind to systematically and empirically test the relationship between an amnesty program and immigrants' use of public services.

**3. Data and Methods:**

Research on immigrants' health insurance coverage and health care utilization patterns has been severely limited by the quality of available data. Most general social science surveys include the foreign-born only in proportion to their representation in the population. Relevant information on immigrant attributes is often unavailable, because these surveys are targeted to the more numerous nonimmigrant populations. Most importantly, immigrants' legal status is frequently missing, because of a perceived sensitivity about the question or the limited numbers of undocumented immigrants included in these surveys.

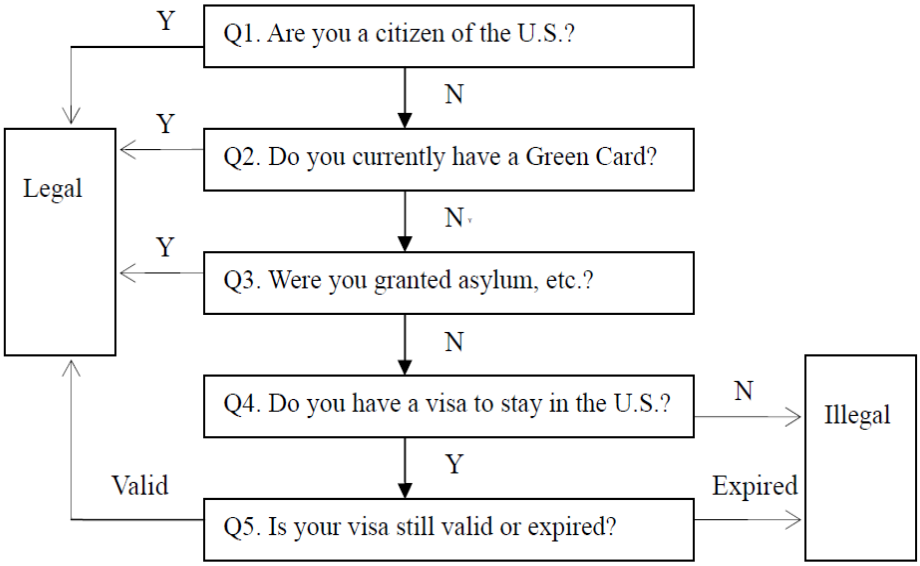
In this paper, I make use of the *Los Angeles Family and Neighborhood Survey (L.A. FANS)*, the only population-based, representative dataset to date that asks immigrants specifically about their immigration status, their health insurance coverage and their use of the health care system. The L.A. FANS is a longitudinal study of families in Los Angeles County, California, and of the neighborhoods in which they live. Fieldwork for the first wave (L.A. FANS-1) began in April 2000 and was completed by the end of 2001. The second wave (L.A. FANS-2) were fielded between 2006-2008. L.A. FANS is based on a stratified random sample of sixty-five census tracts in Los Angeles County with oversampling of poor neighborhoods. Within each neighborhood, households were randomly selected. Interviews were completed with 3,085 households, achieving a response rate of 82 percent.

**1) Definition of Immigrants' Legal Status**

The L.A. FANS-1 asks the foreign-born respondents a series of questions regarding their citizenship, permanent residency ("green card"), refugee type, and visa status. Following the well-developed and widely accepted "residual method" (Passel and Cohn 2009; Passel and Cohn 2011), I define respondents who report to have a U.S. citizenship, a legal permanent residency, a refugee status, or a valid visa as "legal immigrants". Everyone else is classified as "illegal

immigrants", which includes both those who have crossed the border illegally and those who have overstayed or violated the terms of their visa. Figure 1 is a visual presentation of the method I used to determine immigrants' legal status using the L.A. FANS-1 data.

Figure 1. To Define Immigrants' Legal Status




Source: LAFANS

Using the definition described above, I am able to identify the legal status of 3,557 adult respondents in the sample. 1,499 (42.14 percent) of them are native born, 1,332 (37.5 percent) are legal immigrants; and the remaining 726 (20.41 percent) are illegal immigrants. Table 1 shows the detailed breakdown of the respondents by their legal status. It is apparent that immigrants are oversampled in L.A.FANS, since the foreign-born population makes up 10.4 percent of the total U.S. population[2], and 35.7 percent of the population in Los Angeles[3], the county with the biggest number of immigrants in 2000.

[2] http://www.census.gov/prod/2000pubs/p20-534.pdf. Accessed June 16th, 2013.
[3] http://www.migrationinformation.org/feature/display.cfm?ID=818. Accessed June 16th, 2013.

| Table 1. Number of Respondents by Legal Status | | |
|---|---|---|
| **Legal Status** | **Number** | **Percent** |
| Native citizen | 1,499 | 42.14 |
| Naturalized citizen | 553 | 15.55 |
| Legal Permanent Resident | 605 | 17.01 |
| Refugee/Asylee | 76 | 2.14 |
| Temporary visa | 98 | 2.76 |
| Illegal | 726 | 20.41 |
| Total | 3,557 | 100 |

## 2) Identification Strategy

Although no literature exists on IRCA's impact on immigrants' health insurance coverage and health utilization, there is a large and growing number of studies that investigate the impact of the 1996 federal Welfare Reform and the changes of state eligibility rules for Medicaid on the immigrant population (Borjas and Hilton 1996; Borjas 1999; Gelatt; Kaushal 2006; Watson 2010; Kaushal and Kaestner 2005; Van Hook 2003; Kaestner and Kaushal 2003). They generally find that the Welfare Reform led to a decrease in Medicaid coverage for immigrants above and beyond what the changes of eligibility rules would predict (Kaestner and Kaushal 2003; Borjas 2003). These studies improve upon earlier research of immigrant health by exploiting the changes in policies to address the endogeneity problem, i.e. certain unobservable characteristics might be correlated with both an immigrant's legal status and his/her health behaviors. I build upon this line of research and treat the amnesty program under the 1986 LAW as a natural experiment to study the impact of gaining legal status on previously illegal immigrants' health related outcomes.

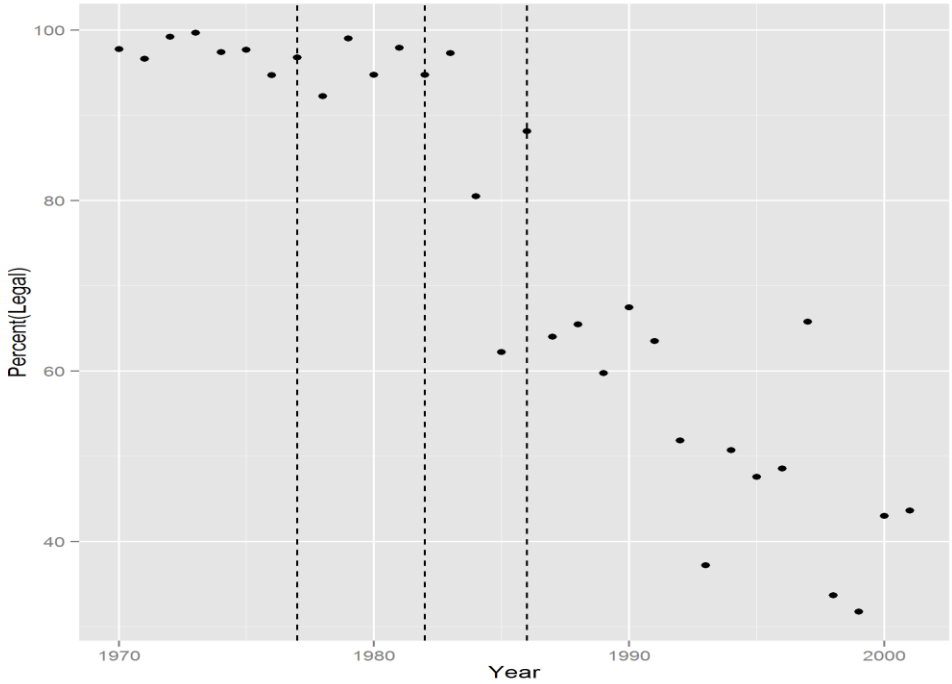
As discussed, legal status is not an ideal right-hand variable to explain immigrants' health insurance coverage and health care utilization because it may not be causally independent of the

health related variables. Immigrants who are in the United States in a specific legal status might have some unobserved characteristics that are correlated with their health outcomes. In order to deal with this potential problem of simultaneity, I employ the entry date into the U.S. (pre-1982 and after-1982) as an instrumental variable (IV) for legal status to tease out the independent impact of gaining legal status on previously illegal immigrants' health insurance coverage and health care utilization. To pass the test as a valid instrument, it must be correlated with the endogenous explanatory variable (legal status), but not correlated with the error term in the models explaining our outcome variable (health insurance coverage and health care utilization).

According to LAW, illegal immigrants arriving before 1982 are eligible to apply for legal permanent residence status, while illegal immigrants entering the U.S. after January 1st, 1982 are not eligible. This creates a sharp discontinuity in my data around the entry year of 1982 with regard to the probability of having a legal status.

Previous literature find that IRCA allowed almost all illegal immigrants who entered the U.S. before 1982 to be legalized (Briggs 2004; Orrenius and Zavodny 2012; Pan 2013). The consequence of this amnesty is that the probability of having legal status for pre-1982 arrivals is almost one, while the probability for post-1982 arrivals immediately drops. This trend is clearly demonstrated in Figure 2 with the L.A.FANS data.

**Figure 2. The Percent of Respondents with Legal Status by the Year of Entry**




The IRCA took effect in 1986 and retrospectively legalized immigrants who had arrived in the U.S. before 1982 (Briggs 2004). The previous literature documents that the IRCA was passed unexpectedly in 1986. Since immigrants who arrived before 1986 did not anticipate this law, they could not have changed their migration decisions in anticipation of the amnesty program. For immigrants who have already lived in the country before the law was passed, there is no reason to expect the entry date to be correlated with any other determinants of health insurance coverage and health care utilization patterns. Therefore, I exclude the post-1986 arrivals from this research and compare the 1982–1986 arrivals with the 1975–1981 arrivals. I expect that the demographic and socioeconomic characteristics of the 1975-1981 and 1982-1986 cohorts would be sufficiently similar because there were no big changes in immigration law or economic trajectory during this period.

Table 2 compares a variety of outcomes between the two cohorts. Since the Pre-1982 cohorts have arrived in the U.S. earlier, they are on average older, have stayed in the U.S. longer, and have more kids. However, there are no statistically significant differences in their marital status, education level, labor force participation rate and income level.

| **Table 2. Comparison of the Pre-1982 and Post-1982 Immigrants** | | | | |
|---|---|---|---|---|
| | All | 1977-81 | 1982-86 | Difference |
| | (1) | (2) | (3) | (4)= (2)- (3) |
| Legal | 0.869 | 0.92 | 0.804 | 0.116*** |
| | [.014] | [.015] | [.025] | [.028] |
| Age | 38.416 | 39.63 | 36.879 | 2.751*** |
| | [.399] | [.549] | [.564] | [.796] |
| Duration in the US | 20.491 | 22.671 | 17.723 | 4.948*** |
| | [.116] | [.074] | [.086] | [.113] |
| Number of kids | 2.699 | 2.834 | 2.527 | .307** |
| | [.075] | [.104] | [.107] | [.151] |
| Married | 0.64 | 0.667 | 0.605 | .062 |
| | [.020] | [.026} | [.031] | [.04} |
| Years of Schooling | 10.497 | 10.498 | 10.494 | .004 |
| | [.201] | [.281] | [.284] | [.405] |
| Currently Working | 0.637 | 0.628 | 0.648 | -.020 |
| | [.02] | [.027] | [.030] | [.040] |
| Family Income | 37911 | 39692 | 35634 | 4058 |
| | [1974] | [2767] | [2777] | [3978] |
| No Health Insurance | 0.381 | 0.324 | 0.453 | -.129*** |
| | [.021] | [.027] | [.032] | [.041] |
| Private Health Insurance | 0.49 | 0.542 | 0.424 | 0.117*** |
| | [.021] | [.028] | [.032] | [.042] |
| Public Health Insurance | 0.129 | 0.135 | 0.122 | 0.012 |
| | [.014] | [.019] | [.021] | [.029] |
| Visited Doctor/Nurse in past 2 yrs | 0.737 | 0.727 | 0.749 | -.022 |
| | [.019] | [.026] | [.029] | [.039] |
| # of doctor visits | 3.847 | 4.199 | 3.4 | 0.799 |
| | [.250] | [.356] | [.340] | [.502] |
| # of times in 2yrs hospitalized | 0.221 | 0.269 | 0.162 | 0.107** |
| | [.024] | [.036] | [.031] | [.049] |
| Use Emergency Room when sick | 0.041 | 0.042 | 0.041 | 0.0005 |
| | [.010] | [.013] | [.015] | [.020] |

| | | | | |
|---|---|---|---|---|
| Number of Observations | 581 | 325 | 256 | |

These descriptive statistics also indicate that there are statistically significant differences between the health insurance coverage and health care utilization patterns among these two cohorts that are worth of exploring more rigorously.

There are some concerns in the literature about the widespread fraud under IRCA (Orrenius and Zavodny 2012), which could potentially pose some validity threat to using the entry date as an instrument. However, people who have lied about their entry date to be eligible for the amnesty problem are most likely to lie about their entry date when interviewed by L.A.FANS. Therefore, the impact we detect using our model is the impact of the actual gaining of legal status, and not the intended impact of the law.

**3) Models**

I use a two stage least squares (2SLS) approach to model health insurance coverage and health care utilization as a function of legal status and other individual characteristics. The basic model specification is:

1) $\text{LegalStatus}_i = \alpha_0 + \alpha_1 \text{Pre82}_i + X_i b + \mu_i$

2) $Yi = \beta_0 + \beta_1 * \textit{LegalStatus}_i + X_i d + e_i$

In the first stage, the entry dates (pre-1982 and post-1982) are used to predict the probably of a foreign-born resident of Los Angeles County to have a legal status. The predicted value of legal status is then plugged in model 2 to estimate the impact of gaining legal status on health insurance coverage and health care utilization.

In the health insurance coverage model, Ys are two binary variables indicating whether the respondent is uninsured and whether they have a private health insurance. In the health care

utilization model, Ys are a series of variables indicating whether the respondent visited doctors, did routine check-ups, used an emergency room, and was hospitalized in the past year.

In addition to legal status, this study uses the following set of independent variables available from the survey: age, ethnicity, marital status, education level, duration in the U.S., number of kids, employment status and family income. I expect to find that gaining legal status will reduce immigrants' rate of uninsurance and increase their health care use, everything else being equal. The ability to pay measures such as employment status, family income, age, ethnicity and education are expected to be negatively correlated with the lack of health insurance and positively correlated with the frequency of health care usage. I hypothesize that older people would be in greater need of health care so they would be less likely to be insured and more likely to use the health care system. The duration in the U.S. can proxy for the extent to which an immigrant has acculturated and assimilated into the American society. Immigrants who have been in the country longer might have better language ability to navigate the health care system. They might also have adapted to a greater extent to the American way of perceiving and treating health needs. Therefore, I expect the duration of stay in the U.S. to be negatively related to the uninsurance rate and positively related the frequency of health care usage. The sign of marriage status and the number of kids are dubious, since they could be an indication of family and income stability, but they might also work as a financial drain that divert family income away from their health needs. The impact of these variables is an empirical question.

## 4. Results and Discussion

Table 3 below reports the 2SLS regression results using uninsured and private health insurance as the dependent variables. The results show that gaining legal status significantly reduces previously illegal immigrants' probability of being uninsured, while it increases the

probability of having a private health insurance. Gaining legal status through an Amnesty program leads to a 7.1 percent reduction in the probability of not having any health insurance. This impact is statistically significant at the 0.05 level. As expected, family income, which is a measurement of the ability to pay, has a statistically significant impact on reducing the uninsurance rate. The higher the income, the less likely is the respondent to be uninsured. In addition, immigrants' duration of stay in the U.S. is negatively correlated with the probability of being uninsured. This might be attributed to the acculturation process of the immigrants in the host society: the longer they have resided in the U.S., the more they appreciate the importance of having health insurance and thus the less likely they are going to be uninsured.

The increase in health insurance coverage for previously illegal immigrants is accompanied by an increase of private health insurance. Gaining legal status leads to a 5.7 percent increase in private insurance. This indicates that the amnesty might have improved legal immigrants' labor outcomes so that they have better jobs with better employer-provided health insurance. This result is in line with the findings in the literature on the impact of the amnesty program, where generally a 6-15 percent increase in immigrants' employment rates and wages is found.

Whether the respondent is working or not has a significant positive impact on the probability having a private health insurance. The currently employed are 18.9 percent more likely to be covered by a private health insurance than the unemployed are. Family income is also a strong predictor of private insurance coverage, implying the importance of ability to pay in getting private health insurance.

| Table 3. 2SLS Regression Results for Health Insurance Coverage | | | | |
|---|---|---|---|---|
| **Dependent Variable** | **No Insurance** | | **Private Insurance** | |
| | Coef. | Robust SE | Coef. | Robust SE |
| **Legal Status** | -.071** | .136 | .057** | .105 |
| **Age** | -.003 | .007 | -0.001 | .006 |
| **Married** | -.059 | .135 | .119 | .126 |
| **Years of Schooling** | -.021 | .013 | .014 | .012 |
| **Duration in US** | -.023*** | .021 | .011 | .019 |
| **Number of Kids** | .003 | .028 | -.002 | .026 |
| **Hispanic** | .006 | .046 | -.004 | .035 |
| **Currently Working** | -.054 | .045 | .189*** | .044 |
| **Family Income** | -1.49e-6*** | 3.88e-7 | 2.24e-6*** | 4.09e-7 |
| **cons** | 1.365*** | .276 | -.629*** | .254 |
| | N= 541, R-squared = .1633 | | N= 541, R-squared = .2435 | |

Source: *Los Angeles Family and Neighborhood Survey*.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

However, no significant impact of gaining legal status is detected in the health care utilization models. Table 4 presents the 2SLS regression results for models using doctor visits and emergency room visits as the dependent variables. Regression results with the number of doctor visits and hospitalization follow the same pattern and are available upon request. Legal Status does not seem to influence immigrants' use of primary care or emergency room. It should be noted that the health care utilization models have very small explanatory power, and the model fits are poor. The only significant variable is employment, indicating that immigrants who have a job are less likely to use the emergency room. One important limitation is that no health condition variables are included in the current model. In addition, language ability, cultural roots and common practice in the immigrant communities might also have an impact on their health care utilization behaviors. My next step is to put in health condition variables and other cultural related variables in the health care utilization equations to refine the models. I will also

incorporate the newly released follow-up survey L.A. FANS-2 to test whether and how immigrants change their health utilization behaviors with longer exposure to the host society.

**Table 4. 2SLS Regression Results for Health Care Utilization**

| **Dependent Variable** | **Visited Doctors/Nurses** | | **Used Emergency Room** | |
|---|---|---|---|---|
| | Coef. | Robust SE | Coef. | Robust SE |
| **Legal Status** | .038 | 1.07 | 0.169 | 0.371 |
| **Age** | .001 | .007 | -0.001 | 0.003 |
| **Married** | .004 | .109 | -0.067 | 0.044 |
| **Years of Schooling** | .008 | .012 | -0.001 | 0.005 |
| **Duration in US** | -.003 | .016 | -0.003 | 0.004 |
| **Number of Kids** | -.009 | .026 | 0.008 | 0.009 |
| **Hispanic** | .042 | .056 | .002 | 0.024 |
| **Currently Working** | -.112 | .056 | -.043* | 0.024 |
| **Family Income** | 7.47e-07 | 4.70e-07 | -1.58e-7 | 1.95e-7 |
| **Cons.** | .669* | .353 | 0.060 | 0.193 |
| | N=510, R-squared=.023 | | N= 400, R-squared = .017 | |

Source: *Los Angeles Family and Neighborhood Survey*.
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

## 5. Conclusion

Since the ACA specifically excluded illegal immigrants from the expansion of Medicaid and the health exchange market, they are not benefiting from the new health reform. Once the ACA is fully implemented, the 11 million undocumented immigrants will become the largest demographic group in the United States without affordable health insurance. They will continue to have limited access to the health care system and their health needs will continue to be largely unmet. Policy makers are faced with the tough question of how to design a fair and just health system which will take into account the illegal immigrants who are already in the country.

The prospect that Congress may act on a comprehensive immigration reform bill provides an important opportunity to assess what impacts a potential amnesty program might have on the illegal immigrant population and the health care system. My research represents the first attempt

to empirically test the impact of the 1986 Amnesty program on previously illegal immigrants' health insurance coverage and health care utilization.

Using the exogenous variation in legal status as the result of the Immigration Reform and Control Act (IRCA), the preliminary empirical estimations indicate that gaining legal status through the amnesty program significantly reduced immigrants' probability of being uninsured, while increased their probability to be covered through private health insurance. Immigrants who have gained legal status under IRCA are 7.1 percent less likely to be uninsured and 5.7 percent more likely to have a private health insurance plan ten years after they have obtained their legal permanent residency. The amnesty increased previously illegal immigrants' eligibility for social services. However, it seems that the improvement in their health insurance coverage rate is mainly attributed to the increase in private health insurance coverage, which might be the result of their improved labor force outcomes. Previous literature on the IRCA has identified the improvement of labor market efficiency as the main effect of the amnesty. The results of this line of research and my analysis together implies that the costs of extra social service spending need to be weighed against the benefit of improved economic efficiency when we are debating the merit of a potential new amnesty program.

In addition, the influence of the lack of accessible and affordable health insurance goes beyond the illegal immigrants themselves. The number of mixed-status families in which at least one parent is a noncitizen and at least one child is a citizen is surprisingly large. According to estimates by the Urban Institute, 5.6 million, or 32 percent of children of immigrants in 2007 lived in mixed-status families where the children were U.S. citizens and the parents were not.[4]

[4] See 15. Fix, M., Zimmermann, W., 2001. All Under One Roof: Mixed-Status Families in an Era of Reform. International Migration Review 35**,** 397-419. We follow Fix and Zimmermann (2001) and define a Mixed-Status Family as a family with members of varying legal status. While this term refers to families with both citizen and noncitizen parents and children, a prevalent situation is one in which the children have citizenship by being born

Past literature has consistently shown that parents in mixed-status families are less likely to apply for social benefits for which their citizen children are eligible, largely because of fear of deportation and confusions about eligibility rules (Fix and Passel 1999; Kaushal and Kaestner 2007; Van Hook 2003; Vargas 2010; Watson 2010). Sommers (2007) find that more than two-thirds of uninsured U.S. children are eligible for public coverage, and children in mixed-status families make a large part of it. According to Hudson (2009), there are an average of two uninsured children in each mixed-status family in 2007. Such families provide a ready target for states' efforts to improve take-up rates among the eligible but uninsured population. In light of the current health reform efforts to increase overall coverage and to improve take-up among eligible groups, states may benefit by focusing efforts on the mixed-status population. Improvements may result by either expanding eligibility to parents of all citizen children, or by fine-tuning outreach to target mixed-eligibility families.

The preliminary regression results for the health care utilization models indicate that gaining legality does not seem to change immigrants' utilization of the health care system. There are however some limitations with this current draft. My next step is to expand the health care utilization models to incorporate health condition variables and cultural related variables. I will also use the newly released follow-up survey L.A. FANS-2 to test whether and how immigrants change their health behaviors with longer exposure to the host society. These new analysis will gives us additional information on the determinants of immigrants' health care utilization, provide empirical evidence on the acculturation hypothesis, and shed lights on the debate about how to best improve immigrant health in this country.

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in the U.S. and at least one parent is a noncitizen. Noncitizens include legal immigrants, such as legal permanent residents, people on temporary student, working or tourist visas, and refugees, and unauthorized immigrants.

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