Effect of Affordable Care Act (ACA) on Health Insurance Coverage among Natives and Immigrants

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Abstract

The Affordable Care Act (ACA) of 2010 included an expansion of Medicaid public health insurance to more low income individuals beginning in 2014. The ACA aimed to achieve nearly universal health insurance coverage in the United States through a combination of mandates, regulations on insurers, expanding Medicaid subsidies and health insurance exchanges, most of which took effect in 2014. This paper estimates the effects of the ACA on health insurance coverage using data from the American Community Survey (ACS) by utilizing difference-in-difference-in-differences model that exploit cross-sectional variation in the intensity of treatment arising from state participation in the Medicaid expansion in 2014 and comparing the effects among natives and immigrants. This study contributes to understand the limits of the ACA in reducing disparities in insurance coverage and exploring how patterns of coverage differ for different sources of insurance among the natives and immigrants. It is observed that the gap is lower in magnitude between the natives and immigrants in terms of public and Medicaid insurance coverage after the ACA implementation.

1 Introduction

The Patient Protection and Affordable Care Act (ACA) was signed into law in March 2010 and authorized the largest expansion of publicly funded health insurance coverage since the introduction of Medicare and Medicaid in the mid 1960s. The goal of the ACA was to achieve nearly health insurance coverage in the United States through a combination of policies largely implemented in 2014. The combined policies include insurance market reforms, mandates, subsidies, health insurance exchanges, and Medicaid expansions (Gruber, 2011). These major components of the ACA all took effect in 2014, with the Medicaid expansion being optional for certain states.[1] This paper uses data from the American Community Survey (ACS) to evaluate the impacts of the ACA on health insurance coverage levels and sources in both states that expanded and those did not and compare the effects between natives and immigrants.

In order to reach and sustain universal coverage, the ACA imposed three major components which simultaneously supported each other known as "the three-legged stool". The first component of the ACA's "three-legged stool" involves reforms designed to improve the functioning of the non-group insurance market for consumers who did not have access to employer-provided or public coverage (Gruber, 2011). These reforms included going from experience rating to community rating, guaranteed issue, and minimum coverage requirements as well as setting up market places to foster competition among insurance plans.[2] The law also established a Health Insurance Marketplace, commonly referred to as the "Federal Exchange", to facilitate insurance purchases for individuals and small businesses and stimulate competition among insurance plans.

These reforms alone would likely lead to an adverse selection death spiral, as an influx of high-cost beneficiaries would drive up premiums for those remaining in the

[1] https://fas.org/sgp/crs/misc/R43564.pdf

[2] For more on the timing of various components of the ACA, check: https://www.kff.org/interactive/implementation-timeline/

insurance pool (Gruber, 2011). This concern motivated the second leg of the three-legged school: the individual mandate which is a requirement of the ACA for most individuals to maintain health insurance coverage or potentially to pay a penalty for noncompliance.[3]

Mandating individuals and employees to pay for health insurance would bring the affordability problem. The third leg of the stool aimed to solve this problem by making insurance more affordable through providing subsidies for individuals who do not qualify for Medicaid or other sources of affordable insurance and expanding Medicaid in states which opted to expand via the ACA. The penalty varies with income but can reach as high as the total annual premium for the national average price of a Bronze exchange plan. Sliding scale subsidies in the form of tax credits are available to consumers in every state with incomes between 100 and 400 percent of the Federal Poverty Line (FPL) who do not qualify for other affordable coverage.[4]

In states that opted to expand Medicaid via the ACA, those with income below 138 percent FPL are eligible for Medicaid coverage. Previously, Medicaid eligibility was typically tied to those with low income among specific groups, such as children, single mothers, pregnant women, and the elderly. This suggests a major expansion of Medicaid eligibility via the ACA for low income childless adults and married adults with children. Under the ACA, U.S. born individuals, naturalized citizens, and legally authorized immigrants have similar entitlements. U.S. born and naturalized citizens are entitled to recieve Medicaid coverage up to 138 percent of the FPL in states that implemented the expansion. Those with incomes 100 to 400 percent of the FPL are eligible to recieve subsidies in the private health insurance exchanges (HIE).

[3]There is also an employer mandate which imposes a financial penalty on employers with more than 50 employees that have at least one full-time employee who receives a premium tax credit. Implementation of this mandate was delayed until January 1, 2015 for businesses with more than 100 employees and January 1, 2016 for those with 50 to 99. More information is available at `http://kff.org/interactive/implementation-timeline/`

[4]Check: `http://www.hhs.gov/healthcare/facts-and-features/key-features-of-aca-by-year/index.html#2014`

In this paper I emphasize on the difference in the health insurance coverage status among the natives and immigrants after the implementation of the ACA. First section of this paper, deals with the existing literature on the impacts of insurance coverage and several studies differentiating the effects of such coverage among the natives and immigrant population. The next section discusses in details about the data source using which I would perform my analyses. Followed by that I have sections describing the econometric framework, the empirical findings and results and interpretations. The last section concludes.

2 Literature Review

There is an extensive literature spanning several decades examining the impact of policies designed to increase insurance coverage on the receipt of both public and private insurance coverage. Buchmueller et al. (2015) provides a thorough review of studies that focus on the impact of expansions of the Medicaid program over time, as well as other Medicaid policy changes that may impact public and/or private insurance coverage. A large part of this literature examines the impact of Medicaid expansions of the late 1980s and early 1990s on coverage gains for children.

The Massachusetts insurance market reform of 2006, served as the model for the ACA in the literature. Long, Stockely, and Yemane (2009) find that by 2008 the uninsured rate decreased by 6.6 percentage points for the overall non-elderly population in Massachusetts. Courtemanche and Zapata (2014) estimate that the Massachusetts reform led to an increase in coverage of 5.6 percentage points for the nonelderly population over a longer time period (July 2007 – December 2010) beginning after the final major component of the reform (the individual mandate) took effect. Yelowitz and Cannon (2010) explore the possibility that the reform's impact was mitigated by crowd-out among the low-income and find evidence supporting this view.

Most prior research on the ACA focuses on the only substantial component of its

coverage expansion to be implemented before 2014: the 2010 mandate for private insurers to allow young adults to stay on their parents' insurance until turning 26. Several studies suggest that the dependent coverage provision increased insurance coverage among 19-25 year olds by 3–5 percentage points, with the effect being largest among those at the high end of this age range (Akosa Antwi et al., 2013; Sommers et al., 2013; Barbaresco, Courtemanche, and Qi, 2015).

There is much less evidence on the effects of the ACA's insurance expansions for the broader population of non-elderly adults, since these did not take effect until 2014. A few recent studies have conducted simple before-and-after comparisons of insurance status. Long et al. (2014) compare coverage rates in September 2013 to September 2014 and find an overall increase in coverage among nonelderly adults using data from the Urban Institute Health Reform Monitoring Survey. Within Medicaid expansion states, they estimate the increase in coverage to be 5.8 percentage points, compared to 4.8 percentage points in non-expansion states. Smith and Medalia (2015) use the Current Population Survey Annual Social and Economic Supplement to examine changes in insurance coverage between 2013 and 2014 for everyone in the US, including both children and the elderly. They estimate an overall 2.9 percentage point increase in coverage, which is a combination of a 3.4 percentage point increase in expansion states and a 2.3 percentage point increase in non-expansion states. Courtemanche et al. (2016) find a similar 2.8 percentage point increase in insurance coverage nationally across all ages using data from the American Community Survey.

Kaestner et al. (2015) aims to identify the causal effect of a 2014 component of the ACA. They focus only on the ACA's Medicaid expansion, as opposed to the law in general. They utilize difference-in-difference and synthetic control methods and a sample of individuals with no further than a high school education from the American Community Survey and Current Population Survey. Among this sample, they find that the Medicaid expansion increased Medicaid coverage by approximately 4

percentage points, decreased the proportion uninsured by approximately 3 percentage points, and decreased private health insurance coverage by 1 percentage point.

Charles et al. (2016) aims to estimate the causal effects of the ACA on health insurance coverage and their specifications suggest that the full ACA increased the proportion of residents with insurance by 5.9 percentage points compared to 3.0 percentage points in states that did not expand Medicaid. Private insurance expansions from the ACA were due to increases in both employer-provided and non-group coverage. The coverage gains from the full ACA were largest for those with incomes below the Medicaid eligibility threshold, nonwhites, young adults, and unmarried individuals. They find some evidence that the Medicaid expansion partially crowded out private coverage among low-income individuals.

Sommers et al. (2016) provides a comprehensive assessment of the provison effects of the ACA that exploits variation by income, geography and time. Their model explains 60 percent of the coverage gains in 2014-2015. While a lot of paper in the literature covers the ACA and its impact on insurance coverage but very little is known about immigrants coverage impact as compared to the native population in the US.

Immigrants often have lower levels of access to private insurance leading them to be more responsive to a new public program (Leighton Ku and Sheetal Matani, 2002, Leighton Ku, 2006). It can be hypothesized that individuals from immigrant family backgrounds will be more likely to enroll in expanded Medicaid as a result of their lower access to private insurance thereby reducing the coverage gap when compared with the natives. Lack of insurance and access to health care are well-documented disparities affecting immigrants in the US. Health insurance coverage and reporting a usual source of care is lower among immigrant and minority populations (Stimpson et al., 2010, Guendelmanet al., 2001). Immigrants and their families are healthier than the population average in the US, and this is reflected in work on the "healthy immigrant" effect and the "Latino paradox". The latter concept refers to the fact

that Latinos simultaneously embody low socioeconomic status and good health (Palloni and Morenoff, 2001). In a study conducted around the time that the Children's Health Insurance Program was being implemented, immigrants were found to use disproportionately fewer medical services and contribute less to health care costs than their population share (Goldman et al., 2006). Reducing uninsurance among immigrants and their families helps them access health services while also improving the overall risk pool in programs such as Medicaid.

There are two potential pathways for immigrant family status to affect participation in public health insurance. The first is through a lack of access to private coverage or employer-sponsored insurance coverage. For example, a study of immigrants in LA county found that this group is more likely to work in industries such as services or textiles that do not offer employer-supplied insurance (Goldman et al.,2005). Reduced access to private health insurance could lead to a greater likelihood of participating in Medicaid expansions. The second pathway could be through a "chilling" effect, in which those in immigrant families are less likely to participate in public programs due to a fear of exposing family members' immigration status, jeopardizing the potential for gaining US citizenship in the future, or exposing their immigration sponsors to financial risk. Following welfare reform, uncertainty about immigrant's eligibility for public health insurance and other consequences produced lower public insurance enrollment among low socioeconomic status immigrant single mothers and their children (Kaushal and Kaestner, 2005). While nationalized citizens and refugees are generally allowed to participate in public insurance on the same terms as citizens, eligibility for legal permanent residents is more complicated. In addition to federal eligibility rules that correspond to date of arrival, states can determine the rules of income and resource deeming and decide how strictly to define and pursue public charge concerns (Fix and Passel, 1999). My study intends to study how the coverage gap has evolved between the natives and immigrants after

the implementation of the ACA in 2014.[5]

3 Data

My study uses publicly available data from the American Community Survey (ACS), a nationwide survey administered by the Census Bureau and accessed through the Integrated Public Use Microdata Series (Ruggles et al., 2015). The ACS is an annual household survey that collects information asking detailed questions about population, housing characteristics and health insurance. The ACS samples approximately one percent of the U.S. population. Like the decennial Census, participation is mandatory, and the survey can be completed online or by mailing in a paper questionnaire.[6] The ACS identifies all 50 states and the District of Columbia, and additionally identifies localities known as Public Use Microdata Areas (PUMAs)– approximately 2,300 areas of at least 100,000 people nested entirely within a state.[7]

The ACS is appealing for my study because of its large number of observations, over 3,000,000 individuals per year, allowing to precisely estimate the effects of different aspects of the ACA. This is important since only a fraction of the total population is affected by the changes resulting from the ACA, limiting plausible effect sizes. My main sample consists of 18-64 year olds from calendar years 2011 to 2017. I exclude individuals older than 64 since the ACA was not intended to affect the health care coverage of seniors. I selected 2011 as the first year of my sample because I did not want the relatively smaller pieces of the ACA implemented in 2010, such as the dependent coverage mandate, the removal of copays on preventive services, and the review of health plan premium increases, to confound my estimates of the major components of the ACA that were implemented in 2014. The benefit of using ACS

[5]Federal immigrant eligibility restrictions in Medicaid maintained, including the five-year-or-more waiting period for most lawfully residing, low-income immigrant adults.

[6]In-person interviews are done with respondents in group quarters, such as college dormitories, nursing homes, and prisons. Check: `https://www.census.gov/content/dam/Census/programs-surveys/acs/about/ACS_Information_Guide.pdf`

[7]For more information, check: `https://www.census.gov/geo/reference/puma.html`

data is the large sample, which is useful for detecting potentially small effect sizes. I relied on data from the Henry J. Kaiser Family Foundation to identify when states implemented expansion of Medicaid eligibility under the ACA.[8]

For each individual, the ACS asks: "Is this person currently covered by any of the following types of health insurance or health coverage plans?" where choices include "insurance though a current or former employer or union", "insurance purchased directly from an insurance company", "Medicare", "Medicaid, Medical Assistance, or any kind of government-assistance plan for those with low incomes or a disability", "TRICARE or other military health care", "VA (including those who have ever used or enrolled for VA health care)", "Indian Health Service", and "any other type of health insurance or health coverage plan". An individual may choose more than one source of coverage, and only those answering "no" to every type of insurance are considered uninsured. Using these responses, I create several binary outcome variables: any insurance, any private insurance, employer-sponsored insurance, directly purchased insurance, Medicaid, and any other coverage.

I include a wide range of control variables. The controls from the ACS reflect demographic characteristics (dummy variables for age groups, gender, and race/ethnicity), family structure (marital status and number of children in the household), and economic/labor force characteristics (dummies for education and household income category, whether the respondent reports her primary occupation as student, and whether the respondent is unemployed).

4 Econometric Framework

For insurance coverage outcome, I begin with a simple difference-in-differences (DD) specification:

$$Y_{ist} = \beta_0 + \beta_1 Post_t + \beta_2 (Medicaid_s * Post_t) + \beta_3 \mathbf{X}_{istn} + \alpha_s + \epsilon_{ist} \quad (1)$$

[8]Check: Henry J, Kaiser Family Foundation . Status of state action on the Medicaid expansion decision [Internet] Menlo Park (CA): KFF; 2017. Nov 8, [cited 2018 Jan 8]

where

• Y_{ist} is the outcome for individual i in state s in time period t ,

• $Post_t$ is an indicator for whether period t is in the post- treatment period of January 2014 or later,

• $Medicaid_s$ is an indicator for whether state s participated in the ACA's Medicaid expansion,

• $\mathbf{X}_{ist}$ is a vector of control variables,

• α_s is the state- fixed effects,

• ϵ_{istn} is the error term.

I do not separately include $Medicaid_s$ in the model since it would be perfectly collinear with the state fixed effects. My results are very similar if I drop the state fixed effects and include $Medicaid_s$ instead. Standard errors are heteroscedasticity-robust and clustered by state.

In equation (1), β_1 represents the effect of the non-Medicaid components of the ACA (insurance market reforms, individual mandate, subsidies, exchanges) while β_2 is the effect of the Medicaid expansion. $\beta_1 + \beta_2$, therefore, gives the impact of the ACA implementation, whereas β_1 is the impact of the ACA without the Medicaid expansion. $\hat{\beta}_2$ has a causal interpretation under the usual difference-in-differences identifying assumption that, conditional on the other covariates, changes in the outcomes in 2014 would have been the same in expansion and non-expansion states if the expansion had not occurred. Interpreting $\hat{\beta}_1$ as causal, however, requires more problematic assumption that there would have been no changes in the outcomes in 2014 in the absence of the ACA, conditional on the controls. This assumption seems unlikely to hold since patterns of insurance coverage would be expected to change from year to year for many reasons, such as macroeconomic conditions.

For each insurance coverage outcome, my preferred specification is a difference-in-difference-in-differences (DDD) design which aims to exploit variation in the intensity of treatment arising from state participation in the Medicaid expansion and comparing the effects among natives and immigrants.

$$Y_{istn} = \beta_0 + \beta_1(Post_t * Medicaid_s * Nativity_n) + \beta_2(Post_t * Medicaid_s) + \beta_3(Medicaid_s * Nativity_n) + \beta_4(Nativity_n * Post_t) + \beta_5\mathbf{X}_{istn} + \delta_t + \alpha_s + \epsilon_{istn} \quad (2)$$

where

• Y_{istn} is the outcome for individual i in state s in time period t with nativity status n,

• $Post_t$ is an indicator for whether period t is in the post- treatment period of January 2014 or later,

• $Medicaid_s$ is an indicator for whether state s participated in the ACA's Medicaid expansion,

• $Nativity_n$ is an indicator for whether individual i in native-born or immigrant,
$Nativity_n = 1$, Born of American Parents
$Nativity_n = 2$, Naturalized Citizen
$Nativity_n = 3$, Not a Citizen

• $\mathbf{X}_{ist}$ is a vector of control variables plus the nativity status,

• δ_t is the time- fixed effects,

• α_s is the state- fixed effects,

• ϵ_{istn} is the error term.

I do not include $Post_t$ and $Medicaid_s$ in the model since it is perfectly collinear with the year fixed effects and the state fixed effects respectively. My main coefficient of interest is β_1. It captures how the policy changes differentially affects individuals by their nativity status.

5 Analysis

5.1 Results

Figure 1 presents changes in the insurance variables of interest during the sample period. The pre-treatment period is from 2011-2013 and the post- treatment period includes 2014-2017. The blue lines represent the coverage in the states that participated in the ACA's Medicaid expansion. The red lines represent the coverage in the states that did not participate in the ACA's Medicaid expansion. The pre-treatment period should reflect parallel trends in insurance coverage. The pre-ACA trends do not appear to differ by Medicaid expansion status, providing preliminary support for the use of these variables as sources of identification. Increases in the probabilities of having any coverage, public coverage, and Medicaid are evident in 2014.

Figure 2 presents changes in the insurance variables by state Medicaid expansion status along with the nativity status. The blue lines represent the insurance coverage for the natives (born of American parents) and insurance coverage for the immigrants is represented by the red line (naturalized citizen) and green line (not a citizen). It is seen that coverage benefits for public and Medicaid insurance is potentially high for the Medicaid expansion states for both the natives and immigrants.

Tables 1 and 2 provide pre-treatment means, standard deviations and standard errors of the dependent variables by state medicaid expansion and nativity status. Individuals in Medicaid expansion states are slightly more likely to have insurance prior to 2014 than those in non-expansion states. Table 3 reports the summary statistics stratified by state Medicaid expansion status. Residents in the Medicaid expansion states had income higher than 35K and more compared to the residents of the non- Medicaid expansion states. Table 4 reports the pre-treatment summary statistics by nativity status. The economic characteristics are similar for the natives and the naturalized citizens. Individuals who are not American citizens, have lower level of education and income. Next, I present the regression analyses to iden-

tify variation in the intensity of treatment arising from state participation in the Medicaid expansion and further compare the effects among natives and immigrants.

Table 5 report the result from my simple difference-in-differences (DD) specification as specified by equation (1) from number of alternative specifications of the model. The specification reported in the first column of the table includes no covariates and no time fixed effects. The second column reports the same equation including all the variables in the vector $\mathbf{X}_{ist}$. The last two columns ignores (β_1) coefficient and measures equation (1) with both the state and time fixed effects. The coefficient for the post reform indicator (β_1) in column two suggests that the 2014 implementation of the non-Medicaid expansion components of the ACA is associated with a 8.97 percentage points increase in the probability of having insurance. The coefficient estimate for the Medicaid expansion / post-reform interaction (β_2) suggests that the choice to expand Medicaid in 2014 is associated with an additional 0.68 percentage points increase in insurance coverage for the typical expansion state. Taken together, these coefficient estimates ($\hat{\beta}_1 + \hat{\beta}_2$) suggest that full implementation of the ACA is associated with a 9.65 percentage points increase in coverage. The DD specification appears to substantially understate the effect of the Medicaid expansion, and consequently the effect of the full ACA as well. As discussed earlier $\hat{\beta}_2$ has a causal interpretation under the usual difference-in-differences identifying assumption that, conditional on the other covariates, changes in the outcomes in 2014 would have been the same in expansion and non-expansion states if the expansion had not occurred. Interpreting $\hat{\beta}_1$ as causal, however, requires more problematic assumption that patterns of insurance coverage would be expected to change from year to year for many reasons, such as macroeconomic conditions, conditional on the covariates. So I drop β_1 and run equation (1), with the control variables and include both the time and state fixed effects. I find that full implementation of the ACA is associated with 0.71 percentage points increase in coverage. Now I switch from the basic DD to DDD specification to estimate the difference in insurance coverage

after the implementation of the ACA to study the differential impacts of coverage for the immigrants and natives.

Table 6 and 7 reports the coefficients of interest from my difference-in-difference-in-differences (DDD) specification mentioned in equation (2) without and with the covariates respectively. I will interpret the results in Table 7. Table 6 has similar interpretation without controlling for the variables included in vector $\mathbf{X}_{ist}$. The dependent variable is the different insurance coverage specified earlier and are represented in each columns.[9] The specifications also include the state and year fixed effects. The "post" and "medicaid" interaction capture the state specific differences in the level of insurance coverage during the period of 2014 or later when ACA was implemented and the states which participated in the ACA's medicaid expansion. The coefficient estimate for the Medicaid expansion / post-reform interaction (β_2) suggests that the choice to expand Medicaid in 2014 is associated with significant 3.92 and 3.75 percentage points increase in public and medicaid insurance coverage for the typical expansion state. The "post" and "nativity" interaction capture the post reform implementation of the ACA without the Medicaid expansion and its impact on the immigrants (nativity=2=Naturalized citizens, and nativity=3=Non-citizens) relative to the natives (nativity=1=Born of American parents). Significant results are obtained in terms of having private and individually purchased coverage for the immigrants compared to natives without the ACA components during the post period. The "medicaid" and "nativity" interaction net out the possibility that there are state differences in health insurance coverage (and in the trends) across the various immigration status groups relative to the natives. Lastly, we have the triple difference coefficient (DDD) which represents the full-interaction specification ("Post", 'Medicaid", "Nativity") and is my main coefficient of interest. It deter-

[9]Note: The different sources of insurance coverage are not mutually exclusive, so one should not expect, for instance, the sum of the effects on all these sources to be exactly equal to the overall increase in coverage estimated in column one as "Any insurance" coverage. This is also the reason why I do not consider econometric models for mutually exclusive choices such as multinomial logits.

mines how the policy changes differentially affected individuals by their nativity status. The coefficient is interpreted as the percentage point differences in the level of insurance coverage among those with immigrant status relative to the natives as a result of the new Medicaid policy. Interestingly, the estimates suggest that the coverage for private, employer-sponsored, individually purchased and other insurance types are 3.45, 1.41, 1.86 and 0.45 percentage points lower respectively for naturalized citizens compared to the natives and are statistically significant. The difference in coverage for non-citizens relative to natives are also lower by 1.40, 0.77, 0.45, 0.06 percentage points. Whereas, the estimates for public, Medicaid insurance coverage are positive in magnitude but are not statistically significant after the ACA implementation. It is worth noting that the new Medicaid policy influenced immigrants more likely to be covered by public and Medicaid health insurance relative to the natives, even though the estimates are not significant.

5.2 Falsification Tests

I performed a "placebo" analyses by running the baseline specification in equation (2) by altering the pre-treatment and post-treatment portion of the sample with different years with full set of controls. The result would give me an idea about whether my current estimates are contaminated or not. If "placebo" interventions during the pre-treatment period are associated with significant changes in coverage, this would suggest that significant changes may have also occurred in 2014 even in the absence of the ACA, in which case the results cannot be given a causal interpretation. Hence I conduct these placebo analyses by running the baseline DDD model given by equation (2) using only the pre-treatment portion of the sample (2011-2013) and pre-implemementation of the full ACA. The analyses is done in two parts. The first test defines 2011 to be a pre-treatment year and 2012-2013 to be post-treatment years, while the second test defines 2011-2012 as pre-treatment years and 2013 as the post- treatment year. Table 8 presents the results of the first

test and table 9 presents the results of the second test. Both the tables reports the coefficients of interest from the DDD specification mentioned controlling for the variables included in the vector $\mathbf{X}_{ist}$. In table 8, there are very few coefficients that yields significant results at the 5 percent level, which is essentially what is expected by chance for true null hypothesis. However, public and Medicaid insurance coverage were marginally lower for the immigrants relative to the natives as specified by the DDD estimates. The coverage gap seems to be marginally higher for immigrants relative to natives (denoted by positive coefficients) for private, employer sponsored and individually purchased insurance coverage.

5.3 Robustness Checks

I performed some robustness checks to clarify my statements by estimating a number of variants of equation (2). I would like to experiment with dropping certain sets of control variables since many- such as income, unemployment, student status, marital status, and the number of children in the household could be endogenous to the ACA and therefore lead to over-controlling problem. I would like to run the regression with the exogenous controls, which are the demographic characteristics-age, gender and race/ethnicity (Table 10). To isolate the influence of each of the other categories of controls, I also estimate the model with demographic and family characteristics (Table 11), demographic and economic characteristics (Table 12). In all these tables, the estimates for private, employer-sponsored, individually purchased insurance coverage are lower for the immigrants relative to the natives and some of them are statistically significant as earlier. Also the estimates for immigrants public and Medicaid insurance coverage is positive in magnitude relative to the natives after the ACA implementation and they are still insignificant. These results are similar to my previous results and bolster my earlier statements.

5.4 Subsample Analyses

The baseline DDD model described in equation (2) does not allow the estimates of the impact of the ACA on the immigrants and natives to vary by any of the demographic characteristics contained in $\mathbf{X}_{ist}$ such as income, race/ethnicity, age, gender, or marital status. I expect to find the differential impact of insurance coverage for immigrants and natives after the ACA implementation to differ in a meaningful way across demographic groups. I estimate a series of subsample regressions in order to assess the magnitude of these differences. For each of the stratification across the demographic groups, I constrain to a maximum of two to three subsamples.

The income variable is self- reported and could therefore be subject to measurement error. Also, I observe gross income whereas the ACA cutoffs are based on modified adjusted gross income, so the delineations are not exact. Specifically, the Medicaid expansion was for those below 138 percent of the Federal Poverty Line (FPL) while the exchanges and subsidies were for those above 100 percent FPL. So I would like to categorize the data using this income level subsample and run the regression. Table 10 presents the results of a stratification of the sample into three groups based on income: those under 138 percent FPL, those between 138 and 400 percent FPL, and those above 400 percent FPL. As discussed in Courtemanche et al. (2016), non-elderly adults below 100 percent FPL are eligible for Medicaid in expansion states, but not in states that opted out of the expansion. Those with income between 100 and 137 percent FPL are also eligible for Medicaid in expansion states and for subsidized exchange coverage in non-expansion states. [10] In all states, those with incomes between 138 and 400 of the FPL are eligible for subsidized exchange coverage with a sliding-scale subsidy. Finally, those with incomes above 400 percent FPL are not eligible for a subsidy, but do face the individual mandate.

[10] Note that my income stratifications might not exactly match to these eligibility cutoffs, both because of reporting error and the fact that I observe gross income whereas eligibility is based on modified adjusted gross income.

A potential complication with stratifying by income is that income could be endogenous to the ACA. For this reason, Kaestner et al. (2015) defined the sample based on education levels rather than income levels in their analysis of the effects of the ACA's Medicaid expansion on low socio-economic status individuals. However, the interpretation of the recent literature is that any such selection issues are likely to be minor. Kaestner et al. (2015) found no evidence that the ACA Medicaid expansion affected employment or work hours, while results from the randomized Oregon experiment suggest no effect of Medicaid on employment or earnings (Baicker et al., 2014). Early evidence on the ACA dependent coverage mandate suggested a reduction in labor supply among young adults after becoming eligible for parental coverage (Akosa Antwi et al., 2013), but this result has been challenged on methodological grounds (Slusky, 2015). The results reported in table 13 suggest that, in expansion states, the effects on private, employer- sponsored, individually purchased and other insurance coverage occurred among the naturalized citizens and non-citizens relative to natives within all the income groups are lower in percentage points. Full implementation of the ACA is predicted to increase public and Medicaid insurance coverage for the immigrants relative to the natives and I find it to be statistically significant at 5 percent level for naturalized citizens relative to natives with incomes below 138 FPL.

Next I stratify the sample by age into three categories, those 18-34, those 35-49, and those 50-64. Table 14 reports the coefficients of interest based on the above mentioned age stratification. The reason for having health insurance coverage differs by age, with the relatively young possibly viewing health insurance as an unnecessary expense given their good overall health, while older individuals may have trouble finding affordable coverage due to poor health. Given the individual mandate, both groups may find exchange coverage attractive for different reasons, such as the potential for a premium subsidy (benefiting the young) and the presence of a more diverse risk pool (benefiting the old).

Table 11 shows that the gains in coverage for any insurance is lower for the naturalized citizens relative to natives. Full implementation of the ACA is predicted to increase medicaid insurance coverage by 1.72 percentage points for naturalized citizens relative to natives, by 4.79 percentage points for non- citizens relative to natives among 50-64 year olds. The results are statistically significant at 5 percent level. For all age groups, there is also increases in public insurance coverage for the immigrants relative to natives.

Table 15 reports results based on a stratification of the sample by race/ethnicity. I group individuals into two categories: non-Hispanic white or non-white. I chose to stratify the race into these two categories- because some of the states have low proportion of blacks or Hispanics. Employer sponsored insurance coverage is lower in percentage points for the immigrants relative to the natives for non-Hispanic whites. Full implementation of the ACA is predicted to increase employer sponsored insurance coverage by 0.16 percentage points for naturalized citizens relative to natives, by 0.18 percentage points for non- citizens relative to natives among non-whites. For all race/ethnicity groups, there is also increases in public and medicaid insurance coverage for the immigrants relative to natives.

Table 13 and 14 presents results stratifying by marital status and gender. I did not observe evidence of any noteworthy differences in the differential impacts of coverage between the immigrants and natives post ACA implementation between married and unmarried individuals as well as men and women.

6 Conclusion

Implementation of ACA had similar entitlements for U.S. born individuals, naturalized citizens, and legally authorized immigrants who are not the citizens of U.S in the states that opted to expand Medicaid. Using data from ACS for the period 2011-2014, this paper aims to study how the insurance coverage gap has evolved

among the natives and immigrants after the implementation of the ACA, which offers assistance to both the groups. The impact of the ACA on the individuals differing by their nativity status is detailed in this paper for different sources of insurance.

Earlier literature on immigrants health insurance coverage suggests that immigrants often have lower levels of access to private insurance that leads them to be more responsive to a new public program. The results in this paper suggests that post implementation of the ACA in 2014 resulted in an increase in coverage for the immigrants relative to the natives in terms of public and Medicaid insurance. However, post reform, the access to private (3.45 percentage points), employer sponsored (1.41 percentage points) as well as individually purchased insurance coverage (1.86 percentage points) was lower in magnitude for naturalized citizens relative to the individuals born of American parents. The results were supported by a number of robustness checks, sub-sample analysis and falsification tests. The estimates obtained under each of these specifications were similar to my original results thereby highlighting the coverage differences in terms of different insurance coverage among the immigrants and natives.

This paper has an obvious caveat as it deals with the estimation of the first year full ACA implementation of 2014 effect. With more future waves of the ACS becoming available, it would be worthwhile to revisit the estimates. Nonetheless, this paper provides evidence about the ACA's early effects comparing the coverage differences among immigrants and natives in Medicaid expanded versus non-expanded states that can help and guide policymakers with the ongoing policy debates.

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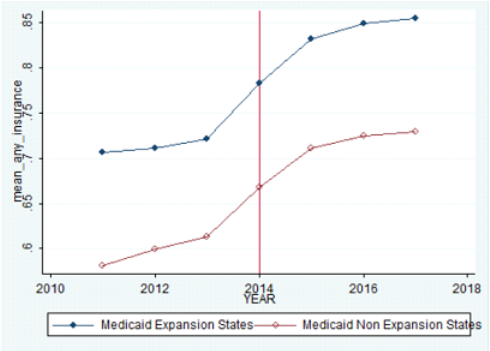
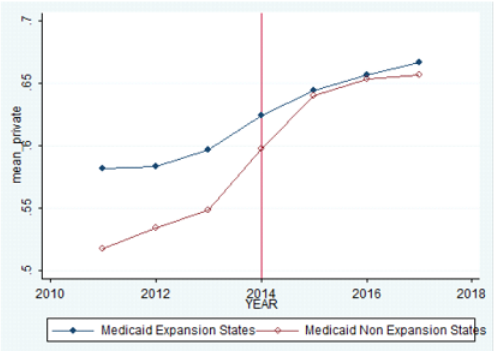
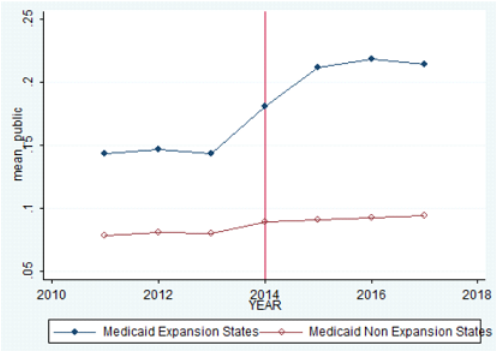
Figure 1: Changes in Insurance Coverage Over Time by State Medicaid Expansion Status



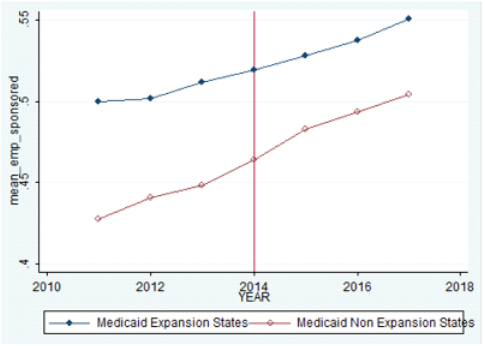
Any Insurance Coverage



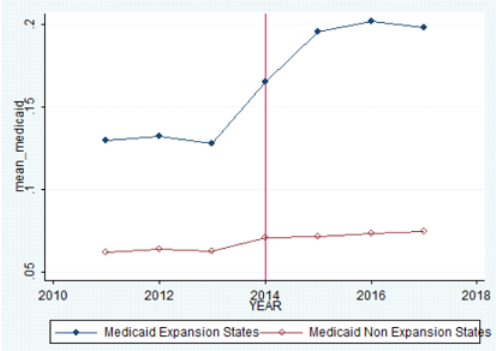
Private Insurance Coverage



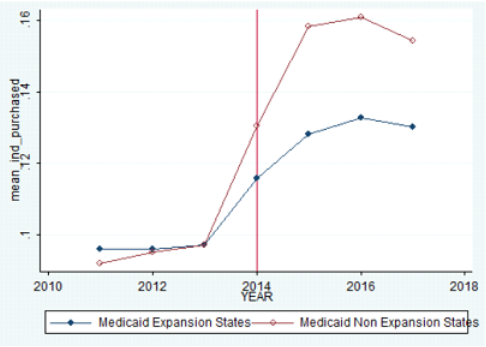
Public Insurance Coverage



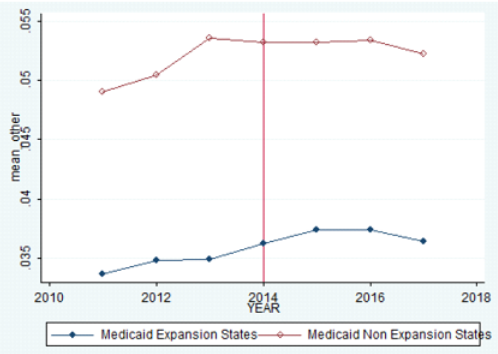
Employer Sponsored Insurance Coverage



Medicaid Insurance Coverage



Individually Purchased Insurance Coverage



Other Insurance Coverage

Figure 2: Changes in Insurance Coverage Over Time by State Medicaid Expansion Status and Nativity Status

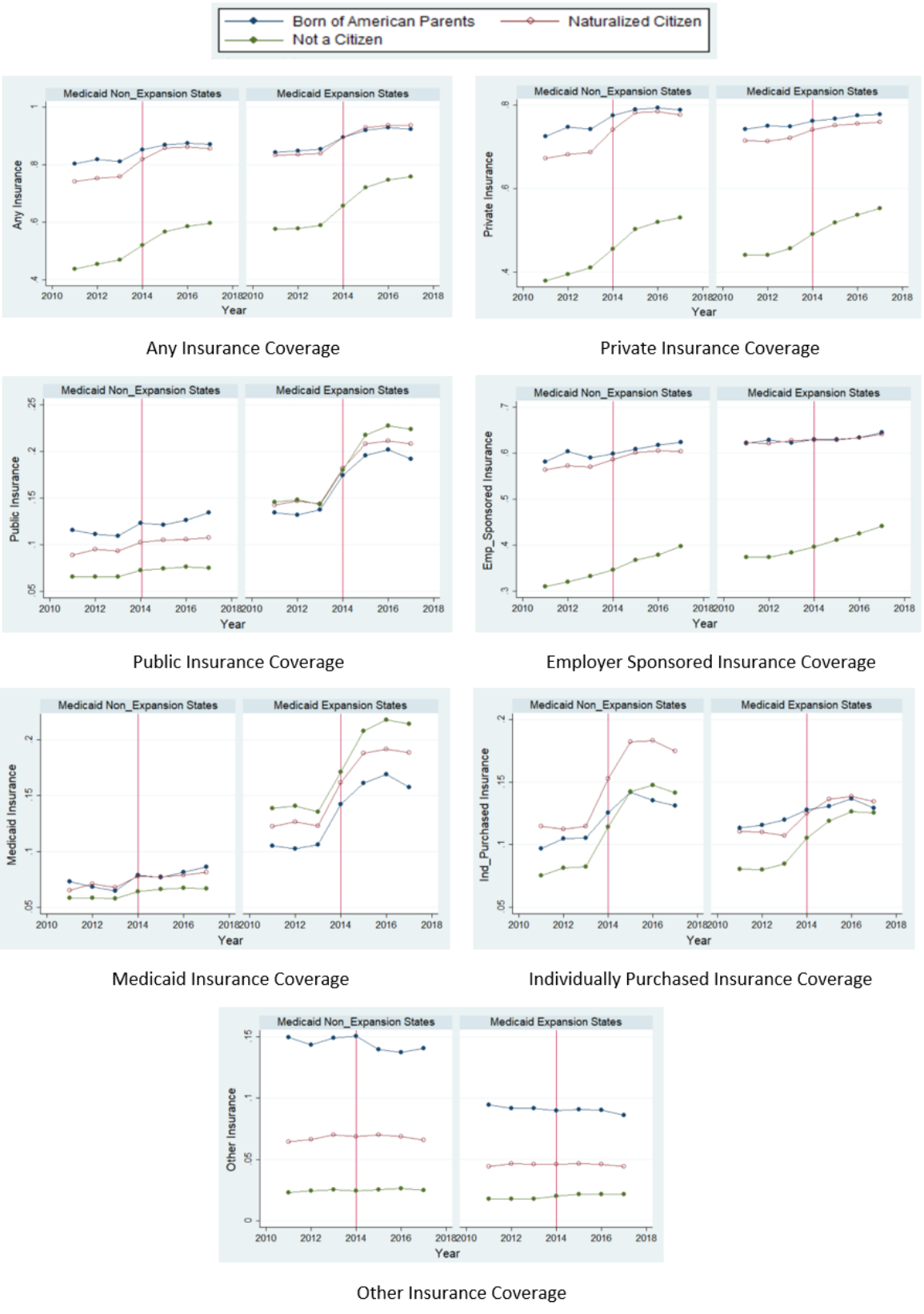


Table 1: Pre-Treatment Summary Statistics of Dependent Variables by State Medicaid Expansion Status

	Medicaid Expansion States			Medicaid Non-Expansion States				
	Mean	Standard Deviation	Standard Error of Mean	Mean	Standard Deviation	Standard Error of Mean	Mean Difference	Standard Error
Any Insurance	0.7131	0.4523	0.0006	0.5979	0.4903	0.0009	0.1151	0.0011
Any private	0.5871	0.4924	0.0006	0.5335	0.4989	0.0009	0.0536	0.0011
Employer Sponsored	0.5044	0.5000	0.0007	0.4391	0.4963	0.0009	0.0653	0.0011
Medicaid	0.1300	0.3363	0.0004	0.0629	0.2428	0.0004	0.0671	0.0007
Individually Purchased	0.0963	0.2950	0.0004	0.0948	0.2929	0.0005	0.0016	0.0007
Any Public	0.1446	0.3517	0.0005	0.0799	0.2711	0.0005	0.0647	0.0007
Other	0.0345	0.1825	0.0002	0.0511	0.2201	0.0004	-0.0166	0.0004

Table 2: Pre-Treatment Summary Statistics of Dependent Variables by Nativity Status

	Born of American Parents			Naturalized Citizen			Not a Citizen		
	Mean	Standard Deviation	Standard Error of Mean	Mean	Standard Deviation	Standard Error of Mean	Mean	Standard Deviation	Standard Error of Mean
Any Insurance	0.8311	0.3747	0.0016	0.8108	0.3917	0.0006	0.5361	0.4987	0.0008
Any private	0.7430	0.4370	0.0019	0.7058	0.4557	0.0007	0.4282	0.4948	0.0007
Employer Sponsored	0.6097	0.4878	0.0021	0.6078	0.4882	0.0008	0.3574	0.4792	0.0007
Medicaid	0.0884	0.2839	0.0012	0.1077	0.3100	0.0005	0.1098	0.3127	0.0005
Individually Purchased	0.1100	0.3129	0.0013	0.1106	0.3137	0.0005	0.0811	0.2729	0.0004
Any Public	0.1244	0.3301	0.0014	0.1291	0.3354	0.0005	0.1174	0.3219	0.0005
Other	0.1174	0.3218	0.0014	0.0519	0.2217	0.0004	0.0202	0.1406	0.0002

Table 3: Pre-Treatment Summary Statistics of Control Variables By Medicaid Expansion Status

	Medicaid Expansion States		Medicaid Non-Expansion States	
	Mean	Standard Deviation	Mean	Standard Deviation
Demographic Controls				
Age Dummies (18-24 is omitted base category)				
Age 25-29	0.092	0.290	0.100	0.299
Age 30-34	0.112	0.315	0.116	0.320
Age 35-39	0.126	0.332	0.128	0.334
Age 40-44	0.134	0.341	0.132	0.339
Age 45-49	0.129	0.335	0.125	0.331
Age 50-54	0.120	0.325	0.117	0.321
Age 55-59	0.104	0.305	0.096	0.294
Age 60-64	0.087	0.282	0.077	0.267
Female	0.516	0.500	0.507	0.500
Race/ Ethnicity Dummies (non-Hispanic white is omitted base category)				
Non-Hispanic Black	0.069	0.253	0.082	0.275
Hispanic	0.266	0.442	0.352	0.478
Other	0.323	0.468	0.225	0.418
Family Controls				
Married	0.657	0.475	0.661	0.474
Dummies for number of children in home (none is omitted base category)				
One child	0.439	0.496	0.459	0.498
Two children	0.207	0.405	0.200	0.400
Three children	0.212	0.409	0.200	0.400
Four children	0.110	0.313	0.107	0.310
Five children or more	0.031	0.175	0.033	0.179
Economic Controls				
Education Dummies (less than high school degree is omitted base category)				
High school degree	0.360	0.480	0.386	0.487
Some college	0.181	0.385	0.186	0.389
College graduate	0.308	0.462	0.273	0.445
Income Dummies (less than 10k is omitted base category)				
Income 10k to 15k	0.085	0.279	0.093	0.290
Income 15k to 20k	0.078	0.268	0.088	0.284
Income 20k to 25k	0.075	0.264	0.086	0.281
Income 25k to 35k	0.107	0.309	0.113	0.316
Income 35k to 50k	0.104	0.306	0.099	0.299
Income 50k to 75k	0.101	0.302	0.085	0.279
Income more than 75k	0.129	0.335	0.095	0.294
Unemployed	0.066	0.248	0.057	0.231

Table 4: Pre-Treatment Summary Statistics of Control Variables By Nativity Status

	Born of American Parents		Naturalized Citizen		Not a Citizen	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Demographic Controls						
Age Dummies (18-24 is omitted base category)						
Age 25-29	0.105	0.307	0.058	0.233	0.126	0.332
Age 30-34	0.093	0.290	0.077	0.266	0.147	0.354
Age 35-39	0.099	0.299	0.105	0.306	0.149	0.356
Age 40-44	0.113	0.316	0.135	0.341	0.135	0.342
Age 45-49	0.118	0.322	0.150	0.357	0.110	0.313
Age 50-54	0.135	0.341	0.152	0.359	0.089	0.284
Age 55-59	0.105	0.307	0.141	0.348	0.066	0.248
Age 60-64	0.060	0.238	0.128	0.335	0.048	0.214
Female	0.499	0.500	0.538	0.499	0.492	0.500
Race/ Ethnicity Dummies (non-Hispanic white is omitted base category)						
Non-Hispanic Black	0.072	0.258	0.087	0.281	0.062	0.240
Hispanic	0.093	0.291	0.193	0.395	0.409	0.492
Other	0.163	0.369	0.376	0.484	0.231	0.421
Family Controls						
Married	0.533	0.499	0.713	0.452	0.626	0.484
Dummies for number of children in home (none is omitted base category)						
One child	0.597	0.490	0.419	0.493	0.451	0.498
Two children	0.169	0.375	0.226	0.419	0.190	0.393
Three children	0.150	0.357	0.229	0.420	0.197	0.398
Four children	0.065	0.247	0.100	0.300	0.123	0.328
Five children or more	0.018	0.133	0.026	0.160	0.039	0.193
Economic Controls						
Education Dummies (less than high school degree is omitted base category)						
High school degree	0.337	0.473	0.329	0.470	0.407	0.491
Some college	0.285	0.451	0.216	0.411	0.141	0.348
College graduate	0.354	0.478	0.366	0.482	0.229	0.420
Income Dummies (less than 10k is omitted base category)						
Income 10k to 15k	0.073	0.261	0.072	0.259	0.103	0.304
Income 15k to 20k	0.059	0.236	0.065	0.246	0.098	0.298
Income 20k to 25k	0.063	0.242	0.073	0.260	0.086	0.281
Income 25k to 35k	0.102	0.302	0.118	0.322	0.102	0.303
Income 35k to 50k	0.122	0.327	0.130	0.337	0.076	0.265
Income 50k to 75k	0.131	0.337	0.133	0.339	0.059	0.236
Income more than 75k	0.156	0.363	0.167	0.373	0.070	0.255
Unemployed	0.061	0.240	0.056	0.229	0.069	0.254

Table 5: EFfect of ACA on Probablity of Having Any Insurance Coverage

	(1)	(2)	(3)	(4)
Post=1	0.1112***	0.0897***		
	(0.0084)	(0.0090)		
Post=1 × Medicaid=1	0.0047	0.0068	0.0049	0.0071
	(0.0197)	(0.0181)	(0.0198)	(0.0182)
Constant	0.6741***	0.8683***	0.6156***	0.8182***
	(0.0070)	(0.0136)	(0.0056)	(0.0107)
Observations	2088854	2088854	2088854	2088854
Controls	No	Yes	No	Yes
State Fixed Effects	Yes	Yes	Yes	Yes
Time Fixed Effects	No	No	Yes	Yes

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

NOTE: The dependent variable is any insurance coverage. Each column represents a separate regression. Column one and three doesn't include the control variables. Column two and four include the control variables. Sampling weights are not used. Standard errors are heteroscedasticity-robust and are clustered by state, are in parentheses.

Table 6: DDD Estimation: Without Control Variables

	Any Insurance	Private	Public	Employer Sponsored	Medicaid	Individually Purchased	Other
Post=1 × Medicaid=1	0.0111	-0.0233***	0.0398***	-0.0093	0.0386***	-0.0165*	0.0021
	(0.0087)	(0.0066)	(0.0078)	(0.0059)	(0.0068)	(0.0069)	(0.0039)
Post=1 × Nativity=2	0.0403***	0.0415***	-0.0013	0.0094	-0.0012	0.0279***	0.0068*
	(0.0064)	(0.0064)	(0.0024)	(0.0073)	(0.0035)	(0.0041)	(0.0029)
Post=1 × Nativity=3	0.0575***	0.0592***	-0.0049	0.0309***	-0.0036	0.0254**	0.0065*
	(0.0101)	(0.0087)	(0.0027)	(0.0059)	(0.0032)	(0.0087)	(0.0032)
Medicaid=1 × Nativity=2	0.0414***	0.0333**	0.0169**	0.0223*	0.0074	-0.0112	0.0329***
	(0.0083)	(0.0100)	(0.0059)	(0.0111)	(0.0054)	(0.0071)	(0.0060)
Medicaid=1 × Nativity=3	0.0773**	0.0411	0.0465***	0.0221	0.0332**	-0.0113	0.0463***
	(0.0228)	(0.0282)	(0.0130)	(0.0226)	(0.0124)	(0.0101)	(0.0084)
Post=1 × Medicaid=1 × Nativity=2	-0.0208*	-0.0326***	0.0060	-0.0121	0.0096	-0.0186***	-0.0034
	(0.0095)	(0.0081)	(0.0056)	(0.0095)	(0.0054)	(0.0049)	(0.0034)
post=1 × Medicaid=1 × Nativity=3	0.0133	-0.0080	0.0179	-0.0025	0.0181	-0.0034	0.0003
	(0.0182)	(0.0099)	(0.0121)	(0.0092)	(0.0111)	(0.0095)	(0.0037)
Constant	0.8219***	0.7213***	0.1353***	0.5969***	0.1016***	0.1076***	0.1075***
	(0.0057)	(0.0068)	(0.0079)	(0.0052)	(0.0073)	(0.0039)	(0.0042)
Observations	2088854	2088854	2088854	2088854	2088854	2088854	2088854

Standard errors in parentheses * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

NOTE: Each column represents a separate regression with different dependent variable. Only the coefficients of interest are reported. All the regressions include control variables as well as the state and time fixed effects. Sampling weights are not used. Standard errors are heteroscedasticity-robust and are clustered by state, are in parentheses.

Table 7: DDD Estimation: With Control Variables

	Any Insurance	Private	Public	Employer Sponsored	Medicaid	Individually Purchased	Other
Post=1 × Medicaid=1	0.0149	-0.0186*	0.0392***	-0.0047	0.0375***	-0.0163*	0.0027
	(0.0090)	(0.0075)	(0.0075)	(0.0052)	(0.0064)	(0.0068)	(0.0038)
Post=1 × Nativity=2	0.0363***	0.0352***	0.0013	0.0048	0.0003	0.0262***	0.0086**
	(0.0058)	(0.0044)	(0.0025)	(0.0039)	(0.0028)	(0.0041)	(0.0028)
Post=1 × Nativity=3	0.0449***	0.0395***	0.0026	0.0147***	0.0026	0.0214*	0.0087**
	(0.0110)	(0.0093)	(0.0031)	(0.0036)	(0.0030)	(0.0089)	(0.0031)
Medicaid=1 × Nativity=2	0.0208***	0.0098	0.0193**	0.0053	0.0101*	-0.0177***	0.0319***
	(0.0057)	(0.0061)	(0.0055)	(0.0067)	(0.0048)	(0.0050)	(0.0059)
Medicaid=1 × Nativity=3	0.0625***	0.0227*	0.0498***	0.0076	0.0365***	-0.0151*	0.0462***
	(0.0108)	(0.0097)	(0.0104)	(0.0100)	(0.0092)	(0.0066)	(0.0079)
Post=1 × Medicaid=1 × Nativity=2	-0.0233**	-0.0345***	0.0051	-0.0141*	0.0095	-0.0186***	-0.0045
	(0.0084)	(0.0060)	(0.0059)	(0.0063)	(0.0052)	(0.0050)	(0.0034)
Post=1 × Medicaid=1 × Nativity=3	0.0084	-0.0140	0.0188	-0.0077	0.0197	-0.0045	-0.0006
	(0.0169)	(0.0098)	(0.0137)	(0.0059)	(0.0125)	(0.0098)	(0.0036)
Constant	0.5651***	0.4728***	0.3001***	0.4659***	0.2315***	0.0055	0.1429***
	(0.0376)	(0.0145)	(0.0164)	(0.0142)	(0.0167)	(0.0092)	(0.0043)
Observations	2088854	2088854	2088854	2088854	2088854	2088854	2088854

Standard errors in parentheses * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

NOTE: Each column represents a separate regression with different dependent variable. Only the coefficients of interest are reported. All the regressions include control variables as well as the state and time fixed effects. Sampling weights are not used. Standard errors are heteroscedasticity-robust and are clustered by state, are in parentheses.

Table 8: DDD Estimation: Falsification Test, Part 1

	Any Insurance	Private	Public	Employer Sponsored	Medicaid	Individually Purchased	Other
Post=1 × Medicaid=1	0.0008	-0.0063	0.0034	-0.0058	0.0033	-0.0025	0.0002
	(0.0125)	(0.0111)	(0.0053)	(0.0107)	(0.0041)	(0.0053)	(0.0065)
Post=1 × Nativity=2	0.0008	-0.0093	0.0108	-0.0077	0.0101	-0.0102**	0.0076
	(0.0106)	(0.0071)	(0.0066)	(0.0072)	(0.0058)	(0.0037)	(0.0055)
Post=1 × Nativity=3	0.0018	-0.0071	0.0067	-0.0081	0.0072	-0.0041	0.0053
	(0.0086)	(0.0068)	(0.0044)	(0.0057)	(0.0037)	(0.0035)	(0.0052)
Medicaid=1 × Nativity=2	0.0209*	0.0023	0.0259***	0.0008	0.0163**	-0.0241**	0.0333***
	(0.0085)	(0.0091)	(0.0057)	(0.0086)	(0.0055)	(0.0074)	(0.0081)
Medicaid=1 × Nativity=3	0.0686***	0.0192	0.0568***	0.0030	0.0431***	-0.0164	0.0480***
	(0.0118)	(0.0122)	(0.0105)	(0.0125)	(0.0102)	(0.0091)	(0.0099)
Post=1 × Medicaid=1 × Nativity=2	-0.0055	0.0048	-0.0088	0.0062	-0.0083	0.0032	-0.0020
	(0.0127)	(0.0099)	(0.0073)	(0.0105)	(0.0063)	(0.0053)	(0.0064)
Post=1 × Medicaid=1 × Nativity=3	-0.0103	-0.0001	-0.0061	0.0029	-0.0057	-0.0001	-0.0019
	(0.0115)	(0.0101)	(0.0053)	(0.0093)	(0.0043)	(0.0057)	(0.0060)
Constant	0.9644***	0.8568***	0.1565***	0.7958***	0.0967***	0.0597***	0.1272***
	(0.0122)	(0.0128)	(0.0065)	(0.0109)	(0.0062)	(0.0106)	(0.0040)
Observations	876848	876848	876848	876848	876848	876848	876848

Standard errors in parentheses * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

NOTE: Each column represents a separate regression with different dependent variable. Only the coefficients of interest are reported. All the regressions include control variables as well as the state and time fixed effects. Sampling weights are not used. Standard errors are heteroscedasticity-robust and are clustered by state, are in parentheses.

Table 9: DDD Estimation: Falsification Test, Part 2

	Any Insurance	Private	Public	Employer Sponsored	Medicaid	Individually Purchased	Other
Post=1 × Medicaid=1	0.0088	-0.0014	0.0086	0.0009	0.0083*	0.0017	-0.0040
	(0.0089)	(0.0087)	(0.0047)	(0.0088)	(0.0041)	(0.0052)	(0.0052)
Post=1 × Nativity=2	0.0039	-0.0052	0.0081	-0.0043	0.0082*	-0.0041	0.0024
	(0.0082)	(0.0057)	(0.0060)	(0.0060)	(0.0040)	(0.0044)	(0.0040)
Post=1 × Nativity=3	0.0128*	0.0043	0.0075*	0.0074	0.0088**	-0.0021	-0.0004
	(0.0052)	(0.0049)	(0.0033)	(0.0065)	(0.0026)	(0.0041)	(0.0038)
Medicaid=1 × Nativity=2	0.0213**	0.0046	0.0241***	0.0026	0.0145**	-0.0202**	0.0317***
	(0.0073)	(0.0074)	(0.0046)	(0.0069)	(0.0043)	(0.0058)	(0.0066)
Medicaid=1 × Nativity=3	0.0679***	0.0205*	0.0569***	0.0073	0.0433***	-0.0163*	0.0460***
	(0.0111)	(0.0098)	(0.0107)	(0.0104)	(0.0101)	(0.0070)	(0.0085)
Post=1 × Medicaid=1 × Nativity=2	-0.0117	0.0025	-0.0120	0.0069	-0.0111*	-0.0053	0.0004
	(0.0095)	(0.0077)	(0.0067)	(0.0083)	(0.0047)	(0.0052)	(0.0054)
Post=1 × Medicaid=1 × Nativity=3	-0.0181*	-0.0039	-0.0122*	-0.0069	-0.0118**	-0.0004	0.0021
	(0.0073)	(0.0071)	(0.0049)	(0.0084)	(0.0038)	(0.0054)	(0.0052)
Constant	0.9665***	0.8608***	0.1541***	0.7995***	0.0945***	0.0619***	0.1246***
	(0.0109)	(0.0116)	(0.0065)	(0.0098)	(0.0061)	(0.0105)	(0.0035)
Observations	876848	876848	876848	876848	876848	876848	876848

Standard errors in parentheses * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

NOTE: Each column represents a separate regression with different dependent variable. Only the coefficients of interest are reported. All the regressions include control variables as well as the state and time fixed effects. Sampling weights are not used. Standard errors are heteroscedasticity-robust and are clustered by state, are in parentheses.

Table 10: DDD Estimation: Robustness Check- Only Demographic Controls

	Any Insurance	Private	Public	Employer Sponsored	Medicaid	Individually Purchased	Other
Post=1 × Medicaid=1	0.0139	-0.0201**	0.0398***	-0.0061	0.0380***	-0.0164*	0.0029
	(0.0087)	(0.0069)	(0.0077)	(0.0054)	(0.0068)	(0.0069)	(0.0038)
Post=1 × Nativity=2	0.0372***	0.0363***	0.0011	0.0062	0.0001	0.0259***	0.0084**
	(0.0059)	(0.0050)	(0.0026)	(0.0053)	(0.0033)	(0.0041)	(0.0027)
Post=1 × Nativity=3	0.0480***	0.0459***	-0.0008	0.0207***	-0.0006	0.0219*	0.0082**
	(0.0113)	(0.0097)	(0.0030)	(0.0040)	(0.0033)	(0.0090)	(0.0030)
Medicaid=1 × Nativity=2	0.0174**	0.0033	0.0228***	-0.0001	0.0136*	-0.0190***	0.0320***
	(0.0065)	(0.0080)	(0.0063)	(0.0098)	(0.0057)	(0.0050)	(0.0060)
Medicaid=1 × Nativity=3	0.0607***	0.0204	0.0505***	0.0052	0.0372**	-0.0151*	0.0463***
	(0.0123)	(0.0172)	(0.0134)	(0.0155)	(0.0125)	(0.0067)	(0.0082)
Post=1 × Medicaid=1 × Nativity=2	-0.0232*	-0.0348***	0.0057	-0.0147	0.0099	-0.0184***	-0.0043
	(0.0089)	(0.0068)	(0.0054)	(0.0080)	(0.0052)	(0.0050)	(0.0034)
Post=1 × Medicaid=1 × Nativity=3	0.0096	-0.0121	0.0182	-0.0061	0.0190	-0.0042	-0.0006
	(0.0177)	(0.0101)	(0.0123)	(0.0073)	(0.0113)	(0.0098)	(0.0035)
Constant	0.7189***	0.5318***	0.2421***	0.4347***	0.1618***	0.0807***	0.1760***
	(0.0152)	(0.0133)	(0.0127)	(0.0109)	(0.0125)	(0.0061)	(0.0040)
Observations	2088854	2088854	2088854	2088854	2088854	2088854	2088854

Standard errors in parentheses * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

NOTE: Each column represents a separate regression with different dependent variable. Only the coefficients of interest are reported. All the regressions include control variables as well as the state and time fixed effects. Sampling weights are not used. Standard errors are heteroscedasticity-robust and are clustered by state, are in parentheses.

Table 11: DDD Estimation: Robustness Check- Demographic and Family Controls

	Any Insurance	Private	Public	Employer Sponsored	Medicaid	Individually Purchased	Other
Post=1 × Medicaid=1	0.0142	-0.0200**	0.0399***	-0.0059	0.0382***	-0.0165*	0.0028
	(0.0088)	(0.0069)	(0.0076)	(0.0053)	(0.0067)	(0.0069)	(0.0038)
Post=1 × Nativity=2	0.0367***	0.0356***	0.0012	0.0054	0.0003	0.0260***	0.0085**
	(0.0060)	(0.0051)	(0.0025)	(0.0051)	(0.0032)	(0.0041)	(0.0027)
Post=1 × Nativity=3	0.0471***	0.0444***	-0.0000	0.0191***	0.0001	0.0220*	0.0083**
	(0.0112)	(0.0096)	(0.0030)	(0.0039)	(0.0031)	(0.0090)	(0.0030)
Medicaid=1 × Nativity=2	0.0167*	0.0035	0.0218***	-0.0003	0.0125*	-0.0187***	0.0324***
	(0.0066)	(0.0077)	(0.0058)	(0.0096)	(0.0052)	(0.0050)	(0.0061)
Medicaid=1 × Nativity=3	0.0607***	0.0206	0.0503***	0.0053	0.0370**	-0.0150*	0.0463***
	(0.0126)	(0.0165)	(0.0128)	(0.0151)	(0.0117)	(0.0066)	(0.0082)
Post=1 × Medicaid=1 × Nativity=2	-0.0234*	-0.0351***	0.0057	-0.0150	0.0099	-0.0184***	-0.0043
	(0.0088)	(0.0067)	(0.0055)	(0.0078)	(0.0052)	(0.0050)	(0.0034)
Post=1 × Medicaid=1 × Nativity=3	0.0095	-0.0123	0.0182	-0.0062	0.0191	-0.0042	-0.0006
	(0.0175)	(0.0100)	(0.0127)	(0.0071)	(0.0116)	(0.0099)	(0.0035)
Constant	0.6510***	0.3116***	0.4052***	0.2324***	0.3254***	0.0666***	0.1695***
	(0.0223)	(0.0126)	(0.0277)	(0.0127)	(0.0288)	(0.0080)	(0.0041)
Observations	2088854	2088854	2088854	2088854	2088854	2088854	2088854

Standard errors in parentheses * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

NOTE: Each column represents a separate regression with different dependent variable. Only the coefficients of interest are reported. All the regressions include control variables as well as the state and time fixed effects. Sampling weights are not used. Standard errors are heteroscedasticity-robust and are clustered by state, are in parentheses.

Table 12: DDD Estimation: Robustness Check- Demographic and Economic Controls

	Any Insurance	Private	Public	Employer Sponsored	Medicaid	Individually Purchased	Other
Post=1 × Medicaid=1	0.0150	-0.0182*	0.0389***	-0.0045	0.0371***	-0.0161*	0.0028
	(0.0090)	(0.0076)	(0.0076)	(0.0053)	(0.0065)	(0.0069)	(0.0039)
Post=1 × Nativity=2	0.0369***	0.0359***	0.0012	0.0056	0.0002	0.0261***	0.0085**
	(0.0059)	(0.0046)	(0.0025)	(0.0039)	(0.0028)	(0.0041)	(0.0028)
Post=1 × Nativity=3	0.0461***	0.0413***	0.0019	0.0165***	0.0019	0.0215*	0.0087**
	(0.0115)	(0.0098)	(0.0031)	(0.0034)	(0.0031)	(0.0090)	(0.0031)
Medicaid=1 × Nativity=2	0.0216***	0.0100	0.0199***	0.0058	0.0108*	-0.0180***	0.0316***
	(0.0057)	(0.0062)	(0.0056)	(0.0066)	(0.0048)	(0.0050)	(0.0059)
Medicaid=1 × Nativity=2=3	0.0622***	0.0223*	0.0499***	0.0073	0.0367***	-0.0152*	0.0461***
	(0.0105)	(0.0097)	(0.0105)	(0.0098)	(0.0094)	(0.0067)	(0.0078)
Post=1 × Medicaid=1 × Nativity=2	-0.0230*	-0.0341***	0.0052	-0.0138*	0.0095	-0.0187***	-0.0046
	(0.0086)	(0.0061)	(0.0058)	(0.0063)	(0.0051)	(0.0050)	(0.0034)
Post=1 × Medicaid=1 × Nativity=3	0.0086	-0.0138	0.0188	-0.0075	0.0197	-0.0045	-0.0006
	(0.0172)	(0.0103)	(0.0134)	(0.0059)	(0.0122)	(0.0098)	(0.0037)
Constant	0.9095***	0.8850***	0.0626**	0.8180***	-0.0038	0.0641***	0.1398***
	(0.0216)	(0.0117)	(0.0226)	(0.0088)	(0.0207)	(0.0076)	(0.0036)
Observations	2088854	2088854	2088854	2088854	2088854	2088854	2088854

Standard errors in parentheses * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

NOTE: Each column represents a separate regression with different dependent variable. Only the coefficients of interest are reported. All the regressions include control variables as well as the state and time fixed effects. Sampling weights are not used. Standard errors are heteroscedasticity-robust and are clustered by state, are in parentheses.

Table 13: DDD Estimation: Income Subsamples

	Any Insurance	Private	Public	Employer Sponsored	Medicaid	Individually Purchased	Other
Under 138% FPL							
Post=1 × Medicaid=1 × Nativity=2	-0.0122	-0.0488***	0.0332*	-0.0119	0.0364*	-0.0360***	-0.0071
	(0.0170)	(0.0134)	(0.0148)	(0.0082)	(0.0140)	(0.0098)	(0.0066)
Post=1 × Medicaid=1 × Nativity=3	0.0199	-0.0002	0.0209	-0.0032	0.0187	0.0056	-0.0004
	(0.0159)	(0.0151)	(0.0158)	(0.0079)	(0.0142)	(0.0125)	(0.0060)
Observations	549143	549143	549143	549143	549143	549143	549143
138% - 400% FPL							
Post=1 × Medicaid=1 × Nativity=2	-0.0190	-0.0408***	0.0160	-0.0103	0.0250*	-0.0282**	-0.0074
	(0.0167)	(0.0097)	(0.0123)	(0.0099)	(0.0105)	(0.0099)	(0.0086)
Post=1 × Medicaid=1 × Nativity=3	0.0085	-0.0185	0.0216	-0.0061	0.0264	-0.0069	-0.0050
	(0.0226)	(0.0140)	(0.0180)	(0.0105)	(0.0162)	(0.0137)	(0.0081)
Observations	651916	651916	651916	651916	651916	651916	651916
Over 400% FPL							
Post=1 × Medicaid=1 × Nativity=2	-0.0166**	-0.0259***	0.0012	-0.0179	0.0037	-0.0079	-0.0001
	(0.0057)	(0.0057)	(0.0059)	(0.0093)	(0.0035)	(0.0048)	(0.0054)
Post=1 × Medicaid=1 × Nativity=3	0.0043	-0.0185*	0.0167	-0.0101	0.0171	-0.0113	0.0039
	(0.0149)	(0.0078)	(0.0115)	(0.0076)	(0.0100)	(0.0072)	(0.0041)
Observations	887795	887795	887795	887795	887795	887795	887795

Standard errors in parentheses * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

NOTE: Each column represents a separate regression with different dependent variable. Only the coefficients of interest are reported. All the regressions include control variables as well as the state and time fixed effects. Sampling weights are not used. Standard errors are heteroscedasticity-robust and are clustered by state, are in parentheses.

Table 14: DDD Estimation: Age Subsamples

	Any Insurance	Private	Public	Employer Sponsored	Medicaid	Individually Purchased	Other
Age 18-34							
Post=1 × Medicaid=1 × Nativity=2	-0.0231	-0.0366**	0.0122	-0.0141	0.0100	-0.0087	-0.0082
	(0.0126)	(0.0108)	(0.0103)	(0.0094)	(0.0102)	(0.0057)	(0.0067)
Post=1 × Medicaid=1 × Nativity=3	0.0088	0.0058	0.0029	0.0029	-0.0006	0.0146	-0.0045
	(0.0125)	(0.0108)	(0.0097)	(0.0084)	(0.0097)	(0.0076)	(0.0069)
Observations	624562	624562	624562	624562	624562	624562	624562
Age 35-49							
Post=1 × Medicaid=1 × Nativity=2	-0.0302***	-0.0421***	0.0043	-0.0246**	0.0093	-0.0214*	-0.0009
	(0.0076)	(0.0082)	(0.0077)	(0.0089)	(0.0055)	(0.0082)	(0.0063)
Post=1 × Medicaid=1 × Nativity=3	0.0087	-0.0202	0.0226	-0.0143	0.0247	-0.0084	0.0032
	(0.0194)	(0.0126)	(0.0155)	(0.0082)	(0.0135)	(0.0128)	(0.0059)
Observations	802334	802334	802334	802334	802334	802334	802334
Age 50-64							
Post=1 × Medicaid=1 × Nativity=2	-0.0118	-0.0270***	0.0062	-0.0070	0.0172*	-0.0264**	-0.0052
	(0.0123)	(0.0077)	(0.0088)	(0.0099)	(0.0083)	(0.0081)	(0.0070)
Post=1 × Medicaid=1 × Nativity=3	0.0067	-0.0407***	0.0423*	-0.0147	0.0479*	-0.0325*	0.0003
	(0.0237)	(0.0114)	(0.0208)	(0.0106)	(0.0189)	(0.0146)	(0.0075)
Observations	661958	661958	661958	661958	661958	661958	661958

Standard errors in parentheses * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

NOTE: Each column represents a separate regression with different dependent variable. Only the coefficients of interest are reported. All the regressions include control variables as well as the state and time fixed effects. Sampling weights are not used. Standard errors are heteroscedasticity-robust and are clustered by state, are in parentheses.

Table 15: DDD Estimation: Race/Ethnicity Subsamples

	Any Insurance	Private	Public	Employer Sponsored	Medicaid	Individually Purchased	Other
Non- Hispanic White							
Post=1 × Medicaid=1 × Nativity=2	-0.0095	-0.0186*	0.0039	-0.0173*	0.0119	-0.0017	-0.0024
	(0.0101)	(0.0082)	(0.0082)	(0.0072)	(0.0075)	(0.0065)	(0.0042)
Post=1 × Medicaid=1 × Nativity=3	0.0113	0.0067	0.0004	-0.0007	0.0028	0.0048	0.0072
	(0.0133)	(0.0105)	(0.0083)	(0.0087)	(0.0067)	(0.0099)	(0.0051)
Observations	427286	427286	427286	427286	427286	427286	427286
Non- White							
Post=1 × Medicaid=1 × Nativity=2	-0.0114	-0.0300*	0.0117	0.0016	0.0101	-0.0231*	-0.0067
	(0.0125)	(0.0115)	(0.0077)	(0.0109)	(0.0078)	(0.0095)	(0.0070)
Post=1 × Medicaid=1 × Nativity=3	0.0130	-0.0161	0.0254*	0.0018	0.0199	-0.0087	-0.0030
	(0.0166)	(0.0113)	(0.0119)	(0.0119)	(0.0110)	(0.0092)	(0.0067)
Observations	1100206	1100206	1100206	1100206	1100206	1100206	1100206

Standard errors in parentheses * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

NOTE: Each column represents a separate regression with different dependent variable. Only the coefficients of interest are reported. All the regressions include control variables as well as the state and time fixed effects. Sampling weights are not used. Standard errors are heteroscedasticity-robust and are clustered by state, are in parentheses.

Table 16: DDD Estimation: Marital Status Subsamples

	Any Insurance	Private	Public	Employer Sponsored	Medicaid	Individually Purchased	Other
Married							
Post=1 × Medicaid=1 × Nativity=2	-0.0157	-0.0244***	0.0009	-0.0112	0.0107	-0.0148**	-0.0092*
	(0.0080)	(0.0048)	(0.0066)	(0.0075)	(0.0054)	(0.0051)	(0.0042)
Post=1 × Medicaid=1 × Nativity=3	0.0134	-0.0125*	0.0198	-0.0073	0.0268*	-0.0079	-0.0060
	(0.0160)	(0.0056)	(0.0134)	(0.0074)	(0.0113)	(0.0090)	(0.0042)
Observations	1375071	1375071	1375071	1375071	1375071	1375071	1375071
Unmarried							
Post=1 × Medicaid=1 × Nativity=2	-0.0245	-0.0494***	0.0234*	-0.0133	0.0177	-0.0254**	-0.0044
	(0.0126)	(0.0108)	(0.0097)	(0.0094)	(0.0096)	(0.0082)	(0.0067)
Post=1 × Medicaid=1 × Nativity=3	0.0121	-0.0098	0.0209	-0.0060	0.0134	0.0077	0.0014
	(0.0185)	(0.0140)	(0.0141)	(0.0093)	(0.0144)	(0.0111)	(0.0068)
Observations	518419	518419	518419	518419	518419	518419	518419

Standard errors in parentheses * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

NOTE: Each column represents a separate regression with different dependent variable. Only the coefficients of interest are reported. All the regressions include control variables as well as the state and time fixed effects. Sampling weights are not used. Standard errors are heteroscedasticity-robust and are clustered by state, are in parentheses.

Table 17: DDD Estimation: Gender Subsamples

	Any Insurance	Private	Public	Employer Sponsored	Medicaid	Individually Purchased	Other
Male							
Post=1 × Medicaid=1 × Nativity=2	-0.0281**	-0.0399***	0.0045	-0.0249**	0.0097	-0.0143*	-0.0063
	(0.0091)	(0.0081)	(0.0071)	(0.0080)	(0.0053)	(0.0065)	(0.0042)
Post=1 × Medicaid=1 × Nativity=3	0.0081	-0.0145	0.0184	-0.0173*	0.0186	0.0028	0.0014
	(0.0179)	(0.0140)	(0.0137)	(0.0083)	(0.0116)	(0.0100)	(0.0045)
Observations	1015599	1015599	1015599	1015599	1015599	1015599	1015599
Female							
Post=1 × Medicaid=1 × Nativity=2	-0.0190	-0.0296***	0.0058	-0.0038	0.0094	-0.0228***	-0.0033
	(0.0096)	(0.0069)	(0.0066)	(0.0097)	(0.0068)	(0.0064)	(0.0050)
Post=1 × Medicaid=1 × Nativity=3	0.0085	-0.0144	0.0201	0.0012	0.0215	-0.0120	-0.0024
	(0.0174)	(0.0082)	(0.0147)	(0.0097)	(0.0143)	(0.0110)	(0.0055)
Observations	1073255	1073255	1073255	1073255	1073255	1073255	1073255

Standard errors in parentheses * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

NOTE: Each column represents a separate regression with different dependent variable. Only the coefficients of interest are reported. All the regressions include control variables as well as the state and time fixed effects. Sampling weights are not used. Standard errors are heteroscedasticity-robust and are clustered by state, are in parentheses.