Impact of Medicaid Policy Changes on Immigrant Parents[*]

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Abstract

During the 1990s and early 2000s many states expanded Medicaid eligibility for parents, particularly after the 1996 welfare reform. At the same time welfare reform also put in place policies that limited the eligibility of recent immigrants for public programs, including Medicaid. This paper evaluates the effects of these changes in Medicaid eligibility policy on the private and public health insurance coverage of immigrants as well as the overall insurance rate. It also looks at the effect on health care use and measures of health status. The findings indicate a significant increase in Medicaid coverage and an increase in the proportion insured overall, with negligible crowd-out of private insurance. There is also an increase in the use of health care services and improved health status, particularly for foreign born citizens. In the case of longer tenure permanent residents, there is a diminished response to Medicaid eligibility changes possibly due to a "chilling" effect.

Keywords: Health Insurance, Health Policy, Immigrants

JEL Classification: I12, I13, I18, J15

1 Introduction

Immigrants are a substantial portion of the population in the United States and this proportion has grown over time. The immigrant share of the U.S. population increased from 11.1% in the year 2000 to 12.9% in 2010 (Nwosu et al., 2014). However, a relatively large percentage of this group, compared to native born citizens, is represented among those in poverty and without health insurance. As of 1999, one-third of immigrants did not have health insurance and 16.8% lived in poverty (Camarota 2001). This uninsured rate varies by immigration status and length of stay.In the case of recent immigrants (noncitizens who have lived in the United States for six years or less), 52% of those in this group had no health insurance in 2003. In the same year, 43% of noncitizen immigrants with a longer tenure and 21% of naturilized citizens were also uninsured. This compares with a 15% rate for native citizens (Kaiser Family Foundation 2004).

One of the possible major contributors to the relatively low rate of insurance for immigrants is the 1996 Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA). This welfare reform legislation established new eligibility rules for various public programs such as Medicaid. In addition to meeting all other requirements, recent immigrants who were permanent residents had to have been in the U.S. for at least 5 years before they could be eligible for federally funded Medicaid coverage. Immigrant citizens were not subject to this additional constraint. In response to

this change, a number of states provided health coverage to some of these immigrants that were not eligible for federally funded Medicaid, without federal funding. This led to a situation where permanent residents were eligible for health insurance in some states and not eligible in others.

This study looks at the effect of being Medicaid eligible on the health insurance coverage, health care use and general health of immigrants. The study also estimates the level of crowd-out and examines for evidence of "chilling effects". The segment of the immigrant population that is eligible for Medicaid coverage has evolved over time due to changes in income eligibility levels as well as the differences in state sponsored coverage. In particular the study focuses on the effect for permanent residents and citizens who are parents to dependent children (children below age 18). Using repeated cross sections from the Survey of Income and Program Participation (SIPP) data, published by the United States Census Bureau, the effect over the 1996-2004 period is examined. The sample consists of 2492 foreign born citizens and 3252 permanent residents. The variation in eligibility across states and over time is suitable for measuring the effects.

The results indicate a Medicaid take-up rate of 14.9-20.7 percentage points for the immigrant population made eligible for Medicaid. There is also minimal evidence of crowd-out. The results for health care utilization show a general increase in the use of medical services, while there is some evidence of an improvement in health status for foreign born citizens in particular. The results for permanent residents provide evidence of a "chilling

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effect" on Medicaid enrollment.

2 Previous Literature

A number of studies look at the effect of public insurance eligibility on the take up of such insurance, as well as its effect on health insurance overall and any possible crowd out effects on private insurance. Aizer and Grogger (2003) examine the effect of Medicaid eligibility expansions to low income parents on health insurance coverage. They find that these expansions increased Medicaid coverage of mothers and their children and had small effects on private coverage. Busch and Duchovny (2005) also look the effect of increasing the income eligibility limits on Medicaid coverage of parents. In addition they examine its effect on health care utilization. The authors find an increase in the probability that the eligible adults are insured and an increase in the use of health care services. This rise in public insurance coverage occurred in the aftermath of welfare reform, which led to a decrease in welfare caseloads. The decrease in caseloads could lead to a drop in Medicaid enrollment even when these individuals might still be eligible due to administrative issues or unfamiliarity with new procedures. Kaestner and Kaushal (2003) look at the effect of changes in the welfare caseload on health insurance coverage of single mothers and their children. They find that reduction in the caseload led to a relatively small drop in Medicaid and overall insurance coverage, and a rise in private coverage. These results show that Medicaid expansions

were still effective at increasing enrollment even in the aftermath of welfare reform. Studies of eligibility expansions to children also find similar results. Lo Sasso and Buchmueller (2004) look at the effects of expanding eligibility to children through the State Children's Health Insurance Program (SCHIP) and find an increase in coverage of 9% among those eligible.

There have also been studies with a focus on changes in public insurance eligibility and its effect on the immigrant population in particular. Kaushal and Kaestner (2005) look at the effect of 1996 welfare reform on health insurance coverage of foreign and US born families headed by low-educated women. They find that welfare reform adversely affected their health insurance coverage. Lurie (2007) looks at the effect of the eligibility changes (due to welfare reform) on the health insurance coverage of children of non-permanent residents. Lurie finds that the proportion of uninsured children of non-permanent residents increased by 10 percentage points relative to the children of permanent residents. Buchmueller et al (2007) examines the effect of SCHIP expansions on the insurance coverage of children with foreign born parents and they find that this group has a similar take-up rate as the children of native born parents. Bronchetti (2014) also looks at the effect of SCHIP and Medicaid expansions on the insurance coverage of children with foreign born and native born parents, as well as its effect on health care use. She finds a higher degree of insurance takeup among the children of immigrants than the children of the native born as well as greater use of health care and some evidence of improvement in measures of health. This

greater rate of takeup could be due lower rate of insurance coverage among children of immigrants. The difference in results between the Buchmueller et al and Bronchetti papers could also be due to a difference in the instrument used. Both papers use the simulated eligibility instrument (which will be discussed further below) but Bronchetti incorporates immigration status into the instrument. Bronchetti obtains similar results to Buchmueller et al (no significant difference between the takup rates of children with native born parents and children with foreign born parents) when immigration status is not included in the construction of the instrument.

The "chilling effect", which can be described as the indirect effects of a stricter or "icy" policy environment (Watson 2014) on Medicaid enrollment of immigrants, has also been studied. Kaushal and Kaestner (2005) find evidence of a "chilling effect" for foreign born women. Lurie (2008) and Watson (2014) also provide evidence of a "chilling effect" for citizen children of noncitizens. This is an indication of the far reaching effects of these policies post welfare reform.

This paper contributes to this literature by examining the effects of changes in Medicaid eligibility for immigrant parents on their receipt public and private insurance, as well as its effect on their health and health care use. The size of a crowd-out effect is estimated and the presence of a "chilling effect" for adult immigrants is also discussed.

3   Background

The Medicaid insurance program was established in 1965. Historically, eligibility for the program was limited to those receiving assistance under the Aid to Families with Dependent Children (AFDC) program, disabled adults receiving Social Security Insurance (SSI) and the aged who qualified due to lower income. Over the following decades, there has been an evolution in Medicaid eligibility criteria for different groups such as lower income minors, pregnant women and lower income parents.

The eligibility expansions for pregnant women and children began in the 1980s. This decade was characterized by a series of legislated state options and mandates that expanded Medicaid eligibility for these groups. The pattern of legislation over this period could be described as "initial federal permission to expand their programs, followed within a few years with mandates for all states to cover these groups" (Gruber 2000). The most extensive of these acts for pregnant women and young children were the Omnibus Budget Reconciliation Acts (OBRA) of 1987 and 1989. OBRA 1987 gave states the option to provide coverage for pregnant women and infants up to 185% of the poverty level. OBRA 1989 mandated coverage of pregnant women and children under age 6 up to 133% of the poverty level. In the case of older children (age 6-18), the Omnibus Budget Reconciliation Act of 1990 mandated coverage up to 100% of the poverty level for all those born after September 30, 1983.

In comparison, the early coverage expansions for parents did not keep pace with those for children (Dubay and Kenney 2003). Historically, parents qualified for Medicaid coverage if they also received cash assistance under the AFDC program. This led to limited Medicaid enrollment by this group, as the income eligibility standards for AFDC were relatively low. The major expansions in eligibility for parents occurred after the passage of the Personal Responsibility and Work Opportunity Act (PRWORA) of 1996.

PRWORA replaced the AFDC program with the Temporary Assistance to Needy Families (TANF) program. It also severed the link between Medicaid and welfare receipt i.e. eligibility for Medicaid and AFDC/TANF (welfare) was considered separately. Following this delinking of Medicaid and welfare there were further expansions in Medicaid eligibility for children. The most notable of these is the Children's Health Insurance Program (CHIP) established in 1997. CHIP programs allowed states to provide health insurance coverage to children from families with incomes above the Medicaid income eligibility level.

There were also expansions in parental eligibility after the 1996 welfare reform. With the delinking of Welfare and Medicaid in the 1996 reform, a new category for coverage known as the family coverage or Section 1931 category was created. Under this coverage category, states had to provide Medicaid coverage to families with children if they met the rules for eligibility that were in place on May 18, 1988. However, all states continued to provide coverage to families that would have been eligible under the rules in effect

on July 16, 1996 at a minimum (Broaddus et al 2002). Beyond that, states were also granted broad flexibility to expand their income eligibility limits under this coverage category and a number of states did so.

Another method used by states to expand Medicaid parental coverage was by the use of research and demonstration (Section 1115) waivers. States could secure the Medicaid Section 1115 waiver if they could demonstrate that the proposed eligibility expansion would be budget neutral to the federal government. The two avenues (Medicaid Section 1931 or Section 1115) were the two methods by which states expanded parental coverage after welfare reform.

The welfare reform legislation of 1996 (PRWORA) also established new standards for determining immigrant eligibility for publicly funded programs. It placed additional restrictions on participation in these programs by immigrants, beyond those faced by citizens. The law distinguished between immigrants that were in the country before August 22nd 1996 (pre-enactment immigrants) and those who arrived from that date onward (post-enactment immigrants). Pre-enactment immigrants were still eligible for coverage under federally funded Medicaid, although this was at the option of individual states. On the other hand, post-enactment immigrants were not eligible for federally funded Medicaid for their first five years in the United States. After the five year wait, these immigrants are then eligible for coverage at the option of the state. Naturalized citizens were treated the same as native born citizens in determining eligibility for Medicaid.

Virtually all states continued to provide Medicaid coverage to pre-enactment immigrants. For post-enactment immigrants there is more variation across states in the choice to provide coverage. For this group there is no federal funding for Medicaid and so any coverage was fully funded by states in the first five years. The coverage choices made by California, New York and Texas illustrate this variation across states and over time. California continued to cover post-enactment immigrant parents with state funds while New York did not begin covering this group until 2001. Texas on the other hand never covered post enactment immigrants.

Thus, in the case of immigrants there were two opposing forces, a general increase in the medicaid income eligibility levels across states and additional enrollment restrictions. Increases in income eligibility levels would tend to increase enrollment in Medicaid while a more restrictive policy environment which would tend to decrease immigrant enrollment. This article looks at the response of immigrant parents in particular, due to their unique circumstances, to these changes in Medicaid eligibility.

Figures 1 and 2 show the change in proportion of the lower income population (those in households with income equivalent to 200% of the poverty level) that are eligible for Medicaid coverage and the change in the percentage covered by Medicaid. The figures indicate a general rise in eligibility for this population, particularly among foreign born citizens. In 1996, about 33% of the population was eligible and this proportion rose to 45% by 2004. However this increase in eligibility does not lead to an initial rise in Medicaid cover-

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age as shown in figure 2. There is a fall in Medicaid coverage between 1996 and 2001 for permanent residents, with a rebound in coverage by 2004. This drop in coverage could be due to changes in methods of access for Medicaid and also the limitations placed on access to coverage post welfare reform. As discussed earlier, Kaushal and Kaestner (2005) study these changes in Medicaid access due to welfare reform and indeed find a decrease in coverage for immigrants in the time period immediately following reform compared to the pre-reform period. This paper focuses on changes in eligibility only in the post reform time period.

4 Data

The primary data for this study is obtained from the Survey of Income and Program Participation (SIPP). SIPP is a national sample of the civilian non-institutionalized population.It consists of panels which take place over four years. Data from the 1996, 2001 and 2004 panels is used. Each panel is a multistage stratified sample of the US population. An individual is interviewed a maximum of 12 times over a four year period on core topics such as family income, composition and participation in various government programs over the past 4 months. In addition these individuals are also asked topical questions about certain issues in some interviews. Thus, the core questions are asked in every interview (known as a wave) while each set of topical questions is asked in selected waves. The topical modules used in this

paper are the Medical Expenses and Utilization of Health Care module and the Migration History module. The Medical Expenses and Utilization Module contains information on health care use and measures of general health. This topical module is administered roughly once a year. The Migration history module contains information on the immigration status of respondents as well as their date of arrival if foreign born. This topical module is administered just once per panel so the immigration status of each individual is observed just once for each panel. Thus, the analysis is limited to repeated cross sections.

The SIPP data used for this analysis consists of foreign born parents aged 18-64 currently residing in the US. This gives a sample size of 5744 unique individuals, of whom 2492 are naturalized citizens and 3252 are permanent residents. Further analysis is also conducted on the subset of the sample with income equivalent to 200% of the federal poverty level or less. This subsample consists of 2918 individuals, with 942 naturalized citizens and 1976 permanent residents. Additional explanatory variables were also obtained from other sources. For instance, unemployment rates by state and year were obtained from the Bureau of Labor Statistics website.

The data used for this analysis is limited to the 16 states with the majority of the immigrant population in the United States. These are also the states that have the most of the foreign born observations (84%) in the SIPP data. Table 1 shows the variation across states and over time in parental

income eligibility levels in 1996 and 2004 [1]. These eligibility levels pertain to adults with minor children and whom are not pregnant in the case of mothers (pregnant women are eligible under a different category). Up until 1996, there was no difference in the coverage available to citizens and permanent residents. Thus, permanent residents were eligible on the same basis as citizens in the 1996 cross section. After the 1996 welfare reform there is variation in Medicaid coverage by state during the five year bar. In 2004 for instance, states such as California, Connecticut, New York, New Jersey and Pennsylvania covered permanent residents during the bar while other states did not.

The descriptive statistics for the full sample are shown on Table 3. Those with a household income that is at most 200% of the federal poverty level (defined here as the lower income group) are more likely to be on Medicaid, less likely to have private insurance coverage or have any insurance coverage at all. The lower group is also less likely to report very good or excellent health and have lower levels of educational attainment. In terms of duration of stay, the lower income group has spent less time in the US than the full sample. Table 4 shows the descriptive statistics for all immigrant parents by citizenship status. Lower income permanent residents and citizens are more likely to be on Medicaid and less likely to carry private insurance or have any insurance at all. Comparing across the two groups, permanent

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[1]Sources include Aizer and Grogger (2003), Busch and Duchovny (2005), Guyer and Mann (1999) and publications by the Kaiser Family Foundation (2002, 2004)

residents are more likely to be uninsured and to be on Medicaid despite the restrictions due to the five year bar. A smaller proportion of those in the lower income category report that they are in very good health or better. Looking at educational attainment, the lower income groups in general report less education than the full sample groups. Permanent residents also report a shorter duration of stay in the US.

5   Emprical Specifications

This article looks at the effect of being eligible for Medicaid coverage on the take-up of Medicaid, its effect on private insurance as well as on the overall insurance status of foreign born citizens and permanents residents. Its effect on health and use of health care services is also examined. The model to estimate the outcomes of interest is shown below

$$Y_{\text{ijt}} = \beta_1 ELIG_{\text{ijt}} + \beta_2 X_{\text{ijt}} + \mu_j + \eta_t + \epsilon_{ijt}$$

where Y_{ijt} is the outcome variable for individual i in state j in year t. In the case of the health insurance coverage, the outcome variable is a dummy variable for coverage by Medicaid, private insurance or being uninsured. In the regressions for health and health care use, the dependent variables include an index for general health and a dummy variable for having had at least one medical provider(doctor, nurse or other medical provider) visit in the

last twelve months. These will be discussed in further detail below. The ELIG variable is a dummy variable that equals one if individual i is eligible for Medicaid coverage in state j during year t. X_{ijt} is a vector of personal characteristics such as age, race, sex, household income, employment status, state unemployment rate and its lag as a measure of general macroeconomic conditions. The model also includes state fixed effects (μ_j) and year fixed effects (η_t). The state fixed effects control for any state specific time invariant variables while the time fixed effects control for year specific variables across states. All standard errors are clustered at the state level.

Identification in the model comes from variation in the Medicaid eligibility for immigrants parents within states over time and the variation in income eligibility limits. It is assumed in this model that unmeasured variables that vary by state year are not correlated with the Medicaid eligibility variable.

A potential problem with this estimation strategy is endogeneity bias. It is possible that unobserved factors which affect Medicaid eligibility could be correlated with the outcomes of interest (health insurance choices, healthcare utilization and measures of health). It could be correlated with factors such as availability of insurance from other sources, earnings ability, unobserved aspects of employment and unobserved health status (Buchmueller et al 2015). For instance, poor individual health could affect income (due to reduced labor supply), thereby increasing the likelihood of eligibility for Medicaid. It would also lead to a spurious positive correlation between eligibility and use of healthcare services. In general eligibility could be a function

of individual and family characteristics that may be correlated with demand for insurance. It is also a possibility that individuals eligible for Medicaid may have characteristics that affect their utilization and their health, even after the inclusion of other controls.

To tackle these issues, this article uses a simulated instrumental variable approach that has been extensively used in prior literature[2]. To obtain the simulated IV, a random sample of observations is drawn for each year. The random sample is run through a simulation that computes the proportion of the sample that would be eligible for Medicaid in each state based on its regulations. The fraction obtained for each state is then used as an instrument for imputed Medicaid eligibility in a state. For instance, in the case of New Jersey the proportion of the random sample that would be eligible for Medicaid under New Jersey regulations is computed. This proportion is used as an instrument for the New Jersey residents in the dataset. The same random sample is then subjected to the Medicaid eligibility rules in Florida and the proportion eligible under Florida regulations functions as the instrument. This process is followed for every state in the sample. The instrument will vary with the regulatory environment in a particular state year and will be exogenous to individual attributes, health and health care use.

As noted in the background section, there were changes in policy that could lead to a rise in Medicaid coverage (higher income eligibility limits) and

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[2]Currie and Gruber (1996), Cutler and Gruber (1996), Ham and Shore-Sheppard (2005), Losasso and Buchmueller (2004), and Buchmueller et al (2007) for instance

others that could decrease Medicaid enrollment (the institution of a five year bar), particularly for recently arrived permanent residents. The instrumental variable estimate obtained would represent the "net" effect of these policy changes. To obtain the effect of the five year bar policy, a difference-in-differences estimation strategy is used. The model is shown below

$$Y_{\text{ijt}} = \theta_1 PERM_{\text{it}} + \theta_2 POST_{\text{t}} * PERM_{\text{it}} + \theta_3 X_{\text{ijt}} + \mu_j + \eta_t + \epsilon_{ijt}$$

where $PERM_{\text{it}}$ is a dummy variable indicating that individual i in year t is a recently arrived permanent resident and $POST_{\text{t}}$ is a dummy indicating observations in the post welfare reform period. The comparison group used is foreign born citizens, as they are not subject to the five year bar. The coefficient of interest is θ_2, which is an estimate of the difference in outcomes between recently arrived permanent residents and foreign born citizens in the period after the 5 year bar was instituted. A standalone parameter for the $POST_{\text{t}}$ variable is not estimated, as it is not identified in the presence of state and year fixed effects.

With these estimation procedures, the magnitude of crowd-out can also be estimated. Crowd-out is defined as the extent to which expansions in Medicaid coverage reduce private insurance coverage (Gruber and Simon 2008). Privately insured individuals that become eligible for Medicaid due to expansions could decide to drop private insurance. This will tend to depress the overall increase in health insurance coverage rates. Crowd-out in

this article as computed as the reduction in private insurance relative to the growth in public coverage (private insurance/public insurance).

To summarize the estimation strategy, i use variation in Medicaid policy over time to examine its effect on public and private insurance coverage, crowd-out as well as on health and health care use. The difference-in-differences estimates are used to isolate the impact of the five year bar policy in particular on recently arrived permanent residents, the group which is directly targeted by this policy.

6   Results

Table 5 presents results for the effect of Medicaid eligibility on receipt of Medicaid, private insurance coverage and being uninsured for the full sample. The top portion presents the ordinary least squares results while the bottom panel shows the instrumental variable estimates. The ordinary least squares (OLS) results show that being made eligible is associated with a 26.5 percentage point increase in the probability of Medicaid enrollment, a 29.1 percentage point decrease in the probability of private insurance coverage and a 3.8 percentage point increase in the probability of being uninsured. As stated above the OLS estimates are likely to be biased. The instrumental variable (IV) estimates are shown in the bottom panel of table 5. The IV estimates show a 20.7 percentage point increase in the probability of Medicaid coverage for those made eligible. It also shows a 19.5 percentage point

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decrease in the probability of being uninsured and a 1.5 percentage point decrease in the probability of private insurance coverage, although these estimates are not statistically significant. The results for those with income 200% of the poverty level and below is shown on Table 6. The OLS estimates show a 17.1 percentage point increase in Medicaid coverage and an 10.5 percentage point decrease in private coverage, as well as a 5.2 percentage decrease in the rate of the uninsured. Examining the IV estimates for this group, there is a significant 14.9 percentage point increase in Medicaid coverage for the newly eligible as well as a 16.2 percentage point decrease in the probability of being uninsured. The coefficient for private insurance is positive and insignificant. The crowd-out estimates are also computed. The OLS estimates produce crowd-out effects that are in the 61.4%-109.81% range. The IV estimates indicate no crowd-out.

A useful summary of the efficacy of these policies is a measure of what percentage of the changes in Medicaid coverage is due to changes in Medicaid eligibility. This can be computed as $(\beta_1 * \Delta ELIG_k)/\Delta M_k$, where k represents the full sample, foreign born citizens, or permanent residents. β_1 represents the coefficient of eligibility in the regressions, $\Delta ELIG$ is the change in eligibility and ΔM is the change in actual Medicaid coverage over the sample period. FOr the full sample, the results from the lower income regression indicate that 60.07% of the change in Medicaid coverage can be accounted for by changes in eligibility.

Table 10 looks at the use of health care services and measures of health

status for the full sample. The OLS estimates are significant in three of the four cases and generally have a different sign than would be expected, indicating the bias in these estimates. The IV estimates have the expected sign, although they are not statistically significant. There is a 1.3 percentage point increase in the probability of a medical provider visit and an 8.1 percentage point increase in the probability of a hospital stay for those made eligible for Medicaid. The effect of Medicaid coverage on hospital stays could theoretically by expected to be positive or negative. Increases in the use of preventive care would tend to reduce the probability of an overnight hospital stay but Medicaid eligibility could also lead to greater probability of overnight stay due to greater access to such facilities. In this case the greater ease of access leads to an increase in hospital stays. In the IV regressions for health status the coefficients are of the expected sign with an 4.1 percentage point increase in the probability of reporting good or excellent health and a significant 8.0 percentage point decrease in the probability of a sick day in the past year. Table 11 presents results for the lower income group. The OLS estimates generally have opposite signs than would be expected. The IV results indicate a significant 7.0 percentage point increase in the probability of a hospital stay for the lower income group. The other coefficients are not significant.

The rest of the discussion in this section provides estimates by immigration status. Tables 7, 8 and 9 show the results for insurance coverage by citizenship status and length of stay in the US. Table 7 presents estimates for

citizens. For the sample of all citizens, the IV results show a 42.9 percentage point increase in medicaid coverage for those made eligible. The coefficient for uninsured shows a 27.2 percentage point decrease in the proportion uninsured but this estimate is insignificant, as is the coefficient for private insurance. Columns 4-6 show the estimates when the sample is restricted to the lower income group. The eligibility coefficient shows a significant 31.3 percentage point increase in Medicaid coverage due to eligibility and a 20.2 percentage point decrease in the probability of being uninsured. These results translate to a 8.86% measure of crowd-out for the full sample of all foreign born citizens and no measured crowd-out when the sample is limited to lower income group. The computation for the proportion of changes in Medicaid coverage that is due to eligibility variation shows that 74% of the increase in coverage is due to increases in eligibility for the lower income sample.

Table 8 presents the results for permanent residents who have been in the US for at least 5 years. The instrumental variable results show no significant effects of eligibility on any insurance outcomes for the full sample or the lower income sample. The 0.017 coefficient of eligibility in the lower income sample translates to a 4.96% contribution of eligibility changes to the change in Medicaid coverage. The lack of a response to changes in Medicaid eligibility could be due to the "chilling effect". The "chilling effect" could be described as the lack of a response of immigrants to policy changes due to the stigma or fear brought about by welfare reform (Kaushal and Kaestner 2005). For instance, permanent residents entitled to Medicaid might forego it due to

fear of deportation or a blocked path to citizenship.

Table 9 shows the insurance coverage results for permanents residents who have been in the US for less than 5 years. The instrumental variables results also show no significant effect of eligibility on insurance coverage. The change in eligibility in this case accounts for 1.89% of the overall change in Medicaid coverage. The lack of an effect for this group could be due to the contrasting policies they faced. On one hand, an increase in Medicaid income eligibility levels would tend to increase enrollment, while the institution of the federal Medicaid five year bar for recent immigrants would reduce enrollment. With these two policies in place, the insignificant coefficients in Table 9 represent the zero "net" effect of these policy changes.

The results for health care use and health measures by immigration status are shown in Tables 12-14. Table 12 shows the results for foreign born citizens. When the sample is limited to the lower income group the IV estimates show significant 22.5 percentage point increase in the probability of a medical provider visit and a 35.2 percentage point decrease in the probability of reporting a sick day for those made eligible. All other estimates are insignificant. Table 13 shows results for permanent residents that have been in the US for at least 5 years. The estimates generally show no effect apart from a significant increase in hospital stays for the lower income group. The estimates for permanent residents with a shorter tenure are shown on Table 14. There are also no significant effects on health care use and health status for this group. In general, for the three groups studied these results show a

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larger impact of Medicaid policy changes on foreign born citizens, in terms of the use of health care and health improvements. Permanent residents experience a smaller impact due to the "chilling effect" for longer tenure permanent residents and the presence of opposing policies in the case of recently arrived permanent residents.

As stated above the instrumental variable estimates for recently arrived permanent residents represent the "net" effect of the Medicaid policy changes (increased income eligibility and five year bar). The difference-in-differences estimates on Tables 15 and 16 show the effect of the five year bar, with foreign born citizens as the control group. The results on Table 15 show a 7.4 percentage point decrease in Medicaid coverage for recent permanent residents compared to foreign born citizens. There is also a rise in private insurance coverage and the proportion insured but these are not significant. When the sample is limited to lower income individuals, there is a 12.3 percentage point decrease in Medicaid coverage and a 10.7 percentage point increase in the probability of being uninsured compared to citizens. This translate to a 46% estimate of crowd out for the full sample but there is no crowd-out when the sample is limited to lower income individuals, the group most likely to be bound by the five year bar. Finally, there is no significant difference in the use of health care services and in measures of health, as observed in Table 16.

In summary, the results indicate an increase in Medicaid enrollment and a decrease in the proportion of the immigrant population that is uninsured,

with little evidence of private insurance crowd-out. The estimated measures of crowd-out for the ordinary least squares model are much larger but the model is likely biased as discussed. The results for health care use and measures of health show a significant increase in the utilization of health services and some evidence of an improvement in health status , particularly in the case of low income citizens. When the analysis is focused on the five year bar and its effect on recently arrived permanent residents, the estimates show a significant decrease in Medicaid coverage accompanied by a rise in the proportion uninsured. There is no effect on health care utilization and health status.

7   Conclusion

Since the welfare reform of 1996, there has been a general expansion in the adult population that is eligible for Medicaid. Over the same period there have been policies put in place that limit the eligibility of immigrants, particularly recently emigrated permanent residents. There were efforts by some states to cover these immigrant groups that were not eligible for coverage under federal guidelines. This study aims to examine the effect of these policies- a general expansion which would tend to increase eligibility and policies which would reduce eligibility - on the insurance coverage of the immigrant population in the United States. The results of this paper indicate that there was an increase in immigrant coverage under medicaid as well as

a rise in the total proportion of the immigrant population that is insured. The measured crowd-out effects are minimal for this group.

The analysis also shows that these changes in medicaid eligibility policy led to a significant increase in the use of health care services, while there is evidence of an improvement in health. This study is a useful addition to the literature on SCHIP/Medicaid expansions which has looked at the effect on expansions on various populations such as children and parents. In particular this is a contribution to studies of the immigrant response to expansion. The study period (1996-2004) does not cover recent changes in Medicaid and insurance coverage overall due to the Affordable Care Act, but it could be informative on the effects of these new policies. In particular, the changes in the use of healthcare services and measures of health status for newly insured immigrants, could be informed by these prior policy response.

A limitation of this study is that it only considers changes in Medicaid income eligibility and the effects of the five year bar. There were other modifications in parental eligibility such as changes to asset tests, to transitional medical assistance programs as well as strategies by states to facilitate enrollment and renewal procedures (Busch and Duchovny 2005). These modifications occurred at the same time as the increases in Medicaid eligibility so it is possible that some of the observed effects attributed to income eligibility expansions may be due to other Medicaid changes.

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Fig 1: Lower Income Population Eligible for Medicaid
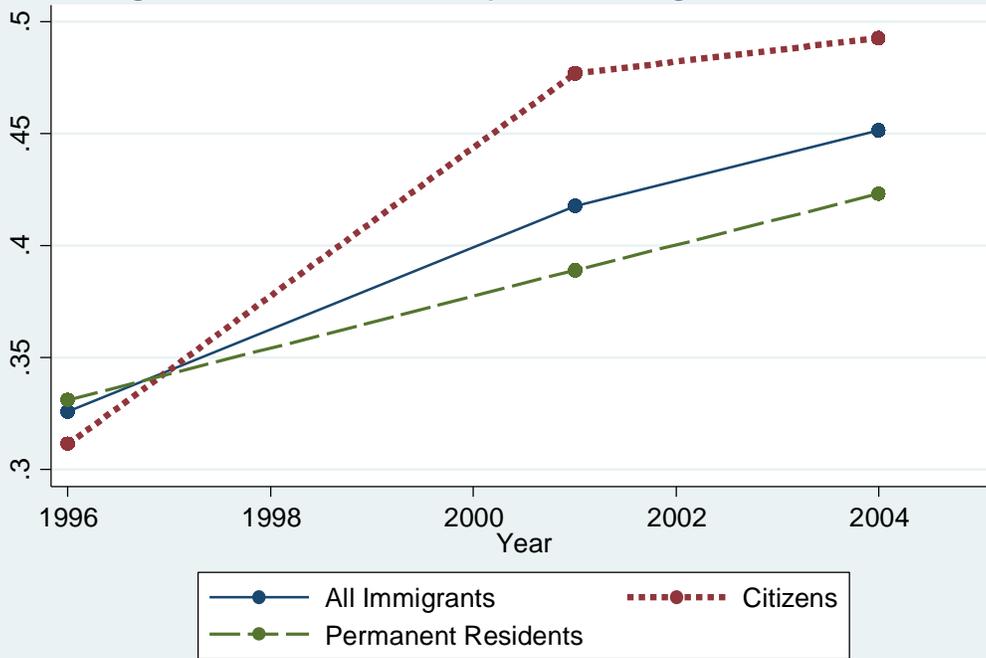
Fig. 2 : Lower Income Population Covered by Medicaid
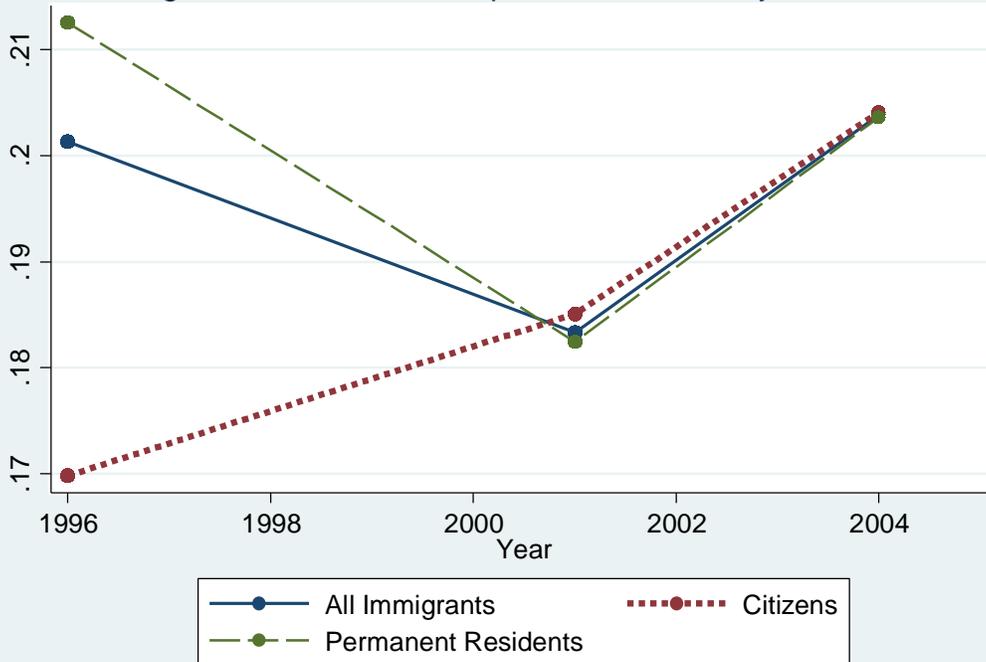
Fig. 3: Lower Income Population Eligible for Medicaid
Resident in the US for at least 5 Years
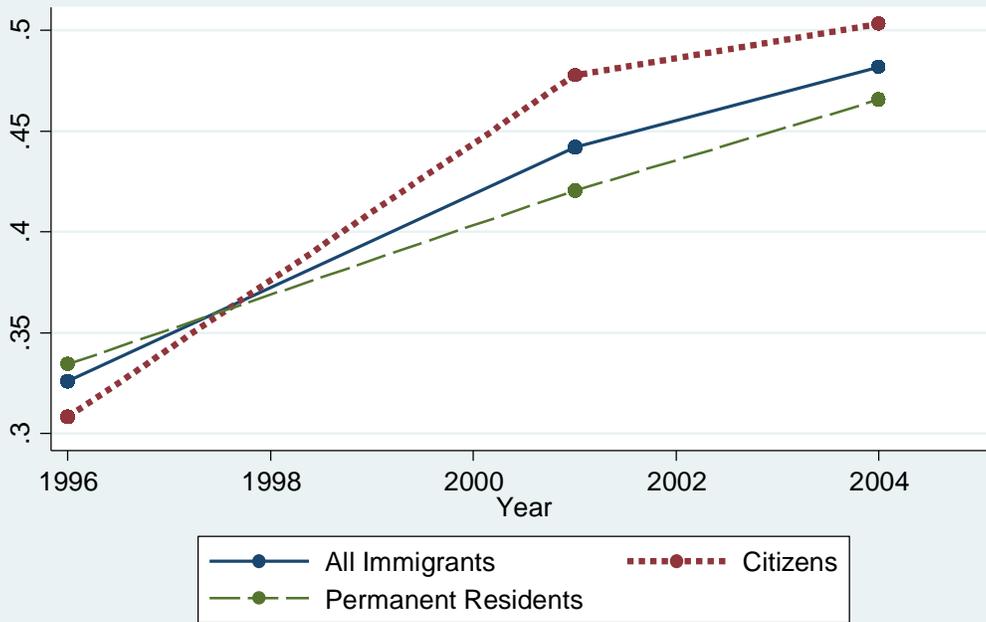
Fig. 4: Lower Income Population Covered by Mediciad
Resident in the US for at least 5 Years

Fig. 5: Lower Income Perm Residents Eligible for Medicaid
Resident in the US less than 5 Years
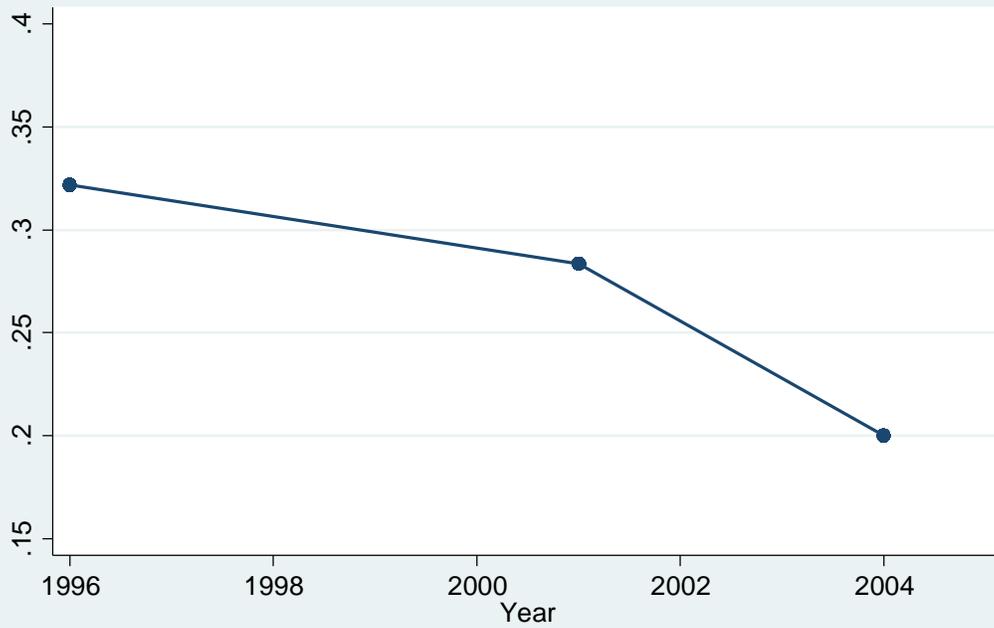
Fig. 6: Lower Income Perm Residents Covered by Medicaid
Resident in the US less than 5 Years
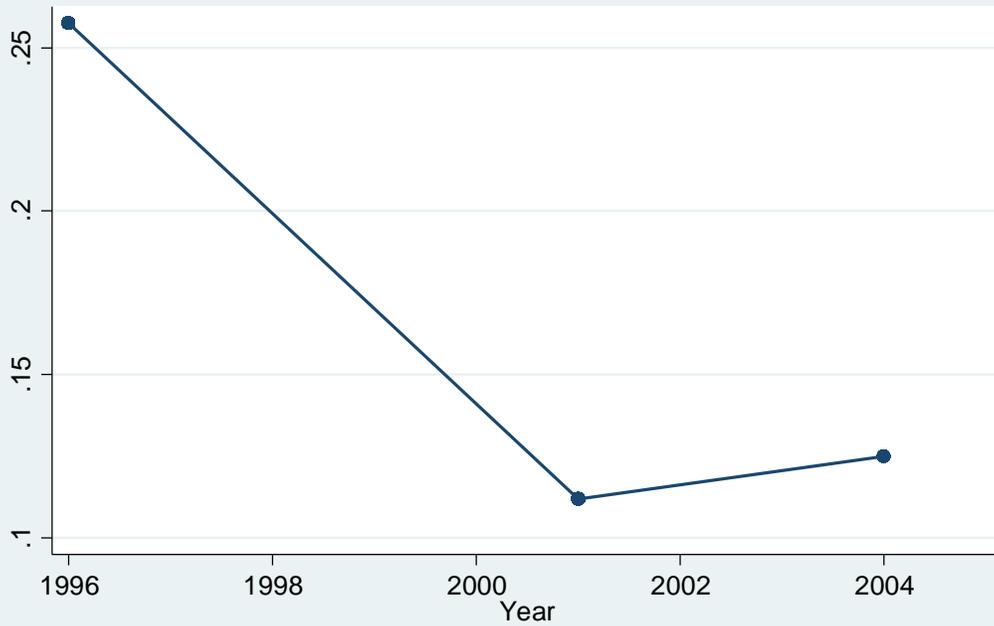
Table 1: Summary of Eligibility Expansions by State, 1996 and 2004

State	1996		2004	
	% of FPL	Recent Immigrants Eliigible	% of FPL	Recent Immigrants Eligible
Arizona	52	Yes	200	No
California	76	Yes	107	Yes
Connecticut	76	Yes	107	Yes
Florida	34	Yes	62	No
Georgia	45	Yes	58	No
Illinois	52	Yes	83	No
Maryland	46	Yes	40	No
Massachusetts	90	Yes	133	No
Michigan	48	Yes	59	No
New Jersey	47	Yes	200	Yes
New York	59	Yes	150	Yes
North Carolina	56	Yes	57	No
Pennsylvania	65	Yes	200	Yes
Texas	32	Yes	33	No
Virginia	33	Yes	36	No
Washington	62	Yes	200	No

Table 2: Dependent Variables and Definitions

Variable	Definition
Very Good Health or Better	Dichotomous variable that equals one if the respondent reports their health as very good or excellent
Any Sick Day	Dichotomous variable that equals one if the respondent has had at least one day when illness or injury kept them in bed for at least half a day
Medical Provider Visit	Dichotomous variable that equals one if the respondent has visited a medical provider in the last year
Hospital Stay	Dichotomous Variable that equals one if the respondent has had an overnight hospital stay in the last year
Medicaid	Dichotomous variable that equals one if the respondent is covered by medicaid
Private Insurance	Dichotomous variable that equals one if the respondent is covered by private insurance
Insurance	Dichotomous variable that equals one if the respondent is covered by any kind of insurance

Table 3: Descriptive Statistics

Variable	Lower Income	Full Sample
Medicaid	0.20	0.11
	(0.40)	((0.31)
Private Insurance	0.36	0.60
	(0.48)	(0.49)
Uninsured	0.45	0.30
	(0.50)	(0.46)
Very Good Health or Better	0.55	0.63
	(0.50)	(0.48)
Any Sick Day	0.32	0.33
	(0.47)	(0.47)
Medical Provider Visit	0.57	0.65
	(0.50)	(0.48)
Hospital Stay	0.09	0.07
	(0.28)	(0.26)
Employed	0.65	0.75
Married	0.76	0.82
Male	0.45	0.47
Age	37.02	37.89
	(9.49)	(9.09)
Black	0.08	0.08
Hispanic	0.63	0.46
Monthly Household Income	1860.49	4402.07
	(1455.55)	(4462.37)
Length of Stay in US	13.11	14.52
	(8.82)	(9.69)
High School Dropout	0.48	0.31
High School Graduate	0.26	0.23
Some College	0.17	0.21
College Graduate	0.06	0.14
More than College	0.03	0.10
Observations	2918	5744

Table 4: Descriptive Statistics by Immigration Status

	Permanent Residents		Citizens	
Variable	Low Income	Full Sample	Low Income	Full Sample
Medicaid	0.20	0.13	0.19	0.08
	(0.40)	(0.34)	(0.40)	(0.27)
Private Insurance	0.30	0.47	0.41	0.75
	(0.46)	(0.50)	(0.50)	(0.43)
Uninsured	0.50	0.38	0.35	0.18
	(0.50)	(0.49)	(0.48)	(0.38)
Very Good Health or Better	0.55	0.61	0.53	0.64
	(0.49)	(0.49)	(0.50)	(0.48)
Any Sick Day	0.30	0.31	0.35	0.37
	(0.46)	(0.46)	(0.48)	(0.48)
Medical Provider Visit	0.53	0.59	0.65	0.72
	(0.50)	(0.49)	(0.48)	(0.45)
Hospital Stay	0.10	0.08	0.07	0.06
	(0.30)	(0.28)	(0.26)	(0.24)
Employed	0.64	0.70	0.68	0.81
Married	0.76	0.81	0.77	0.84
Male	0.44	0.45	0.46	0.49
Age	35.83	36.23	39.51	40.05
	(9.43)	(9.12)	(8.90)	(8.60)
Black	0.07	0.08	0.09	0.10
Hispanic	0.72	0.58	0.43	0.30
Household Income	1839.06	3681.60	1905.44	5342.26
	(1430.32)	(3987.25)	(1506.88)	(5253.22)
Length of Stay in US	11.12	10.91	17.29	19.23
	(8.10)	(8.13)	(8.80)	(9.54)
High School Dropout	0.55	0.42	0.32	0.18
High School Graduate	0.25	0.24	0.28	0.22
Some College	0.14	0.17	0.25	0.27
College Graduate	0.04	0.10	0.09	0.20
More than College	0.02	0.08	0.06	0.13
Observations	1976	3252	942	2492

Table 5: Effect of Medicaid Eligibility on Health Insurance Coverage

	Ordinary Least Squares		
	Medicaid	Private Insurance	Uninsured
Eligible for Medicaid	0.265***	-0.291***	0.038*
	(0.029)	(0.032)	(0.022)
Dependent Variable Mean	0.111	0.600	0.295
N	5744		
Estimated Degree of Crowd Out	109.81%		
	Two Stage Least Squares		
	Medicaid	Private Insurance	Uninsured
Eligible for Medicaid	0.207**	0.015	-0.195
	(0.077)	(0.105)	(0.125)
Dependent Variable Mean	0.111	0.600	0.295
N	5744		
First Stage F Statistic	64.53		
Estimated Degree of Crowd Out	0%		

Standard errors in parentheses clustered at the state level. Model include the following additional variables: age, age squared, state unemployment rate and its lag, household income, length of stay in the US, dummy variables for education level, marital status, employment status, immigration status and indicator variables for sex, race, presence in the US for less than five years and hispanic. State and year fixed effects also included.

*Statistically significant at the 10% level ** at the 5% level *** at the 1% level

Table 6: Effect of Medicaid Eligibility on Health Insurance Outcomes,
Lower Income Group

	Ordinary Least Squares		
	Medicaid	Private Insurance	Uninsured
Eligible for Medicaid	0.171***	-0.105***	-0.052**
	(0.028)	(0.035)	(0.021)
Dependent Variable Mean	0.197	0.357	0.455
N	2918		
Estimated Degree of Crowd Out	61.40%		
	Two Stage Least Squares		
	Medicaid	Private Insurance	Uninsured
Eligible for Medicaid	0.149**	0.067	-0.162**
	(0.067)	(0.045)	(0.075)
Dependent Variable Mean	0.197	0.357	0.455
N	2918		
First Stage F Statistic	120.32		
Estimated Degree of Crowd Out	0%		

 Standard errors in parentheses clustered at the state level. Model includes the following additional variables: age, age squared, state unemployment rate and its lag, household income, length of stay in the US, dummy variables for education level, marital status, employment status and indicator variables for sex, immigration status, race, presence in the US for less than 5 years and hispanic. State and year fixed effects also included.
 *Statistically significant at the 10% level ** at the 5% level *** at the 1% level

Table 7: Effect of Medicaid Eligibility on Health Insurance Outcomes, Citizens

| | Ordinary Least Squares | | | | | |
| | Full Sample | | | Lower Income | | |
	Medicaid	Private Insurance	Uninsured	Medicaid	Private Insurance	Uninsured
Eligible	0.256***	-0.339***	0.114***	0.162***	-0.080	-0.040
	(0.034)	(0.038)	(0.026)	(0.034)	(0.051)	(0.049)
Dependent Variable Mean	0.081	0.748	0.180	0.187	0.476	0.356
N	2492			942		
Estimated Crowd Out	132.42%			49.38%		
	Two Stage Least Squares					
	Full Sample			Lower Income		
	Medicaid	Private Insurance	Uninsured	Medicaid	Private Insurance	Uninsured
Eligible	0.429**	-0.038	-0.272	0.313***	0.029	-0.202
	(0.146)	(0.216)	(0.227)	(0.089)	(0.160)	(0.172)
Dependent Variable Mean	0.081	0.748	0.180	0.187	0.476	0.356
N	2492			942		
First Stage F Statistic	29.04			45.71		
Estimated Crowd Out	8.86%			0%		

Standard errors in parentheses clustered at the state level. All models include the following additional variables: age, age squared, state unemployment rate and its lag, household income, length of stay in the US, dummy variables for education level, marital status, employment status and indicator variables for sex, race,
presence in the US for less than 5 years and hispanic. State and year fixed effects also included.
*Statistically significant at the 10% level ** at the 5% level *** at the 1% level

Table 8: Effect of Medicaid Eligibility on Health Insurance Outcomes, Permanent Residents (≥5 years)

| | Ordinary Least Squares | | | | | |
| | Full Sample | | | Lower Income | | |
	Medicaid	Private Insurance	Uninsured	Medicaid	Private Insurance	Uninsured
Eligible	0.271***	-0.270***	-0.002	0.196***	-0.137***	-0.063**
	(0.034)	(0.041)	(0.028)	(0.028)	(0.040)	(0.024)
Dependent Variable Mean	0.139	0.499	0.365	0.205	0.320	0.479
N	2493			1529		
Estimated Crowd Out	99.25%			91.26%		
	Two Stage Least Squares					
	Full Sample			Lower Income		
	Medicaid	Private Insurance	Uninsured	Medicaid	Private Insurance	Uninsured
Eligible	0.050	0.047	-0.102	0.017	0.150	-0.179
	(0.134)	(0.111)	(0.175)	(0.153)	(0.118)	(0.126)
Dependent Variable Mean	0.139	0.499	0.365	0.205	0.320	0.479
N	2493			1529		
First Stage F Statistic	31.45			63.16		
Estimated Crowd Out	0%			0%		

Standard errors in parentheses clustered at the state level. All models include the following additional variables: age, age squared, state unemployment rate and its lag, household income, length of stay in the US, dummy variables for education level, marital status, employment status and indicator variables for sex, race, presence in the US for less than 5 years and hispanic. State and year fixed effects also included.
*Statistically significant at the 10% level ** at the 5% level *** at the 1% level

Table 9: Effect of Medicaid Eligibility on Health Insurance Outcomes, Permanent Residents (<5 years)

| | Ordinary Least Squares | | | | | |
| | Full Sample | | | Lower Income | | |
	Medicaid	Private Insurance	Uninsured	Medicaid	Private Insurance	Uninsured
Eligible	0.256***	-0.226***	-0.024	0.137***	-0.087	-0.037**
	(0.040)	(0.065)	(0.067)	(0.051)	(0.100)	(0.080)
Dependent Variable Mean	0.119	0.444	0.444	0.190	0.235	0.582
N	759			447		
Estimated Crowd Out	99.25%			91.26%		
	Two Stage Least Squares					
	Full Sample			Lower Income		
	Medicaid	Private Insurance	Uninsured	Medicaid	Private Insurance	Uninsured
Eligible	0.047	0.218	-0.201	0.062	0.028	-0.056
	(0.076)	(0.181)	(0.170)	(0.054)	(0.129)	(0.161)
Dependent Variable Mean	0.119	0.444	0.444	0.190	0.235	0.582
N	759			447		
First Stage F Statistic	10.70			20.34		
Estimated Crowd Out	0%			0%		

Standard errors in parentheses clustered at the state level. All models include the following additional variables: age, age squared, state unemployment rate and its lag, household income, length of stay in the US, dummy variables for education level, marital status, employment status and indicator variables for sex, race, presence in the US for less than 5 years and hispanic. State and year fixed effects also included.
*Statistically significant at the 10% level ** at the 5% level *** at the 1% level

Table 10: Effect of Medicaid Eligibility on Health Care Use and Health

	Ordinary Least Squares			
	Medical Provider Visit	Hospital Stay	Good Health	Sick Day
Eligible for Medicaid	-0.015	0.025***	-0.070***	0.044**
	(0.011)	(0.006)	(0.023)	(0.015)
Dependent Variable Mean	0.646	0.073	0.626	0.335
N	5744			
	Two Stage Least Squares			
	Medical Provider Visit	Hospital Stay	Good Health	Sick Day
Eligible for Medicaid	0.013	0.081	0.041	-0.080
	(0.064)	(0.079)	(0.101)	(0.108)
Dependent Variable Mean	0.646	0.073	0.626	0.335
N	5744			
First Stage F Statistic	64.53			

 Standard errors in parentheses clustered at the state level. All models include the following additional variables: age, age squared, state unemployment rate and its lag, household income, length of stay in the US, dummy variables for education level, marital status, employment status, immigration status and indicator variables for sex, race, presence in the US for less than 5 years and hispanic. State and year fixed effects also included.

 *Statistically significant at the 10% level ** at the 5% level *** at the 1% level

Table 11: Effect of Medicaid Eligibility on Health Care Use and Health,
Lower Income Group

	Ordinary Least Squares			
	Medical Provider Visit	Hospital Stay	Good Health	Sick Day
Eligible for Medicaid	-0.012	0.007	-0.007	0.034*
	(0.023)	(0.013)	(0.032)	(0.018)
Dependent Variable Mean	0.571	0.089	0.548	0.320
N	2918			

	Two Stage Least Squares			
	Medical Provider Visit	Hospital Stay	Good Health	Sick Day
Eligible for Medicaid	0.064	0.070**	-0.034	0.046
	(0.059)	(0.032)	(0.063)	(0.058)
Dependent Variable Mean	0.571	0.089	0.548	0.320
N	2918			
First Stage F Statistic	120.32			

Standard errors in parentheses clustered at the state level. All models include the following additional variables: age, age squared, state unemployment rate and its lag, household income, length of stay in the US, dummy variables for education level, marital status, employment status, immigration status and indicator variables for sex, race, presence in the US for less than 5 years and hispanic. State and year fixed effects also included.

*Statistically significant at the 10% level ** at the 5% level *** at the 1% level

Table 12: Effect of Medicaid Eligibility on Health Care Use and Health, Citizens

| | Ordinary Least Squares | | | | | | | |
| | Full Sample | | | | Lower Income | | | |
	Medical Provider Visit	Hospital Stay	Good Health	Sick Day	Medical Provider Visit	Hospital Stay	Good Health	Sick Day
Eligible	-0.036*	0.023	-0.046	0.027	-0.021	-0.011	0.022	0.001
	(0.020)	(0.014)	(0.037)	(0.019)	(0.038)	(0.016)	(0.060)	(0.043)
Dependent Variable Mean	0.717	0.060	0.645	0.370	0.644	0.068	0.531	0.351
N	2492				942			

| | Two Stage Least Squares | | | | | | | |
| | Full Sample | | | | Lower Income | | | |
	Medical Provider Visit	Hospital Stay	Good Health	Sick Day	Medical Provider Visit	Hospital Stay	Good Health	Sick Day
Eligible	-0.020	0.064	0.076	-0.340	0.225*	-0.011	-0.008	-0.352**
	(0.192)	(0.112)	(0.130)	(0.206)	(0.124)	(0.067)	(0.183)	(0.138)
Dependent Variable Mean	0.192	0.112	0.130	0.206	0.644	0.068	0.531	0.351
N	2492				942			
First Stage F Statistic	29.04				45.71			

Standard errors in parentheses clustered at the state level. All models include the
following additional variables: age, age squared, state unemployment rate and its lag,
household income, length of stay in the US, dummy variables for education level, marital
status, employment status and indicator variables for sex, race and hispanic
State and year fixed effects also included.
*Statistically significant at the 10% level ** at the 5% level *** at the 1% level

Table 13: Effect of Medicaid Eligibility on Health Care Use and Health, Permanent Residents (≥5 years)

	Ordinary Least Squares							
	Full Sample				Lower Income			
	Medical Provider Visit	Hospital Stay	Good Health	Sick Day	Medical Provider Visit	Hospital Stay	Good Health	Sick Day
Eligible	0.005	0.039***	-0.071**	0.059***	-0.008	0.016	-0.009	0.047
	(0.029)	(0.006)	(0.027)	(0.019)	(0.035)	(0.015)	(0.052)	(0.027)
Dependent Variable Mean	0.600	0.075	0.602	0.306	0.544	0.092	0.544	0.301
N	2493				1529			

	Two Stage Least Squares							
	Full Sample				Lower Income			
	Medical Provider Visit	Hospital Stay	Good Health	Sick Day	Medical Provider Visit	Hospital Stay	Good Health	Sick Day
Eligible	0.035	0.088	0.135	-0.003	0.124	0.148***	0.019	0.165
	(0.147)	(0.097)	(0.153)	(0.194)	(0.122)	(0.042)	(0.144)	(0.124)
Dependent Variable Mean	0.600	0.075	0.602	0.306	0.544	0.092	0.544	0.301
N	2493				1529			
First Stage F Statistic	31.45				63.16			

Standard errors in parentheses clustered at the state level. All models include the
following additional variables: age, age squared, state unemployment rate and its lag,
household income, length of stay in the US, dummy variables for education level, marital
status, employment status and indicator variables for sex, race, and hispanic.
State and year fixed effects also included.
*Statistically significant at the 10% level ** at the 5% level *** at the 1% level

Table 14: Effect of Medicaid Eligibility on Health Care Use and Health, Permanent Residents (<5 years)

	Ordinary Least Squares							
	Full Sample				Lower Income			
	Medical Provider Visit	Hospital Stay	Good Health	Sick Day	Medical Provider Visit	Hospital Stay	Good Health	Sick Day
Eligible	-0.024	-0.019	-0.108*	0.030	0.020	0.017	-0.072	0.045
	(0.044)	(0.020)	(0.055)	(0.037)	(0.079)	(0.040)	(0.059)	(0.046)
Dependent Variable Mean	0.565	0.109	0.642	0.318	0.508	0.116	0.599	0.320
N	759				447			

	Two Stage Least Squares							
	Full Sample				Lower Income			
	Medical Provider Visit	Hospital Stay	Good Health	Sick Day	Medical Provider Visit	Hospital Stay	Good Health	Sick Day
Eligible	0.142	0.142	0.044	0.153	0.110	0.115	-0.059	0.271
	(0.228)	(0.090)	(0.216)	(0.169)	(0.192)	(0.085)	(0.162)	(0.157)
Dependent Variable Mean	0.565	0.109	0.642	0.318	0.508	0.116	0.599	0.320
N	759				447			
First Stage F Statistic	10.70				20.34			

Standard errors in parentheses clustered at the state level. All models include the
following additional variables: age, age squared, state unemployment rate and its lag,
household income, length of stay in the US, dummy variables for education level, marital
status, employment status and indicator variables for sex, race, and hispanic
State and year fixed effects also included.
*Statistically significant at the 10% level ** at the 5% level *** at the 1% level

Table 15: Difference-in-Differences Estimate of the Effect of Medicaid Five Year Bar on Health Insurance Coverage - Permanent Residents (<5 years)

	All Permanent Residents		
	Medicaid	Private Insurance	Uninsured
Permanent Resident	0.016	-0.160***	0.136***
	(0.015)	(0.023)	(0.032)
Post-Reform*Permanent Resident	-0.074***	0.034	0.042
	(0.025)	(0.040)	(0.044)
Dependent Variable Mean	0.091	0.679	0.239
N	3155		
Estimated Crowd-Out	45.95%		
	Lower Income Permanent Residents		
	Medicaid	Private Insurance	Uninsured
Permanent Resident	0.022	-0.128***	0.093*
	(0.036)	(0.035)	(0.048)
Post-Reform*Permanent Resident	-0.123***	0.000	0.107*
	(0.041)	(0.036)	(0.059)
Dependent Variable Mean	0.191	0.401	0.423
N	1338		
Estimated Crowd-Out	0%		

Standard errors in parentheses clustered at the state level. Model include the following additional variables: age, age squared, state unemployment rate and its lag, household income, length of stay in the US, dummy variables for education level, marital status, employment status and indicator variables for sex, race and hispanic. State and year fixed effects also included.
*Statistically significant at the 10% level ** at the 5% level *** at the 1% level

Table 16: Difference-in-Differences Estimate of the Effect of Medicaid Five Year Bar on Health Care and Health - Permanent Residents (<5 years)

	All Permanent Residents			
	Medical Provider Visit	Hospital Stay	Good Health	Sick Day
Permanent Resident	-0.054*	0.055*	-0.018	0.017
	(0.025)	(0.020)	(0.034)	(0.055)
Post-Reform*Permanent Resident	-0.014	-0.034	0.060	-0.006
	(0.030)	(0.013)	(0.036)	(0.043)
Dependent Variable Mean	0.684	0.071	0.644	0.361
N	3155			
	Lower Income Permanent Residents			
	Medical Provider Visit	Hospital Stay	Good Health	Sick Day
Permanent Resident	-0.008	0.049	0.026	0.019
	(0.041)	(0.032)	(0.061)	(0.072)
Post-Reform*Permanent Resident	-0.045	-0.015	0.026	0.030
	(0.061)	(0.013)	(0.051)	(0.066)
Dependent Variable Mean	0.603	0.083	0.554	0.344
N	1338			

Standard errors in parentheses clustered at the state level. All models include the following additional variables: age, age squared, state unemployment rate and its lag, household income, length of stay in the US, dummy variables for education level, marital status, employment status, immigration status and indicator variables for sex, race, and hispanic. State and year fixed effects also included.
*Statistically significant at the 10% level ** at the 5% level *** at the 1% level