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Immigrants, Medicaid, and the Deficit Reduction Act

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Abstract

This study examines the effects of the Deficit Reduction Act (DRA) on immigrant Medicaid participation using data from the 2005 and 2007 March supplements of the Current Population Survey. The DRA made changes to Medicaid coverage laws by requiring proof of citizenship for eligibility rather than a sworn statement, as was the case prior to the DRA, thus reducing the non-citizen/non-legal permanent resident use of Medicaid. A difference-in-difference methodology is used, and the research finds that the laws were effective in decreasing non-citizen use of Medicaid relative to citizens, though there is a possibility of "chilling effects" on eligible non-citizens.

Introduction

The costs and benefits of immigrants' on the economy has been a topic of extensive research over the past several decades. One particular area of importance when considering the potential costs of immigrants to an economy is the existence of a welfare state. As past studies show that immigrants are found to have a higher propensity for welfare use relative to that of natives, such expenditures should be carefully examined. In 1996, the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) contained important provisions that attempted to curb spending of welfare payments to immigrants. Yet, Camerota (2007) shows that a majority of welfare expenditures on immigrants continue to be from the Medicaid program, and the immigrant population, legal and illegal, has continued to grow by hundreds of thousands annually[1]. Texas, a major immigrant-receiving state, reports a 114 percent increase in state and federal Medicaid expenditures for estimated undocumented immigrants from years 2000-2005[2]. This phenomenon was partially addressed by further provisions of the Deficit Reduction Act (DRA) of 2005. Yet, while many studies attempt to measure the effects of PRWORA on the receipt of welfare by immigrants, the literature that examines the further effects of the DRA is lacking.

The combination of immigrant propensities for welfare and the high levels of incoming immigrants will naturally lead to the source problems that are associated with

[1] Source: Office of Immigration Statistics, "2009 Yearbook of Immigration Statistics", Department of Homeland Security (2009)

[2] Source: Susan Combs.Window on State Government.Texas Comptroller of Public Accounts. http://www.window.state.tx.us/specialrpt/undocumented/4health.html. 2006.

immigrants and welfare. First, it is a concern that immigrants may use welfare at greater amounts than they contribute in taxes. Secondly, the existence of welfare benefits can actually incentivize migration to the United States for immigrants that stand to benefit from welfare receipt, assuming that immigrants act rationally and attempt to maximize utility. These issues question the "best" use of public resources, and the extensive research on this topic led policy makers to take legislative action. PRWORA made significant changes in abilities to receive welfare by individuals, and contained specific provisions to immigrant usage that made immigrants arriving post-1996 generally ineligible for most types of welfare. Much research has been devoted to looking at the effects of PRWORA on immigrant welfare receipt, generally finding it to have had a significant negative effect on general immigrant welfare receipt. However, Camerota (2003) finds that when looking at individual welfare programs rather than general assistance as a whole, immigrant receipt of payments decreases for most programs with the exception of Medicaid, of which costs continued to rise even after the passage of PRWORA.

The DRA made important changes in general Medicaid eligibility by tightening proof of citizenship requirements. These new provisions for Medicaid eligibility suggest that PRWORA may not have been completely effective in its aim of reducing welfare spending on immigrants. The purpose of this paper is to examine the further effects of the DRA on immigrant household welfare usage relative to that of native households, as these effects are important for any future policy decisions regarding immigrants and welfare reform. Furthermore, this research can serve in the broader debate regarding the

effectiveness of welfare reform as a means to reduce public spending on immigrants compared to that of natives.

Blau (1984) initially analyzed propensity of welfare usage relative to that of natives by looking at data from the 1976 Survey of Income and Education, and reports that immigrants do not place a larger burden on the welfare state than do natives. Borjas and Trejo (1991) analyze the same topic, but addressed possible flaws of the study done by Blau, these being that a single cross-sectional analysis does not account for any changes over time in immigrant welfare usage. In their research, they analyze the 1970 and 1980 2% and 5% Census samples, respectively. Their results contradict those of Blau (1984), in that immigrants are in fact found to have higher propensities to receive welfare payments when controlling for cohorts and assimilation effects. The implications here show that, when looking at immigrant welfare usage over time, newer immigrants were using welfare at greater rates than earlier immigrants, and these rates continued to increase. Thus, it is important to analyze multiple cross sectional data sets as well as consider immigrant cohorts when interpreting any empirical findings on immigrant welfare usage.

Borjas (1994) intertwines the importance of immigrant mobility into the argument. The study reports the declining level of skills among newer immigrant cohorts due to a changing national origin mix, and thus a higher propensity for immigrants to decide to come to the U.S. for the use of welfare for the purposes of increased benefits relative to the source country. The study also finds that recent cohorts receive a relatively large share of cash benefits, but do not receive a relatively large share of income. Thus immigrant tax payments may not ultimately fund the welfare receipts by immigrant

households, leading to a net loss on immigrant welfare usage. Importantly, much of the research up to this point only considered programs that actually made *cash* transfers to immigrants. Borjas and Hilton (1996) show that, if non-cash transfers such as Medicaid and housing subsidies are included, the propensity for immigrants to receive welfare benefits relative to natives increases dramatically. The study also reports that immigrants tend to receive welfare for longer periods of time relative to natives.

The research up to this point paints a clear picture of the potential problems associated with immigrant welfare receipt:

a) Immigrants were becoming more likely to use welfare at increasing rates over time

b) Immigrant income share (and therefore tax payments) across all households did not necessarily balance out the share of immigrant welfare cash receipts across households

c) These facts may be understated due to the exclusion of non-cash welfare receipts from many findings, especially in regards to Medicaid usage.

These issues led to the passage of PRWORA in 1996, which sought to control some of these issues via welfare policy reform as opposed to immigration policy reform. PRWORA laws generally banned most welfare eligibility for immigrants that arrived after 1996 until they had become a U.S. citizen after the first five years since migration, or become a legal permanent resident and complete forty quarters of qualified work. The emphasis on welfare receipt was now placed on citizenship status, effectively making

citizenship the ticket to welfare receipt (PRWORA laws did not, however, apply to refugees or asylum-seekers).

Fix and Passel (1999) show that the effects of PWRORA on welfare usage by immigrants were actually quite significant, ultimately reducing immigrant welfare usage by a much greater amount relative to reductions in native use. Borjas (2002) draws similar conclusions but also reports that the main effects are due to the decline in welfare usage among California immigrant residents, whereas many immigrants in other states were not affected as severely. These results are important because a major limitation of the PRWORA laws lie in the fact that, even though federal funds were denied to most non-citizen immigrants, individual states were still given the power to supply non-citizens with state funded welfare. Some of the states with large immigrant populations chose to continue to supply immigrants with welfare benefits; one possible reason for this could be in exchange for valuable immigrant support to local politicians. Furthermore, lifting the welfare ban once citizenship is obtained places an incentive for immigrants on gaining citizenship as a means to an end for welfare receipt. Due to the individual states ability to continue providing assistance to otherwise ineligible immigrants, the overall effects of PRWORA may have diminished.

The Deficit Reduction Act of 2005

In 2005, the Deficit Reduction Act was proposed, and then later signed into law during February of 2006. This bill was an extension of PRWORA, and affected two major welfare programs, these being the Temporary Assistance for Needy Families

program and the Medicaid program. These changes in TANF eligibility did not directly target immigrant usage, and thus will not be examined for the purposes of this study.

The second key change in the law was in regards to Medicaid coverage. In 1996, PRWORA generally made non-citizen/non-legal permanent residents (LPR) ineligible for Medicaid, except for emergency care. Prior to the passage of the DRA, applicants could attest under penalty of perjury to their citizenship status, and it follows that some immigrants may have therefore made false statements regarding citizenship in order to become eligible for Medicaid. The DRA Medicaid provisions state that physical proof of citizenship must now be provided upon application or renewal of Medicaid benefits, which directly targeted recent immigrant arrivals as well as undocumented immigrants that may have been unlawfully receiving Medicaid. As with PRWORA, some states exercised the option to continue to provide Medicaid using state funding, which negated many of the effects of the laws. Although immigrants that had obtained legal permanent resident status could still be covered through separate requirements, these provisions should nonetheless make coverage considerably more difficult for non-LPR's as well as illegal immigrants. Furthermore, some LPR's may be confused about changes in the laws and mistakenly not apply or renew their Medicaid applications, similar to the "chilling effects" described by Fix and Passel (1999), thus causing further declines among non-citizens, this being a potential unintended consequence of the laws. Ultimately, the DRA is designed to reduce Medicaid spending on noncitizens relative to citizens, and The Congressional Budget Office estimated that the DRA would reduce Medicaid spending

via the proof of citizenship requirements by $252 million dollars over the 2006-2010 periods[3].

The goal of this paper is an attempt fill a gap in the current literature by examining the effects of the DRA on immigrant welfare usage relative to that of natives. These provisions are clearly intended to reduce ineligible non-citizen use of Medicaid through tighter identification requirements. Within the framework of past research, we can continue to address the question ultimately regarding immigrant versus native welfare receipt, and importantly the effectiveness of the DRA Medicaid provisions. The remaining structure of the paper will be as follows: Section II will detail the theoretical framework for the research. Section III will present the empirical analysis portion of the paper. The data to be analyzed will be drawn from the 2005 and 2007 March Supplement of the Current Population Survey (the years immediately before and after the DRA went into effect), and descriptive as well as multivariate regression analyses will be performed on the data. Section IV will draw conclusions from the analyses that may hold significant policy implications for any future welfare reform laws as well as potential immigration reform laws.

Theoretical Framework

This paper borrows a model developed by Borjas (2002) originally used to determine the effects of PRWORA on immigrant welfare use by estimating a difference-in-differences on the periods before and after PRWORA. The model is adapted here to similarly test effects of the DRA on immigrant Medicaid usage. In his model, Borjas not

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[3] Source: Congressional Budget Office, "Cost Estimate: S. 1932, The Deficit Reduction Act of 2005", (2006)

only tests for the difference in usage between immigrants and natives, but also makes an important distinction between citizen and non-citizen households, and "mixed" households (containing both citizens and non-citizens) to explain welfare propensities. In the context of this study, the unit of observation is the individual rather than households, as the changes in Medicaid laws specifically target individuals with proof of citizenship. Therefore, "mixed" status does not apply, so only citizen and non-citizen qualifications are considered. Similar to PRWORA, the DRA clearly aims to reduce ineligible non-citizen coverage. Borjas correctly predicted that non-citizen households would experience the largest decline in welfare use post-PRWORA (Borjas 2002). Similar outcomes are expected in regards to Medicaid coverage post-DRA.

The other factors taken into consideration in this model are demographic characteristics of the individual. These characteristics control for qualifications that are found to be significant in past research, such as cohort effects and levels of human capital. Borjas (1999a) shows that newer waves of immigrants are found to be more likely to receive welfare payments, as are immigrants with lower levels of education due to declining skills among more recent immigrant waves as the national origin mix of immigrants has shifted from Europeans to Latin Americans during the past fifty years. Elderly and children immigrants are also more likely to be eligible for Medicaid, so this is controlled for as well. Citizens (including native and naturalized citizens) are the reference group, as this group should presumably have no negative effects from the laws assuming that they can show documentation of citizenship. Effectively, these demographic controls show the impact on non-citizens relative to that of demographically comparable citizen Medicaid recipients.

The previous research by Borjas gives a clear prediction behind the expected outcomes of the welfare reform laws. PRWORA reduced welfare eligibility amongst non-citizen households by the largest amount, and therefore reduced the probability that non-citizen households would receive welfare benefits. The DRA is very much an extension of these laws, as non-citizens again are targeted directly. Since the DRA now requires proof of citizenship for all citizens, those who potentially received Medicaid under false pretenses as well as newer immigrant arrivals should be made ineligible[4]. Examples of such types of immigrants could be those who had not yet received LPR status, as well as illegal immigrants. Therefore, if the laws were effective, Medicaid coverage should see a general decline among non-citizens. The combined effect on the two welfare programs should show a decline among both mixed and non-citizen households relative to citizen households.

Legal Permanent Residents and Illegal Immigrants

It is important to note here that, though the DRA is expected to have negative effects on non-citizens, it's effects on legal permanent residents and illegal immigrants pose interesting problems for the research, which may be addressed in future efforts on the topic. First, it should be mentioned what the definition of a legal permanent resident is. According to the U.S. Department of Homeland Security[5] :

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[4] It is important to note again that the eligibility requirements for LPR's did not change, so any decline in Medicaid coverage may not be fully explained by changes in LPR usage without further hypotheses.

[5] Source: U.S. Department of Homeland Security, U.S. Citizen and Immigration Services. "Green Card: Permanent Residence". http://www.uscis.gov. Last Accessed: 03/20/11.

"A permanent resident is someone who has been granted authorization to live and work in the United States on a permanent basis. As proof of that status, a person is granted a permanent resident card, commonly called a green card".

Legal permanent residents are granted a green card after their first five years of living in the U.S., before which they are not eligible for Medicaid coverage. After receipt of the green card, LPR's are subject to a separate set of requirements in terms of Medicaid coverage. These include all of the eligibility requirements that citizens are subject to, as well as sponsor deeming, which accounts for the income of the legal immigrants sponsor to further determine Medicaid eligibility[6]. Furthermore, individual states are granted power to extend the five-year ban on Medicaid eligibility if they so choose up to 10 years, conditional on the continuous employment of the immigrant, or else the state may require naturalization as well[6]. These are important considerations in terms of LPR Medicaid receipt, as it may incentivize non-LPR's that do not wish to wait for green card receipt to falsify claims regarding their citizenship. The law would serve its intended purpose in excluding these people from Medicaid coverage. However, as previously mentioned, LPR's are *not* considered citizens, thus any reductions in eligible LPR Medicaid coverage due to chilling effects and confusions about eligibility would be an adverse side effect of the laws.

Illegal immigrants present further problems with the study, as it is obviously difficult not only to identify these immigrants in the data due to the undocumented nature of such immigrants, but also to furthermore quantify

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[6] Source: Kaiser Commission on Medicaid and the Uninsured. "Medicaid and SCHIP Eligibility for Immigrants". The Henry J Kaiser Family Foundation. April 2006.

reductions in illegal immigrant usage of Medicaid. Due to these complications, it is hard to draw any accurate conclusions regarding reductions in illegal immigrant Medicaid coverage due to false citizenship claims. However, one inference can be made here. If the laws do in fact show reductions in noncitizen Medicaid receipt, this presents two possibilities for illegal immigrants affected by the laws. Those who were already receiving Medicaid could not renew their coverage upon expiration, or those who were not covered but planned to apply through false citizenship claims were now effectively excluded from coverage. As a result, if such reductions are likely not fully documented, any reductions in Medicaid receipt by illegal immigrants due to the DRA represent a *lower bound* of the potential total reductions.

The Empirical Model

The model developed by Borjas (2002) is a "difference-in differences" specification, and is adapted to meet the needs of this research as follows:

(1) $\qquad p_{ij} = X_{ij}\beta + \alpha\, t_{ij} + \gamma NonC_{ij} + \delta NonC_{ij}t_{ij} + \lambda_j + \varepsilon_{ij}$

Here, p_i represents the probability that individual *i* in state *j* will receive Medicaid benefits[7]. *X* represents a vector of socioeconomic characteristics for the individual[8]. The variable *t* indicates the time period, and is set equal to one if the data comes from 2007 or zero if the data comes from 2005. *NonC* is a dummy variable set to one if the individual

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[7] The reason for the dependant variables definition is explained further in the empirical estimation section of the paper.

[8] These characteristics include age, gender, and educational attainment of the household head, as well as the presence of persons over age 64 and/or under age 18 within the household, and the year of migration of the household head (this is separated into several cohorts: before 1980, 1980-1990, 1990-1995, 1995-2001, and after 2002).

is a non-citizen. The fixed effect variable λ is a vector of dummy variables indicating the state of residence of the individual. The coefficient δ is the difference-in-difference estimator, this being the causal effect of the DRA on changes in non-citizen Medicaid coverage relative to changes in citizen coverage. The estimate of δ is expected to be negative, as the DRA should make non-citizen individuals less likely to receive Medicaid relative to demographically comparable citizens. It is important that the state of residence is controlled for, as some individual states did not comply with the DRA laws immediately.

Data Description

The data for this study is obtained from the 2005 and 2007 March Supplements of the Current Population Survey. These surveys are conducted annually by the census, and are ideal in this situation because they contain immigration, citizenship, demographic and welfare participation data for over 200,000 individuals in each of the survey years. The large number of observations and the sampling methods employed by the Census Bureau provide a representative sample of the civilian noninstitutional population, and therefore the results of this study for each of the two data sets should be significant in terms of their relation to the actual U.S. population.

For the purposes of this study, the data for 2005 and 2007 are pooled into a single data set. When looking at the relevant average demographic characteristics of citizens and noncitizens used by the model, a paired T-test can show that the differences between the two groups from the 2005 CPS are all statistically significant, with the exception of two dummy variables indicating the level of education (Table 1). Based on this, the

choice of difference-in-differences methodology is reinforced. During the years 2005-2007, a descriptive analysis of the data can show that the percentage of non-citizens receiving Medicaid declines by approximately two percent, while citizen use of Medicaid does not show any significant changes, remaining roughly at twelve percent (Table 2). These statistics suggest that the DRA did in fact decrease non-citizen use of Medicaid relative to that of citizens[9]. Based on these numbers, a diagram showing the graphical interpretation of the differences-in-differences effect can be constructed (Figure 1).

Empirical Estimation

The empirical estimation of this model provides the expected results (Table 3). The coefficient δ is negative and significant, indicating that non-citizens were slightly more than one percent less likely to receive Medicaid relative to citizens. The coefficient is not necessarily large, so therefore the DRA may have only been effective in excluding a small number of non-citizens that were ineligible for coverage. This is logical, as the laws should only exclude a relatively small portion of immigrants, namely the undocumented. The model itself produces relatively low adjusted r-squared values of 6.94 percent, although the high F-value shows that the overall model is statistically significant. The low adjusted r-squared could be indicative of other significant demographic variables that are not included in the model, as well as the extremely large sample size.

Based on these empirical results, we can reject the null hypotheses that the causal variable δ is zero, and therefore the period before and after the DRA reduced non-citizen Medicaid coverage by one percent. This certainly points to the conclusion that the law

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[9] See Appendices at the end of the paper for the Means of the Data Sets.

was in fact effective in accomplishing its purpose. The difference-in-difference estimator validates the possibility that these decreases are due to the DRA as we only consider the time period *directly* before and after the law. Thus, other economic changes that could influence Medicaid coverage are assumed to be constant. There is a possibility, however, that the reduction in Medicaid coverage might have an alternate explanation within the context of the DRA. As mentioned previously, an important possibility to consider is the potential "chilling effect" of these laws. Some non-citizen immigrants may have been perfectly eligible (such as LPR's) to receive Medicaid, but they did not understand the changes in the laws and thus did not apply or renew their Medicaid coverage. This could be an important unintended consequence of the laws to consider, and could be approached in future analysis by controlling for LPR's versus other non-citizens. Another possibility is that some immigrants that obtained citizenship did not have the necessary documentation to obtain coverage. Ross (2007) hypothesizes that the proof of citizenship laws may have also harmed native-born citizens that did not have access to documentation, namely children or low-income individuals. The empirical analyses here do not show that, even if this was the case, this happened on a significant level.

Similarly to PRWORA, it turns out that some states also continued to provide Medicaid coverage to immigrants made ineligible for Medicaid from the DRA, the most notable of these being California. According to the National Conference of State Legislatures (2007) "California…[in 2006] affirms that counties, cities and hospital districts, at their own discretion, can provide health care and other services to all residents

(regardless of citizenship)" [10]. This could very well serve to undermine some of the potential cost-cutting effects of the DRA, especially as the foreign born population is over one-quarter of California's total population[11].

It is also necessary to discuss the major limitations of the model. The adjusted r-squared values are fairly low for these models, which means that important explanatory variables may still be omitted from the model. It is possible that further demographic controls could have been used to correct for any possible issues which are important in making the reference group (citizen households) more accurately defined demographically, relative to noncitizens. Also, there is the possibility of endogeneity in the model. For example, such demographic controls such as educational attainment could be a function of welfare receipt, just as welfare receipt could be a function of educational attainment. A better analysis would use the two-stage least-squares methodology to correct for such problems. Furthermore, Borjas included a fixed effect variable defining the country of origin of the head of household, which was not included in this model. It could also be beneficial to include such a measurement in future efforts.

Conclusions

As previously noted, the Medicaid provisions of the DRA requiring proof of citizenship are aimed at reducing non-eligible immigrant usage of Medicaid, these being non-citizen, non-LPR immigrants, though this aim is not explicitly stated as such. In this

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[10] The National Conference of State Legislatures. Immigrant Eligibility for Health Benefits: Federal Action and State Laws in 2005-2006. (http://www.ncsl.org/default.aspx?tabid=13144) 2007.

[11] The 2000 U.S. Census shows the foreign-born population to be 26.2% of the California population (http://quickfacts.census.gov/qfd/states/06000.html)

regard, the law was successful as shown by this study. In summary, we can hypothesize that the DRA affected noncitizen immigrant usage of Medicaid for two potential reasons:

1. Noncitizen/non legal permanent residents had previously falsified claims of citizenship to obtain Medicaid coverage, and were not able to continue to do so without physical documentation of citizenship status.

2. Legal permanent residents did not fully understand their own continuing eligibility in lieu of the DRA, and thus did not apply for or renew their Medicaid benefits.

Furthermore, it should be considered that the reductions in noncitizen usage of Medicaid from the period before and after the DRA represents a potential lower bound of the actual reduction because of the identification problems associated with illegal immigrants.

This study only represents a portion of the overall policy analysis. These results could be supplementary in a more complete cost-benefit analysis of the effects of the DRA on Medicaid. An important counter-argument to consider would be that the potential administrative costs could increase as a result implementing these provisions; for example the additional resources required in verifying citizenship documents of those applying for Medicaid. These costs could in turn reduce the actual resources saved by the DRA. Factors such as these should be taken into consideration in a more complete analysis.

On a larger scale, this analysis questions the equity of Medicaid coverage. As resources are limited, we must consider the best way to allocate them. To determine exactly *who* should be made eligible for Medicaid or any other welfare benefits depends on the overall national attitude toward welfare and immigration. Welfare reform, as

shown by this research alongside past studies regarding PRWORA, can be effective in reducing immigrant welfare expenditures. Yet, the trade-off lies in the unintended consequences of such laws such as chilling effects. In an effort to quantify potential adverse effects of the DRA, further studies could control for LPR's and non-citizen, non-LPR's separately to show the potential "chilling" effects of the DRA on those non-citizens who may have been actually eligible for Medicaid coverage.

Borjas (2002) suggests that, in response to the effects of PRWORA, the answer does not lie in denying assistance to those who need help, be it immigrants or otherwise. A better option may be to reform *immigration* policy rather than welfare policies if the goal is to reduce the number of potentially welfare dependant immigrants that enter the country. One example of such a policy would be the "point-system" employed by Canada, in which immigrants are allowed entry based on a set of determined characteristics.

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Table 1: Paired T-Test of Citizens and Noncitizens from 2005 Current Population Survey				
Variable	**Description**	**Citizen Means**	**Non-Citizen Means**	**Paired T-Test Results**
Medicaid	1=Medicaid 0=No coverage	0.1212 (0.3264)	0.1037 (0.3049)	-3.50***
Sex	1= Male 0= Female	0.48412 (0.4997)	0.508 (0.4999)	5.06***
P_old	Persons > 64	0.1022 (0.3030)	0.0484 (0.2145)	-21.45***
P_young	Persons < 18	0.3148 (0.4644)	0.133 (0.3396)	-45.04***
a_age	Age	33.8629 (22.2246)	34.677 (15.8674)	3.09***
Ednodip	No Diploma	0.4028 (0.4905)	0.4963 (0.4999)	23.54***
Eddip	Diploma	0.2192 (0.4137)	0.2198 (0.4141)	-1.10
Edsomecol	Some College	0.1368 (0.3437)	0.0829 (0.2758)	-19.53***

Edba	Bachelors Deg	0.1817 (0.3857)	0.1392 (0.3462)	-12.81***
advdeg	Advanced Deg	0.0593 (0.2362)	0.0617 (0.2407)	1.63

(Standard Errors in Parentheses)
***: Significance at 99% level
Citizens=386938, Non-Citizens=30126
Data: 2005 Current Population Survey March Supplement

Table 2. Medicaid Participation Rates from CPS March Supplements 2005-2007			
	2005	**2006**	**2007**
Citizen	12.169%	12.166%	12.078%
Non-Citizen	11.192%	10.199%	9.587%

Figure 1: Change in Medicaid Participation 2005-2007
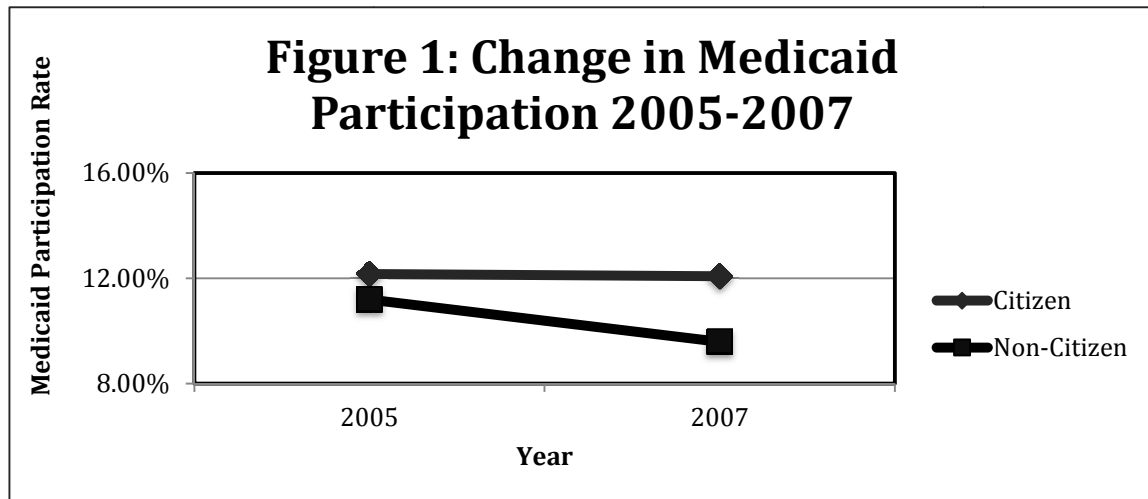
Table 3: Regression Results			
	(1)	(2)	(3)
Year	-0.0009 (0.00104)	0.00072418 (0.00101)	0.00076 (0.00101)
Nonc	-0.00977 *** (0.00278)	-0.02440 *** (0.00364)	-0.02794 *** (0.00363)
Nonc*Year	-0.01514 *** (0.00389)	-0.01177 *** (0.00379)	-0.01148 *** (0.00377)
Demographic Controls	No	Yes	Yes
State Fixed Effects	No	No	Yes
Adj. R^2	0.0002	0.0584	0.0696
F Value	33.55	1990.45	495.05

(Standard Errors in Parentheses)   n = 417064
*   : significance at the 10% level
** : significance at the 5% level
***: significance at the 1% level

SAS Code for "Immigrants, Medicaid, and the Deficit Reduction Act", by Nicholas Fritsch.

```
proc sql;
create table nber.cps2005i as select a_age, a_exprrp, a_hga, a_sex, h_seq, h_year, h_type,
hfin_yn, hfoodsp, hhpos, hmcaid, hpaw_yn, paw_typ, hpawval, pehspnon, penatvty, peridnum,
prcitshp, prdtrace, prpertyp, peinusyr,
h_numper, gestfips, caid, htotval from nber.cpsmar05
;
quit;
data nber_new.cps2005ind;
set nber.cps2005i;
        if htotval <= 0 then hincome = 1; else hincome = htotval; lnhincome = log (hincome); if
        caid = 1 then medicaid = 1; else medicaid = 0; if prcitshp < 5 then cit = 1; else cit = 0; if
        cit = 0 then nonc = 1; else if cit = 1 then nonc = 0; if paw_typ = 1 then tanf_typ = 1; else
        tanf_typ = 0; if a_age >= 65 then p_old = 1; else p_old = 0; if a_age < 18 then p_young =
        1; else p_young = 0; if gestfips = 01 then al = 1; else al = 0; if gestfips = 02 then ak = 1;
        else ak = 0; if gestfips = 04 then az = 1; else az = 0; if gestfips = 05 then ar = 1; else ar =
        0; if gestfips = 06 then ca = 1; else ca = 0; if gestfips = 08 then co = 1; else co = 0; if
        gestfips = 09 then ct = 1; else ct = 0; if gestfips = 10 then de = 1; else de = 0;
        if gestfips = 11 then dc = 1; else dc = 0; if gestfips = 12 then fl = 1; else fl = 0;
        if gestfips = 13 then ga = 1; else ga = 0; if gestfips = 15 then hi = 1; else hi = 0;
        if gestfips = 16 then id = 1; else id = 0; if gestfips = 17 then il = 1; else il = 0;
        if gestfips = 18 then in = 1; else in = 0; if gestfips = 19 then ia = 1; else ia = 0;
        if gestfips = 20 then ks = 1; else ks = 0; if gestfips = 21 then ky = 1; else ky = 0;
        if gestfips = 22 then la = 1; else la = 0; if gestfips = 23 then me = 1; else me = 0;
        if gestfips = 24 then md = 1; else md = 0; if gestfips = 25 then ma = 1; else ma = 0;
        if gestfips = 26 then mi = 1; else mi = 0; if gestfips = 27 then mn = 1; else mn = 0;
        if gestfips = 28 then ms = 1; else ms = 0; if gestfips = 29 then mo = 1; else mo = 0;
        if gestfips = 30 then mt = 1; else mt = 0; if gestfips = 31 then ne = 1; else ne = 0;
        if gestfips = 32 then nv = 1; else nv = 0; if gestfips = 33 then nh = 1; else nh = 0;
        if gestfips = 34 then nj = 1; else nj = 0;
        if gestfips = 35 then nm = 1; else nm = 0; if gestfips = 36 then ny = 1; else ny = 0;
        if gestfips = 37 then nc = 1; else nc = 0; if gestfips = 38 then nd = 1; else nd = 0;
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        if gestfips = 39 then oh = 1; else oh = 0; if gestfips = 40 then ok = 1; else ok = 0;
        if gestfips = 41 then or = 1; else or = 0; if gestfips = 42 then pa = 1; else pa = 0;
        if gestfips = 44 then ri = 1; else ri = 0; if gestfips = 45 then sc = 1; else sc = 0;
        if gestfips = 46 then sd = 1; else sd = 0; if gestfips = 47 then tn = 1; else tn = 0;
        if gestfips = 48 then tx = 1; else tx = 0; if gestfips = 49 then ut = 1; else ut = 0;
        if gestfips = 50 then vt = 1; else vt = 0; if gestfips = 51 then va = 1; else va = 0;
        if gestfips = 53 then wa = 1; else wa = 0; if gestfips = 54 then wv = 1; else wv = 0;
        if gestfips = 55 then wi = 1; else wi = 0; if gestfips = 56 then wy = 1; else wy = 0;
        if a_hga < 39 then ednodip=1; else if a_hga >= 39 then ednodip=0; if a_hga = 39 then
        eddip=1; else if a_hga ^=39 then eddip=0; if a_hga =40 then edsomcol=1; else if a_hga
        ^=40 then edsomcol=0;
        if a_hga >40 and a_hga <=43 then edba=1; else edba=0; if a_hga > 43 then advdeg = 1;
        else advdeg = 0;
        if a_sex=2 then sex=0; else if a_sex =1 then sex = 1; if penatvty = 57 then native = 1; else
        native = 0; if native = 0 then immigrant = 1; else immigrant = 0; if penatvty =192 or
        penatvty = 195 or penatvty = 212 or penatvty = 221 or penatvty = 242 or penatvty = 337
        or penatvty = 417 or penatvty = 449 or penatvty = 462 or penatvty = 468 then refugee =
        1; else refugee = 0; if peinusyr <= 6 then yrbef1980 = 1; else yrbef1980 = 0; if peinusyr >
        6 and peinusyr <= 11 then yr80_89 = 1; else yr80_89 = 0; if peinusyr >=12 and peinusyr
        <=14 then yr90_95 = 1; else yr90_95 = 0; if peinusyr >= 15 and peinusyr <=17 then
        yr96_01 = 1; else yr96_01 = 0; if peinusyr >= 18 then yraft02 = 1; else yraft02 = 0; if
        h_year = 2004 or h_year = 2005 then year = 0; else year = 1; if immigrant = 1 and
        refugee = 1 then immref = 1; else immref=0; ncyear = nonc * year; run; quit;
        data nber_new.cps05_07; set nber_new.cps2005ind nber_new.cps2007ind; run;
*regression model, me is intercept state!;
ods pdf;
proc means data = nber_new.cps2005ind;
title '2005 noncitizen medicaid';
        where nonc = 1; var medicaid; run;
proc means data = nber_new.cps2005ind;
        title '2005 cit';
        where nonc = 0;
        var medicaid;
        run;
proc means data = nber_new.cps2006ind;
        title '2006 nonc';
        where nonc = 1; var medicaid;
        run;
proc means data = nber_new.cps2006ind;
        title '2006 cit';
        where nonc = 0;
        var medicaid;
        run;
proc means data = nber_new.cps2007ind;
        title '2007 nonc';
        where nonc = 1;
        var medicaid;
        run;
proc means data = nber_new.cps2007ind;
        title '2007 cit';
        where nonc = 0;
```

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        var medicaid;
        run;
ods pdf close;
ods pdf;
proc reg data = nber_new.cps05_07;
        title 'Medicaid Reciept Probability';
        model medicaid = nonc year ncyear;
        run;
proc reg data = nber_new.cps05_07;
        title 'Medicaid Reciept Probability with Demographic Controls';
        model medicaid = a_age sex eddip edsomcol edba advdeg yr80_89 yr90_95 yr96_01
        yraft02 lnhincome nonc year ncyear; run; quit;
proc reg data = nber_new.cps05_07;
        'Medicaid Receipt Probability: With Demographics Controls and Effects';
        medicaid = a_age sex eddip edsomcol edba advdeg yr80_89
        yr90_95 yr96_01 yraft02 lnhincome nonc year ncyear al ak az ar ca co ct de dc fl ga hi id
        il in ia ks ky la md ma mi mn ms mo mt ne nv nh nj nm ny nc nd oh ok or pa ri sc sd tn tx
        ut vt va wa wv wi wy;
        run;
        quit;
ods pdf close;
Ods pdf;
proc means data = nber_new.cps05_07;
        title 'Citizen Means 2005-2007 Pooled';
        var medicaid cit nonc p_old p_young ednodip eddip edsomcol edba advdeg htotval sex
        native immigrant yrbef1980 yr80_89 yr90_95 yr96_01 yraft02;
        where nonc = 0;
        run;
proc means data = nber_new.cps05_07;
        title 'Noncitizen Means 2005-2007 Pooled';
        var medicaid cit nonc p_old p_young ednodip eddip edsomcol edba advdeg htotval sex
        native immigrant yrbef1980 yr80_89 yr90_95 yr96_01 yraft02;
        where nonc = 1;
        run;
ods pdf close;
ods pdf;
proc ttest data=nber_new.cps2005ind;
        class cit;
        var medicaid a_age sex p_old p_young ednodip eddip edsomcol edba advdeg;
        run;
ods pdf close;
```