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# The Impact of Medicaid Enrollment Expansion on the Health Well-being of Social Security Beneficiaries

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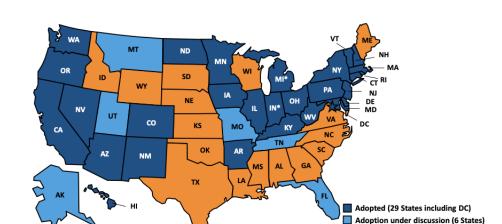
### **Abstract**

Medicaid is a necessary source of supplemental healthcare coverage for Social Security beneficiaries, however, there are various regulations in place regarding eligibility to receive Medicaid for these low-income people in different states across the country. Social Security beneficiaries are more likely to need Medicaid coverage since they are more vulnerable given their relatively lower income, standard of living, and health condition. Therefore, these regulations effect the health of Social Security recipients in the states with more restrictive Medicaid policies (e.g., a separate Medicaid application). In this study, we use data from Current Population Survey (CPS) and Annual Social and Economic Supplement (ASEC) to understand the effect of the state-wide expansion of automatic enrollment on Social Security beneficiaries and to provide the first descriptive study of the health well-being of Social Security beneficiaries who have Medicaid coverage. This research investigates the following research questions: (i) Did the health of Social Security beneficiaries improve in the states with Medicaid expansion in place versus the states without? (ii) Which group within Social Security beneficiaries had their health condition impacted due to Medicaid expansion? And are there average differences in reported health of our demographic? This research will facilitate a better understanding of the causal effects of Medicaid policy regimes on the health well-being of Social Security recipients across different states.

**Keywords:** Health well-being, Medicaid expansion, Social Security, Public Health, Public Health Insurance

### 1. Introduction

Medicaid is a joint federal-state program that gives health insurance coverage to various kinds of populations with low income and few assets, people younger than age 65 with disabilities including most Social Security beneficiaries and elderly people aged 65 or older. Medicaid and Children's Health Insurance Program (CHIP) together provide health coverage to over 72.5 million Americans and these programs are the single largest source of health coverage in the United States. In addition, Medicaid covers acute care long-term-care services such as nursing home stays and pharmacies. In the United States, Medicaid was implemented in almost all the states between 1966 and 1970, except Alaska (1972) and Arizona (1982). Since then, the subject of Medicaid expansion has been an important matter, and states adopted it differently. Recently, the Medicaid expansion program expanded coverage to adults with incomes up to 138 percent of the Federal Poverty Level (\$17,774 for an individual in 2021). Today, 39 states including Washington D.C. have adopted Medicaid expansion, while 12 states have not adopted it. The 1935 Social Security Act provided monthly retirement benefits to workers aged 65 and over. Furthermore, since 1961, people as young as 62 have been allowed to collect Social Security benefits. In addition, the Social Security program was started to provide a uniform federal safety net for the elderly and disabled in 1974. While Social Security is largely a federal program, with the federal government setting the eligibility criteria and benefits level, there are state variations in benefits policy and administration, as some states provide supplements to the basic federal benefit. As illustrated in Figure 1, by March 2015, 28 states and the District of Colombia adopted the expansion while 22 states did not adopt the expansion. In the states with no Medicaid expansion, the number of uninsured adults who fell into a coverage gap was 3.7 million, and they remained ineligible for Medicaid due to the absence of the Medicaid expansion in their states.



### Status of Medicaid Expansion Decisions, March 2015

Figure 1: Status of Medicaid Expansion Across the United States (Kaiser Family Foundation. "Status of State Action on the Medicaid Expansion Decision." KFF state health facts, March 6, 2015. https://www.kff.org/).

Not Adopting At This Time (16 States)

According to the Kaiser Family Foundation (KFF) analysis (Artiga, Stephens, and Damico 2015) and Current Population Survey (CPS), more than 22 percent of African American adults are uninsured compared to 14 percent of Whites, while Hispanic Americans have the highest uninsured rate at about 34 percent, as shown in Figure 2.

# Percent of Nonelderly Adults who are Uninsured by Race/Ethnicity, 2013

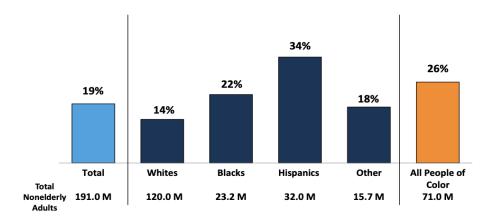


Figure 2: Percentage of Uninsured People According to their Race/Ethnicity (Kaiser Family Foundation. "Status of State Action on the Medicaid Expansion Decision." KFF state health facts, March 6, 2015. https://www.kff.org/).

Furthermore, about 41 percent of the uninsured adults of color would be eligible for Medicaid (based on their age and income) if all states adopted the Medicaid expansion, compared to the share of white uninsured adults who are eligible. As illustrated in Figure 3, if all states adopted Medicaid expansion, approximately 57 percent and 34 percent of uninsured African American and Hispanic American adults would be eligible, respectfully.

# Share of Uninsured Adults Who Would be Eligible if All States Expanded Medicaid, by Race/Ethnicity

**Among Non-Elderly Uninsured Adults:** 

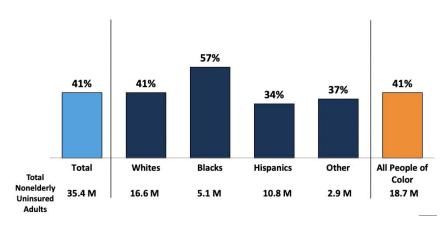


Figure 3: Percentage of Uninsured Adults Who Would be Eligible if All States Expanded Medicaid (Kaiser Family Foundation. "Status of State Action on the Medicaid Expansion Decision." KFF state health facts, March 6, 2015. https://www.kff.org/).

Increased access to Medicaid can affect Social Security beneficiaries via easier access to necessary healthcare, thereby reducing family medical expenses, thus increasing financial capability. This research uses the public dataset to investigate the following research questions: (i) Did the health of Social Security beneficiaries improve in the states with Medicaid expansion in place versus the states without? (ii) Which group within Social Security beneficiaries had their health condition impacted due to Medicaid expansion? Are there average differences in reported health of the assessed demographic?

This particular low-income group (i.e., Social Security recipients) and their Medicaid enrollment expansion and health condition across different states with various regulations has been understudied. This research contributes by addressing and highlighting reforms needed to address these public health concerns and to increase overall health insurance, specifically the expansion of Medicaid coverage. Therefore, this research focuses on the health well-being of low-income

people pre- and post-Medicaid expansion across different states. By using CPS and Annual Social and Economic Supplement (ASEC) samples, this paper aims to understand the effect of the statewide expansion of Medicaid on Social Security beneficiaries to provide the first descriptive study of the health well-being of Social Security beneficiaries who have Medicaid coverage.

### 2. Literature Review

The literature includes some studies on the effect of automatic enrollment for Medicaid coverage in comparison with separate-application policy regimes which clarify the impact of different regimes on the number of state-wide enrollments and among different demographics. However, they have not considered the effect of the expansion of automatic enrollment and separate application of Medicaid on the health well-being of Social Security beneficiaries while considering variable regulations in different states. Furthermore, as we all know, Medicaid enrollment expansion can have an essential role in increasing the level of health well-being of recipients, specifically Social Security recipients, in the states which have various kinds of applications for Medicaid enrollment. In other words, the gap in the literature comes from the fact that other researchers have not considered the effect of the aforementioned Medicaid variability, across different states, on the health well-being of Social Security beneficiaries. The current study attempts to address this.

This study has some limitations; for example, as mentioned in the work by Saunders and Alexander (2009) there is no one-to-one correspondence between Medicaid eligibility and enrollment and, as a result, it is not possible to understand if the changes in the Medicaid participation status is voluntary or involuntary. For instance, there are cases in which even continuously eligible people drop out of the program, as some find the administrative requirements of participation too burdensome. According to a study by Sommers, Baicker, and Epstein (2012), it is estimated that between 20 to 40 percent of adults who could have been eligible for Medicaid were not enrolled in 2008. Therefore, our estimates may underestimate the effect of Medicaid enrollment expansion on the health well-being of Social Security beneficiaries in different states.

The literature on Medicaid expansion and Social Security benefits presents mixed results concerning positive effects. Rupp and Riley (2016) showed that automatic enrollment is not associated with a substantial, if any, increase in average Medicaid expenditures pre-Affordable Care Act (ACA) period. Furthermore, they did not find any evidence of associations of Medicaid enrollment policies with any specific demographic characteristics. This is a very important study

since it has provided a baseline for future studies of the relationship between the Social Security and Medicaid programs. Jackson, Agbai, and Rauscher (2021) addressed whether state-level Medicaid generosity is associated with family wealth among families with children and whether these effects vary by race, ethnicity, and education of parents. They used logistic regression with a combination of repeated cross-section and regression discontinuity approaches to discern the positive effects of automatic enrollment on Medicaid coverage relative to other policies. According to the other studies by Byker and Goodman-Bacon (2018) and Miller and Wherry (2019), there is a direct positive effect of state-level Medicaid coverage on short and longer-term outcomes for child and adult health conditions. Furthermore, Goodman-Bacon (2018) showed that Medicaid's introduction improves adult health and reduces Social Security Disability (SSDI) receipt. However, these studies did not consider the effect of Medicaid enrollment expansion on health well-being of Social Security beneficiaries. In the current work, the focus is on this particular group of lower income people, rather than all Medicaid recipients. Moreover, recent studies (Brown, Kowalski, and Lurie 2015), (Cohodes and Goodman 2014; Goodman-Bacon 2018; S. M. Miller and Wherry 2014; S. Miller and Wherry 2019) showed that Medicaid's longer-run effects are focused mainly on health, education, and labor market outcomes. Also, evidence suggests that Medicaid affects participation in programs like Social Security; however, we do not know the exact impact of it. Therefore, in this study we want to find a scientific answer to fill the gaps from previous studies.

### 3. Data and Methods

In some of the relevant published works, researchers used datasets such as Social Security Administration's (SSA) Disability Analysis File (DAF) and MAX Personal Summary File from the Centers for Medicare and Medicaid Services (CMS). In these works, authors merged various datasets to prepare them for further analysis. While SSA's Disability Analysis File (DAF) is publicly available, the other dataset (MAX Personal Summary File) is private, which prompted the need for another publicly available dataset for this study. Finally, we concluded that the Current Population Survey (CPS) and Annual Social and Economic Supplement (ASEC) datasets contain the needed information for our analysis. The CPS unbanked/under-banked supplements do not provide information on whether the survey respondent or household head has health information and if he/she is a social security income beneficiary. Therefore, we merged the CPS supplements with the ASEC to get data on Medicaid enrollment, other insurances, and Social Security

recipients' information along with demographic and economic variables and specifically, health information. We merged the CPS monthly samples that belong to the surveys conducted in either January or June and March. Notably, the final merged dataset is smaller than the original CPS unbanked/under-banked supplement dataset. We followed the data merging procedure introduced by (Burkhauser et al., n.d.) in which variables were merged based on unique identification numbers. Furthermore, we used the CPS unbanked/underbanked household weight in our analysis. In the CPS-ASEC dataset, we have detailed information on demographic characteristics (e.g., birth cohort, race, education, prior marital status), general health, and work-limiting disability for each sample member and his/her spouse. This dataset also collects detailed, self-reported information on public program receipt, including whether social security is received, the reason it is received, and whether Social Security Income (SSI) is received along with core (i.e., information that is repeated at every interview) and health information. Data from 2011, 2013, and 2015 of CPS-ASEC was the focus of this project. One of our hypotheses was to see an increase in health wellbeing of Social Security recipients when there is a sharp rise in Medicaid expansion coverage in certain states. Moreover, we also anticipated an increase in the health well-being of Social Security beneficiaries in the states which already had Medicaid expansion in place.

The empirical approach that we are going to use is a straightforward difference-indifference (DID) model. This method compares Social Security recipiency in the states with Medicaid expansion and the ones that did not expand, before and after 2014. Table 1 shows that States which expanded Medicaid and non-expansion Medicaid states before and after 2014.

Table 1: Expansion and Non-expansion Medicaid States until January 2014

Expansion Medicaid States	Non-expansion Medicaid States	
Alaska, Arizona, Arkansas, California,	Alabama, Florida, Georgia, Idaho, Kansas,	
Colorado, Connecticut, Delaware, the District	Maine, Mississippi, Missouri, Nebraska, North	
of Columbia, Hawaii, Illinois, Indiana, Iowa,	Carolina, Oklahoma, South Carolina, South	
Kentucky, Maryland, Massachusetts,	Dakota, Tennessee, Texas, Utah, Virginia, and	
Michigan, Minnesota, Nevada, New	Wyoming	
Hampshire, New Jersey, New Mexico, New		
York, North Dakota, Ohio, Oregon,		

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Pennsylvania, Rhode Island, Vermont,
Washington, West Virginia, and Wisconsin
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We did not consider Louisiana and Montana in this study because they expanded Medicaid in 2016 but the results were unaffected. Between March 2010 and December 2013, five states (California, Connecticut, Minnesota, New Jersey, and Washington) and the District of Columbia took advantage of the Affordable Care Act's early Medicaid expansion option for low-income adults. In this study, we use a DID method to explore the effect of Medicaid expansion enrollment on the health well-being of Social Security recipients. DID is an econometric method that compares the effects of variables on treatment and control groups over time. This approach uses cross-sectional data to estimate the differences over time, and their effect on the dependent variable. There are two periods of time, before and after a specific date (e.g., policy implication), which have importance in this project, and that is prior and after January 2014 when 21 states expanded Medicaid through the Affordable Care Act expansion. The following models are estimated using Ordinary least squares (OLS):

### Model 1:

 $\mathsf{HEALTH} = \beta_0 + \beta_1 TREAT + \beta_2 \mathsf{POSTYEAR} + \beta_3 TREAT * \mathsf{POSTYEAR} + \varepsilon$ 

Model 2:

HEALTH =  $\beta_0 + \beta_1 TREAT + \beta_2 POSTYEAR + \beta_3 TREAT * POSTYEAR + \beta_4 SS + \varepsilon$ 

Model 3 and Model 4:

HEALTH =  $\beta_0 + \beta_1 TREAT + \beta_2 POSTYEAR + \beta_3 TREAT * POSTYEAR + \beta_4 X + \varepsilon$ 

where *dependent variable* is health condition (dummy variable, 1 if health condition is good and more, 0 if not), key independent variables are *TREAT* (dummy variable, 1 if the state expanded Medicaid in 2014, 0 if not) and *POSTYEAR* (dummy variable, 1 if the year of the data is after 2014, 0 if not). *X* is a vector of individual-level control for some demographic characteristics (age, gender, annual income, race, education, married, SSI or Social Security Disability Insurance (SSDI) recipient, and Medicaid enrollment last year). Categorical measurements (0/1 dummy variables) are used for each of the household characteristics to allow for nonlinear relationships.

The key coefficient is  $\beta_3$  and if it is significant, it means that the expansion of Medicaid across states has a significant effect on whether a Social Security recipient will be healthy. The TREAT\*POSTYEAR variable represents the interaction of a treatment state and post year Medicaid expansion, so we called it *interaction* variable while  $\varepsilon$  is the error term. The  $\beta_3$  is the DID estimate of the effect of Medicaid expansion on health well-being. We analyzed four models in this study. Model 1 shows the main OLS regression for DID. In model 2, we added Social Security as a control variable. Moreover, we used cluster standard error of state levels in Models 2 and 4 when fitting a regression model. Furthermore, in Models 3 and 4, we considered demographic variables.

The analytical method yields unbiased estimates of the causal effect of Medicaid expansion on the assumption that the trend in the health well-being of Social Security recipiency in expansion states and non-expansion states would have been similar if Medicaid expansion had not occurred. In this statistical approach, data from the pre-Medicaid expansion period (2011-2013) and the post-Medicaid expansion period (2015) was evaluated to ascertain whether the differences in health well-being of Social Security recipients between expansion states and non-expansion states was constant over time.

## 4. Results and Discussion

Table 2 presents the summary statistics for 2011, 2013 and 2015. According to this table, the percentage of young people (35 44) and middle-aged people (45 54) is higher than other age groups. It is important to mention that the percentage of people who have private health insurance is higher than the ones who have Medicaid. In addition, the percentage of Medicaid recipients after Medicaid expansion is higher than any other years in 2015. As expected, Medicaid expansion increased in the number of Medicaid recipients across all states. Furthermore, the percentage of health condition increased over time with the largest increase in 2015.

	2011	2013	2015
Variable Name	n=24966	n=22592	n=19524
Age 15-24	12.07	12.24	11.66
Age 25-34	13.05	12.61	12.88
Age 35-44	13.38	12.92	13.03
Δ ge 45-54	15 12	1/.39	13.80

Table 2: Summary Statistics Table 2011, 2013 and 2015

Age 55-64       12.80       12.87       13.24         Age 65 and older       13.38       14.65       15.24         Male       48.52       48.16       48.25         Female       51.47       51.83       51.78         Annual Income Less than \$15K       9.36       9.14       8.06         Annual Income \$15,000-       15.04       14.03       13.23	1 1 3
Male       48.52       48.16       48.27         Female       51.47       51.83       51.78         Annual Income Less than \$15K       9.36       9.14       8.06         Annual Income \$15,000       8.06	1
Female 51.47 51.83 51.78  Annual Income Less than \$15K 9.36 9.14 8.06	3
Annual Income Less than \$15K  Annual Income \$15,000-	
\$15K 9.36 9.14 8.06	
Annual Income \$15,000-	7
\$29,999 15.04 14.03 13.2°	
Annual Income \$30,000- \$49,999 16.94 17.24 16.89	)
Annual Income \$50,000- \$74,999 18.14 17.90 17.20	5
Annual Income \$75,000 and above 40.49 41.66 44.49	)
White 80.64 79.02 77.93	l
African American 11.74 11.89 12.42	2
Other Race 7.61 9.08 9.66	
Hispanic American         15.06         16.69         17.70	)
Medicaid recipients last year 14.87 16.43 18.33	3
Private Health Insurance 66.91 65.01 67.33	l
Health Conditions         88.60         88.56         88.90	)
Married 41.73 42.23 52.76	5
Unmarried 58.26 57.76 47.23	3
Social Security 18.34 17.51 18.43	3

Table 3 shows the percentage of Medicaid recipients who were also Social Security beneficiaries. As we can see in 2011 and 2013, during the pre-Medicaid expansion period, the percentage of Medicaid recipients is higher than the percentage of Medicaid recipients who are also Social Security beneficiaries in 2015 in all states. Therefore, when Medicaid expansion was adopted in most states, the percentage of people who used both Medicaid and Social Security benefits decreased in 2015.

	Medicaid Year		
Variable Name			
	2011	2013	2015
Social Security (SS)	50.37	51.04	42.94

Table 3. Percentage of Medicaid recipients who also used Social Security (weighted)

According to Table 4, the percentage of African American Medicaid recipients who also used Social Security increased from 24.01 percent in 2011 to 26.39 percent in 2015 which means Medicaid expansions mostly affected African Americans since their percentage increased in most states.

Table 4. the percentage of Medicaid users who are also Social Security recipients based on their races (weighted)

Medicaid			
Race	Social Security (SS)		
	2011	2013	2015
White	70.38	68.88	68.20
African	24.01	23.96	26.39
American			
Other Races	3.79	8.01	5.41

Table 5 presents the health condition of people who used Social Security and provided a "yes" answer to the questions of whether they or someone in the household used Medicaid in the last year. The health condition of the Social Security recipients who also used Medicaid had changed significantly pre- and post-Medicaid expansion. As presented in Table 4, we observe relatively low changes between 2011 and 2013 (pre-Medicaid expansion); however, during the post-Medicaid expansion period, the health status of people who used both Social Security and Medicaid increased in some states as Medicaid expansion happened in between 2013 and 2015. For example, in states such as California, Colorado, New York, Washington, Massachusetts, Michigan, Maryland, and Minnesota, which are among the states that expanded Medicaid, we see an increase in the health status comparing pre- and post-Medicaid expansion eras. For instance, in California, the health condition of Medicaid and Social Security users increased from 29.47 percent to 47.1 percent.

Table 5. The health condition (in percentage) of Medicaid users who are also Social Security beneficiaries in different state (before and after Medicaid expansion period) (weighted)

Year	Social Security		
Chatas	2011	2013	2015
States Alabama	56.33	-	51.99
Arizona	29.74	37.24	85.19
Arkansas	-	-	40.96
California	29.47	31.36	47.18
Colorado	37.53	-	38.06
Connecticut	39.90	83.59	41.00
Delaware	61.31	34.93	72.19
District of	58.35	66.95	54.18
Colombia		00.93	
Florida	32.37	24.68	50.39
Georgia	42.37	16.37	32.06
Hawaii	67.60	41.23	49.40
Idaho	-	62.84	32.34
Illinois	13.23	27.43	21.64
Iowa	73.16	29.77	38.09
Kansas	62.72	38.71	20.73
Kentucky	15.30	51.56	13.56
Maine	77.51	59.19	29.74
Maryland	41.34	-	53.56
Massachusetts	26.80	24.41	29.18
Michigan	11.43	88.30	46.55
Minnesota	54.85	80.58	83.10
Mississippi	25.94	32.46	66.51
Missouri	46.28	35.69	24.89

Nebraska	23.88	33.06	-
Nevada	48.88	43.29	-
New Hampshire	-	33.24	67.84
New Jersey	64.96	73.75	24.34
New Mexico	57.52	21.92	40.05
New York	50.62	40.57	67.32
North Carolina	64.35	33.57	69.18
North Dakota	64.56	72.53	-
Ohio	17.31	18.68	43.44
Oklahoma	52.90	-	63.73
Oregon	36.56	71.11	76.88
Pennsylvania	55.81	17.67	25.01
Rhode Island	30.79	29.8	33.29
South Carolina	-	15.65	26.17
South Dakota	35.81	13.80	-
Tennessee	33.62	21.84	36.57
Texas	42.21	44.73	27.30
Utah	-	-	31.47
Vermont	37.30	52.77	32.80
Virginia	-	10.30	19.63
Washington	42.96	60.09	67.43
West Virginia	11.71	10.28	24.36
Wisconsin	62.97	19.24	48.37
Wyoming	28.19	85.71	-

<sup>\* &</sup>quot;-" symbol was used in case there was no information available

As we can see in Tables 6 and 7, the difference-in-difference (DID) (*TREAT\*POSTYEAR*) estimator is statistically positive, suggesting that after the treatment, the states which had Medicaid expansion (i.e., our treatment group) saw an increase in their health condition in all four of our models. It is important to mention that four states (namely, Alaska, Indiana, Louisiana, and Montana) were dropped from the analysis since they expanded Medicaid towards the end of

2015/2016. In this analysis, we compared citizens who report any kind of Social Security benefits with the ones who declare no income from Social Security.

Table 5 presents the regression results for the DID analysis based on Model 1. In this model, a slight improvement in the health status was observed with respect to Medicaid expansion (not a significant change) from 2011 to 2015 which was expected considering the relatively brief period that we have in this study. Over time, we can observe more changes by monitoring the health condition of Social Security beneficiaries.

Model 2 shows that people with Social Security income (SSI) were impacted differently compared to the ones without it. As presented in Table 6, the improvements in the health condition of Social Security beneficiaries were 28 percent less than the ones without. Also, we found that Medicaid expansion decreased reliance on Social Security program participation since it had a statistically negative significant effect.

Table 6: Regression results for DID analysis

Variable	Model 1	Model 2
Social Security	-	-0.289*** (0.00957)
POSTYEAR	0.00191 (0.00491)	0.00381 (0.00522)
TREAT	0.00484 (0.00343)	0.00162 (0.00590)
TREAT*POSTYEAR	0.00471 (0.00633)	0.00473 (0.00604)
Constant	0.883*** (0.00265)	0.935*** (0.00366)
Observations R-squared	63,452 0.000	63,452 0.120

Robust standard errors in parentheses

<sup>\*\*\*</sup> p<0.01, \*\* p<0.05, \* p<0.1

The results of Models 3 and 4 are presented in Table 7. In Model 4, we considered only the Social Security beneficiaries, therefore, the number of observations were less than Model 3. These results show that the probability of improvement in health conditions, due to Medicaid expansion, is lower among African American households in comparison to white people given the statistically negative effects in both Model 3 and 4. It is important to mention that based on Model 3 there is a significant positive relationship between educated people and their health condition as we compare the pre- and post-Medicaid expansion periods.

In addition, it is not surprising that people with private health insurance had better health condition improvement during this time. As expected, the low-income and medium-income households had lower levels of health conditions in comparison with higher-income households. In Model 3, females reported good health status of 1 percent less than males. Furthermore, the health condition improvement among unemployed people was less than those who are employed. with about 4 percent and 7 percent in Model 3 and 4, respectively.

Table 7: Regression results of DID analysis by considering control variables

Variable	Model 3	Model 4
Social Security	-0.00853***	-
	(0.00314)	0.00.01111
Private Insurance	0.0408*** (0.00472)	0.0861*** (0.0211)
African American	-0.0125**	-0.114**
O.I. D	(0.00583)	(0.0501)
Other Races	-0.00702 (0.00616)	-0.107* (0.0591)
Unmarried	-0.00592*	0.0165
<b>A</b>	(0.00351)	(0.0218)
Age	-0.000205*** (1.21e-05)	0.000110 (7.93e-05)
Income15K-30K	-0.0361***	-0.0374
201/ 501/	(0.00720)	(0.0353)
Income30K-50K	-0.0239***	-0.0697**

	(0.00509)	(0.0284)
Income50K-75K	-0.00451 (0.00392)	-0.0158 (0.0238)
High School	-0.0107** (0.00483)	-0.000944 (0.0261)
Some College	-0.00420 (0.00439)	0.00916 (0.0260)
College	0.0193*** (0.00401)	0.0358 (0.0258)
Female	-0.0111*** (0.00304)	-0.0161 (0.0193)
Unemployed	-0.0489*** (0.00802)	-0.0749* (0.0409)
TREAT*POSTYEAR	0.00774** (0.00382)	0.0534** (0.0213)
Constant	1.015*** (0.00770)	0.753*** (0.0607)
Observations R-squared	32,057 0.033	1,816 0.056

Robust standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

# 5. Conclusion

The focus of this study is to understand the relationship between Medicaid expansion regulations and the health status of Social Security beneficiaries in the different states between 2011 to 2015. Our results confirm that Medicaid expansion had a positive effect on the health condition of the target group. The expansion of Medicaid in 28 states in 2014 provided a unique opportunity for causality estimation of the effect of Medicaid expansion on the health well-being by analyzing the differences in pre- and post-Medicaid expansion. Our findings show evidence that the expansion of Medicaid is associated with an increase in the probability of improving the level of health well-being for those with Social Security income and Social Security disability income benefits.

However, this study shows that there might be a delayed effect of Medicaid expansion on the health well-being of these beneficiaries since this study was able to assess the health condition only one year after the expansion in 2014. Therefore, future research should explore the effect of Medicaid expansion on health condition of Social Security participants over a longer period, given that health related effects can take a long time to become apparent. Our results illustrate the importance of policies that expand Medicaid across the country. Medicaid can be expanded in all states to cover a higher percentage of the population. As more people are covered by health insurance, the overall health of the nation would be improved.

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