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Coverage Impacts Of Work Requirements From The Arkansas Medicaid Program

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COVERAGE IMPACTS OF WORK REQUIREMENTS FROM THE ARKANSAS MEDICAID PROGRAM

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DEDICATION

This project is submitted in remembrance of my grandfather, Donald S. Jacobson. My success is a direct result of his unwavering support, unending patience, and steadfast belief in my ability. Thanks, Gramps.

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ABSTRACT

I examine changes in Medicaid coverage and insurance status surrounding a work requirement policy implemented within the Arkansas Medicaid demonstration waiver. The policy applied to able-bodied, childless adults, aged 30 to 49, not enrolled as students, and was effective from 2018 to 2019. Eligibility was conditional on policy compliance. Taking a sample from the IPUMS American Community Survey database, I use triple-differences modeling to compare Arkansans subject to the policy with unaffected Arkansans and individuals from a set of control states. I find that the policy pilot group in Arkansas was less likely to be insured or have Medicaid coverage in the two years after the work requirement took effect, compared with controls. In 2018 and 2019 respectively, I estimate increases in uninsurance for the pilot group, compared with non-pilot Arkansans, were 7.3 and 10.8 percentage points greater than those experienced by the hypothetical pilot and non-pilot groups from the control states. Similarly, I estimate declines in Medicaid coverage for pilot versus non-pilot-group Arkansans were 6.2 and 10.2 percentage points greater in magnitude, compared with the hypothetical pilot and non-pilot groups from the control states in 2018 and 2019 respectively. In tandem with a series of robustness checks, I outline how asymmetric information, unobservable government intervention, and contemporaneous policies could affect my results.

TABLE OF CONTENTS

Page

ABSTRACT iv

LIST OF TABLES vii

LIST OF FIGURES viii

CHAPTER

I. INTRODUCTION 1

1.1 Brief History of the Medicaid Program 1

1.2 Arkansas Works Background 3

1.3 Literature Review 12

II. RESEARCH DESIGN 15

2.1 Data and Variable Calculations 15

2.2 Empirical Methods 16

III. RESULTS 20

3.1 Primary Model of Uninsurance and Medicaid Coverage 20

3.2 Robustness Checks 21

3.2.1 Age-Restricted Sample 21

3.2.2 Exposed Versus Non-Exposed Groups 22

3.2.3 Controlling for QHP Premiums 23

IV. LIMITATIONS AND DISCUSSION 25

REFERENCES 27

APPENDIX 31

LIST OF TABLES

Table Page

I. Triple-difference coefficients from models of uninsurance and Medicaid coverage 20

II. Triple-difference coefficients from sample limited to ages 30 to 49 22

III. Triple-difference coefficients from model of exposed versus non-exposed groups 22

IV. Quadruple-difference coefficients from model controlling for QHP premiums . 23

V. Summary statistics for entire sample 33

VI. Summary statistics for age-restricted sample 34

VII. Summary statistics for exposed versus non-exposed groups 34

VIII. Full regression results for primary models of uninsurance and Medicaid 35

IX. Full regression results for age-restricted sample 36

X. Full regression results for exposed versus non-exposed groups 37

XI. Full regression results controlling for QHP premiums 38

XII. Triple-difference comparison of reference years 39

XIII. Triple-difference results for private or employer insurance 39

XIV. Variable descriptions 41

LIST OF FIGURES

Figure Page

1. Monthly changes in Arkansas Works and Arkansas Medicaid Enrollment 11

2. Comparison of in-sample insurance and Medicaid trends by group.......................... 16

3. Parallel trends assumption 19

4. Comparison of in-sample insurance and Medicaid trends, ages 30 to 49.................. 39

5. Difference-in-differences empirical exercise.. 40

CHAPTER I

INTRODUCTION

1.1 Brief History of Medicaid

Approved in 1965 as an amendment to the Social Security Act, Medicaid provides no-cost health insurance coverage for Americans with exceptional financial need. With the Affordable Care Act of 2010 (ACA), the program expanded to cover all individuals living at or below 133% of the Federal poverty level (FPL).[1] Under the ACA, states choose whether to expand their Medicaid programs, receiving substantial Federal subsidization upon doing so.[2] Despite evidence that the expansion has increased coverage and access to care, reduced inequality, and generally improved health and economic outcomes for recipients, Medicaid remains a controversial program. Opponents claim the entitlement creates a perverse incentive, discouraging recipients from being productive or working to improve their socioeconomic wellbeing. As such, many states have applied for and been granted demonstration waivers from the Center for Medicare and Medicaid Services (CMS) to implement state-specific changes in their expansion programs.

[1] A 5% buffer was initially included, providing coverage up to 138% FPL in some cases. A federal court ruling made the buffer discretionary for states.
[2] Federal funding initially comprised 100% of expansion costs, decreasing yearly and settling at 90% in perpetuity by 2020.

CMS waivers are typically granted over a five-year period, extendable by up to three years conditional on program success. Waivers allow states to test targeted changes to their Medicaid expansion programs, typically including moderate-to-significant privatization and provisions purported to improve the economic wellbeing and social contribution of recipients. While the changes can often be dramatic, waiver demonstrations must comply with existing Medicaid rules, meet the program objective of providing insurance to those who qualify, and remain budget-neutral for the Federal government. Commonly, states request work or community-engagement requirements as a component of their demonstration. Arkansas is one such state.

While the Arkansas demonstration was initially centered around the colloquially called "private option," in which states use Medicaid funds to purchase private plans in place of public coverage, a 2018 amendment allowed the addition of a work requirement to the waiver. Under the requirement, certain individuals would be subject to monthly reporting to confirm qualifying activity or exemptions. The policy initially applied to able-bodied, childless adults, aged 30 to 49, not currently enrolled as full-time students, but expanded to include individuals aged 19 to 29 in January of 2019.[3]

Since Arkansas was the first state to test such a policy over a significant period, evidence about its effects is scant, albeit consistent with previous research about work requirements in other social programs. In general, the tenor of findings about work requirement policies is that they do little to encourage labor force participation and often cause coverage loss for affected individuals. For this analysis, I focus specifically on

[3] Exemptions were given for pregnant women and individuals undergoing substance abuse treatment. Under AR Works, individuals were responsible for reporting any exemptions.

coverage loss. While work requirement policies are superficially intended to improve employment outcomes, providing insurance for low-income individuals is the primary objective of the Medicaid program. Therefore, any coverage loss associated with program changes, particularly if work requirements do not actually encourage workforce participation and allow individuals to transition to marketplace or private coverage, is an outcome of interest.

I first provide a brief background on the Arkansas CMS waiver demonstration and the eventual work requirement, then cover a selection of related research on work requirement policies of both Medicaid and non-Medicaid origin. I outline an empirical strategy for investigating the impact of the Arkansas policy, including important ways in which my analysis differs from previous ones, and conclude that coverage losses for the policy pilot group compared with the non-pilot group were between 4.1 and 11.3 percentage points greater than those experience by the hypothetical pilot and non-pilot groups from the control states. Among other technical and qualitative limitations, I discuss the possibility that controlling for previous policy changes under the Arkansas program could be critical in achieving a true estimate about the work requirement effect.

1.2 Arkansas Works Background

Arkansas Works (AR Works) was a 2017 extension of a previous Medicaid demonstration waiver, originally called the Arkansas Health Care Independence Program (AHCI). Beginning in 2017, the transition to AR Works from AHCI was initially limited to the addition of monthly premiums and other cost-sharing measures for individuals receiving private-option coverage, called qualified health plans (QHP) under AR Works. Shortly thereafter, the Arkansas Department of Human Services (DHS) requested an amendment to add a work and community-engagement requirement. The amendment was approved by CMS in March 2018 and implemented in June of the same year.[4] Officially, the policy was intended to improve the economic wellbeing of AR Works recipients by encouraging work. Court challenges to the amendment followed, with the U.S. District Court for the District of Columbia issuing an injunction to pause the amendment in March 2019. CMS unsuccessfully appealed the ruling on behalf of Arkansas.[5]

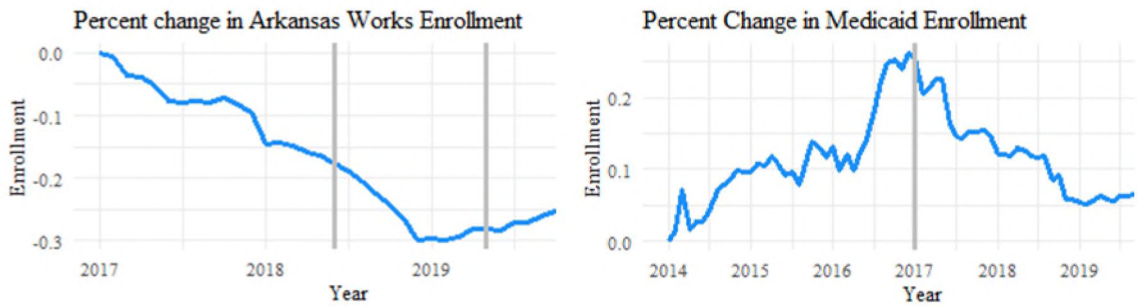
From inception and for the duration of the program, AR Works underwent a dramatic decline in enrollment. Between late 2016 and early 2020, enrollment fell from an AHCI high of 334,113 to an AR Works low of 249,087 in the last month the waiver was active, a decrease of around 25%. Simultaneously, Arkansas experienced a statewide decline in Medicaid participation, beginning at a post-ACA high of 948,181 in December 2016 and falling to 808,905 by January 2020.[6] Figure 1, Panels A and B illustrate enrollment percent changes in both AR Works and statewide Medicaid enrollment. At the peak of decline, AR Works enrollment fell by around 30%.

[4] CMS denied an additional request by Arkansas to limit AR Works eligibility to individuals earning less than 100% FPL.

[5] As recently as April 2022, Arkansas sought a writ of certiorari from the U.S. Supreme Court, which was denied when CMS withdrew its approval of the amendment.

[6] Because CMS issued a temporary, covid-related pause to all demonstration waivers in March 2020, which significantly increased enrollment nationwide, I choose to report data from before the pause. The temporary order required that all state Medicaid programs be conducted as normal and expanded eligibility.

Figure 1: Monthly Changes in Arkansas Works and Medicaid Enrollment.



Panel A: Vertical lines indicate work requirement period. Data compiled manually from annual state reports issued to CMS by Arkansas. Standard CMS data does not differentiate between AR Works and traditional Medicaid.

Panel B: Vertical line indicates AR Works beginning. Enrollment includes AHCI/AR Works, traditional Medicaid, and CHIP. Data taken from CMS monthly eligibility and enrollment reports.

In addition to declining participation under AR Works, monthly assessments issued by Arkansas DHS through the duration of the work requirement policy imply problems with reporting. Having initially notified enrollees they were subject to the requirement in May 2017, allowing a two-month window to report exemptions prior to the policy taking effect, the state published that only 1.63% of the 27,140 notified individuals had satisfied the reporting requirement. Implementation was gradual, with additional participants in the pilot group notified on a rolling basis through September 2018. By January 2019, when individuals aged 18 to 29 became subject to the requirement, reporting compliance had increased to around 20%. Over the entire policy period, Arkansas DHS reported that 18,614 individuals had lost coverage out of failure to meet or report that they met or were exempt from the requirement. By March 2019 when the policy was halted by court ruling, Arkansas DHS reported that just 10.5% had regained coverage, the vast majority reapplying for AR Works.

1.3 Literature Review

While a substantial and continuously growing body of research covers the topic of general means-tested work requirements, lack of implementation in the Medicaid program makes evidence and existing research limited. I outline some important findings about general means-tested benefits and work requirements, then focus on Medicaid-specific research.

The goal of work requirements is to increase the productivity and economic wellbeing of low-income individuals. Under this stated objective, the primary assumption is that means-tested benefits discourage individuals from participating in the first place. On this topic, Marinescu (2018) finds unconditional cash transfers, the most direct form of economic subsidy, have a minimal effect on labor supply. Specifically, Marinescu finds a 10% increase in unconditional cash transfers results in a 1% decrease in labor supply, and that transfer programs improve health and educational outcomes, decrease criminal recidivism, and decrease alcohol and substance abuse rates. Aizer, Lleras-Muney, and Eli (2020) find direct payments have no impact on work, but do not find significant evidence that they improve the long-run economic stability of recipients. Similarly, Gray et. al. (2021) find no effect on employment when Supplemental Nutritional Assistance Program (SNAP) work requirements are implemented, instead finding a statistically-significant 53% decrease in program participation.

On the targeting of work requirement policies, Alik-Lagrange and Ravallion (2015) importantly note that individuals may not be unemployed by choice, and that strict work requirement policies fail to consider such situations. Intuitively, this may result in an excess number of well-meaning individuals losing benefits. In this case, more targeted policies offering work retraining or other labor force reentry assistance could be superior to strict work requirements.

Analyzing work requirements in the Temporary Assistance for Needy Families (TANF) program, Lee et. al. (2004) find that TANF disenrollment due to work requirement policies induces externalities on food stability. Importantly, they find that human capital-related variables are a better predictor of employment outcomes than work requirement policies; that is, while the policies may encourage labor force participation, barriers to human capital act as a determinant that offsets individual efforts. In their sample, a plurality of individuals had such barriers.

Conversely, Mulligan and Gallen (2013) predict a large, negative labor supply effect associated with direct payments and other social benefits, arguing the programs create a perverse incentive. Mulligan finds stimulus checks and expanded unemployment benefits during the 2007 to 2010 financial crisis exacerbated already-negative employment effects. Dague et. al. (2017) support Mulligan, finding public health insurance leads to a 12% decline in employment.

On the Medicaid-specific front, research is limited. While eleven states have attempted to add work requirements as of 2022, only Arkansas has successfully done so. Still, existing research is consistent with findings about other programs. Sommers et. al. (2018 & 2020) study the AR Works program and find no evidence that work requirements lead enrollees to become more financially stable, nor that affected individuals are more likely to seek work. Additionally, they find that affected individuals experience an increase in medical debt and delay necessary care and medications at a higher rate than those outside the affected group. The researchers estimate that greater than 95% of individuals affected by the policy were either employed or exempt, and agree that asymmetric information may have led to excess disenrollment. This is consistent with Gray et. al. (2021), who find that SNAP work requirements result in a significant decline in program participation.

Tello-Trillo (2021) uses evidence from a large 2005 disenrollment from TennCare, the Tennessee Medicaid program. Similar to Sommers et. al. (2020), Tello-Trillo finds disenrollment from public health insurance leads to a decrease in preventative care and an increase in the amount of time incapacitated individuals take to seek care. He adds that disenrollment does not appear to reduce emergency department visits; intuitively, this suggest some of the financial burden could be shifted to hospital systems when individuals lose coverage. Conversely, Garthwaite et. al. (2014) find significant labor supply increases associated with the TennCare disenrollment, but note affected individuals may have simply worked the minimum required hours to retain employer-sponsored insurance.

Focusing specifically on employment outcomes for Medicaid, Baicker et. al. (2014) reject the hypothesis that Medicaid causes a decrease in employment. Buchmueller et. al. (2019) find no evidence of a perverse incentive during transitions from unemployment to regular employment, asserting that the ACA expansion has been successful in extending coverage to the unemployed and claiming any negative labor supply effects have been minimal. Garret et. al. (2017) support this finding in an earlier paper.

Meera and Frank (2006) highlight that individuals facing mental health or substance abuse problems, or those caring for children with behavioral issues are less likely to move into work when requirements are enacted and more likely than others to lose coverage. Intuitively, many of these individuals may also lack access to technology or other reporting methods. Since individuals in Arkansas were required to self-report such exemptions, this could have resulted in an excess number of exempt individuals losing coverage.

CHAPTER II

RESEARCH DESIGN

2.1 Data and Variable Calculations

Using the IPUMS USA database, I take an extract from the American Community Survey (ACS) covering the years 2016 to 2019. The data is shortened to include only Arkansas and a set of control states, Kentucky, Louisiana and Texas, the same states used by Sommers et. al. (2020) in that analysis of the policy. I limit the sample to individuals aged 19 to 64 with income at or below 138% FPL, consistent with the population for AR Works. Dummy columns are created for year and state, as well as a vector of demographic characteristics including disability status, language, age group, race, student status, level of education, marital status, sex, and parental status. I then create dummy variables to indicate Medicaid coverage, private or employer-sponsored insurance, and any health insurance. I then subset again to include only individuals aged 30 to 49, isolating the specific age group affected by the work requirement policy. Demographic statistics for the entire sample are summarized in Table X, with specific descriptions and relevant calculations in Table XIV. The limited 30 to 49 sample is summarized in Table VI.

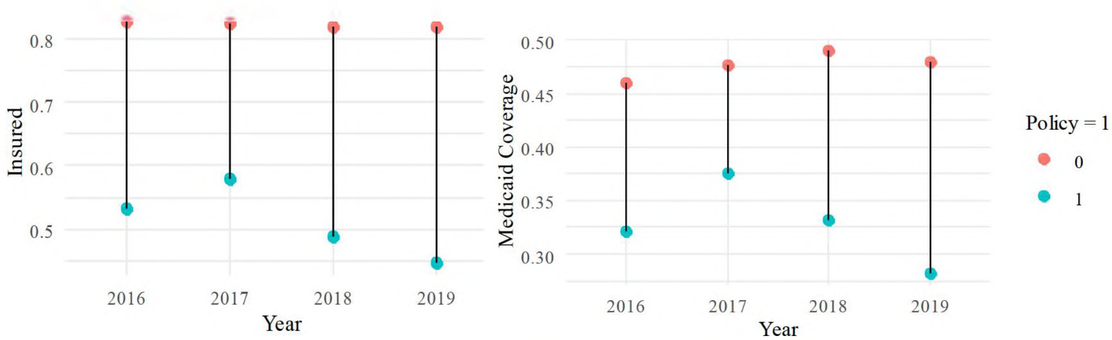
I note here that although my dataset is comprised of individual observations, it constitutes a panel at the state and group levels since I do not have repeated observations for the same individuals across years. This is inherent in ACS data, which is collected yearly but does not survey the same individuals year-after-year.

2.2 Empirical Methods

My analysis differs from Sommers et. al. (2020) in three critical ways. First, that study relied on proprietary survey data and I use publicly available data from ACS. Next, Sommers and coresearchers measure changes in uninsured status and Medicaid coverage using 2016 as a reference year, setting the policy group as low-income individuals aged 30 to 49. The researchers chose 2016 as the reference year for convenience, repurposing data from a previous analysis. The 2020 study does not include any data from 2017. I change the reference year to 2017 and more closely specify the pilot group to be as consistent as possible with the policy language.

Observing the significant enrollment declines shown in Figure 1, Panel B, I hypothesize that differences in Medicaid coverage between 2016 and 2017 could cause misestimation of the work requirement effect. If the expectation that individuals in the policy group had Medicaid or were insured was different in 2017 than in 2016, the final triple-difference model will misestimate the true difference between groups and years, and therefore misestimate the policy impact. Figure 2 shows the in-sample insured and Medicaid rates for the pilot group from 2016 to 2019, compared with low-income Arkansans not affected by the work requirement.

Figure 2: Comparison of in-sample insured rate and Medicaid coverage.



Panel A: In-sample uninsured rates for policy and non-policy groups in Arkansas.

Panel B: In-sample Medicaid coverage rates for policy and non-policy groups in Arkansas.

The results in Figure 2 are consistent with the statewide trend in Medicaid enrollment. Based on this preliminary evidence, I test triple-difference models checking both 2016 and 2017 as the reference year and find changes in both coefficients and significance. As a result, I choose to use 2017 as the reference year in this analysis. Results from comparison models are attached as Table XII. I include an additional empirical exercise using a synthetic longitudinal dataset to demonstrate the effect. For the main analysis, I first test differences between 2017 and 2018, then from 2017 to 2019. I conduct an additional analysis limiting the sample to only individuals aged 30 to 49. Intuitively, individuals in different age groups may have different demand for healthcare and insurance, and this limited model tests only changes within the affected age group. I then perform additional robustness checks including limiting the sample to exposed and non-exposed groups, then I test for variation caused by the preexisting QHP premiums. My primary triple-difference model is specified as follows.

$$
\begin{aligned}
Insured_{ast} = \beta_0 + \beta_1 \boldsymbol{X'}_{ast} + \beta_2 State_s + \beta_3 Year_t + \beta_4 Policy_a \\
+ \beta_5 Arkansas_s + \beta_6 Arkansas_s * Policy_a + \beta_7 Policy_a \\
* 2018_t + \beta_8 Arkansas_s * 2018_t + \beta_9 Arkansas_s \\
* Policy_a * 2018_t + \beta_{10} Arkansas_s * 2019_t + \beta_{11} Policy_a \\
* 2019_t + \beta_{12} Arkansas_s * Policy_a * 2019_t + \varepsilon_{ast}
\end{aligned} \tag{1}
$$

Subscript ast represents the outcome for group a, in state s, at time t. Consistent with the group panel described in the previous section, subscript i is excluded. $\boldsymbol{X'}$ is a vector of demographic characteristics, $State_s$ is a set of dummy variables that represents either Arkansas or the control states of Kentucky, Louisiana, and Texas, and $Year_t$ is a set of dummy variables representing the years 2017, 2018, and 2019, with the reference year set as 2017. β_9 is the triple-difference estimator capturing the outcome of interest from 2017 to 2018, which compares the difference in coverage between the policy pilot group in Arkansas with non-pilot Arkansans with the difference between the treatment-eligible and non-treatment-eligible groups from the control states. β_{12} is the triple-difference estimator capturing the analogous difference in 2019. The dependent variable $Insured_{ast}$ represents either Medicaid coverage or insured status in respective models. All models use heteroskedasticity-robust standard errors.

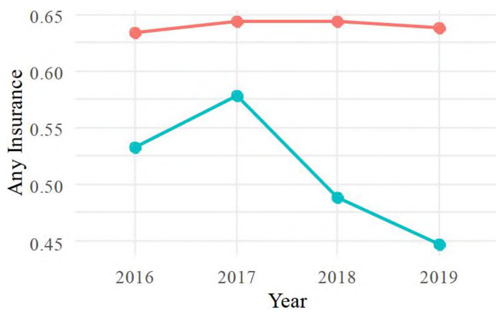
To calculate the policy variable, I identify individuals fitting the pilot group criteria as stated in Arkansas's amendment application and the CMS approval letter. The group includes childless, able-bodied adults, aged 30 to 49, not enrolled as full-time students. This is the third way in which my analysis differs from Sommers et. al. (2020).

While that study correctly identifies the policy group in the text, models for insurance and Medicaid coverage test changes for all low-income Arkansans aged 30 to 49.[7] As such, it is possible some unknown number unaffected individuals are included in the variable. Appendix Figure A1 recreates the plots in Figure 2 for all low-income Arkansans aged 30 to 49, demonstrating that the trend is different than when taking the stricter definition of the pilot group. In my sample of low-income individuals in Arkansas, the 30 to 49 group is significantly larger, capturing on average around 1,600 individuals per year compared with 450 for the true pilot group. If the same is true of the sample used in Sommers et. al. (2020), the triple-difference model will underestimate the policy effect. For this reason, I specify the stricter pilot group as defined in CMS and state documents.

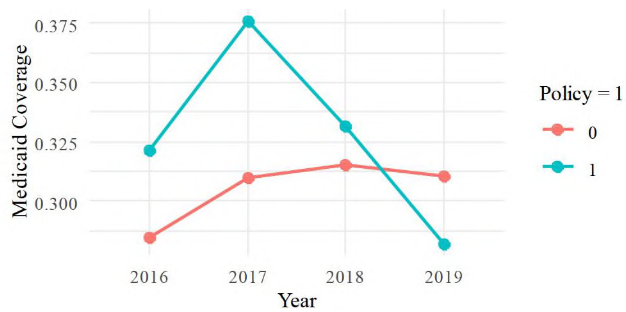
Lastly, I test the critical parallel trends assumption. Under this assumption, the trend for treatment and control groups in difference-in-difference or triple-difference models must be consistent prior to treatment. Figure 3 shows the time trend for the pilot group in Arkansas, compared with non-pilot Arkansans and individuals in control states.

[7] Sommers et. al. (2020). Exhibit 1. "Data points indicate the coefficients from a triple-difference model, comparing adults in the target age range…vs. other age groups."

Figure 3: Parallel trends assumption.



Panel A: Comparison of insurance coverage for policy pilot group in Arkansas with non-pilot Arkansans and low-income individuals from control states.



Panel B: Comparison of Medicaid coverage for policy pilot group in Arkansas with non-pilot Arkansans and low-income individuals from control states.

CHAPTER III

RESULTS

3.1 Primary Model of Uninsurance and Medicaid Coverage

I find a statistically significant decline in Medicaid coverage and an increase in uninsurance for the policy pilot group in Arkansas in both 2018 and 2019. In 2018, the increase in uninsurance for the pilot group compared with the non-pilot group in Arkansas was 7.3 percentage points greater than the increase for the hypothetical treatment-eligible and non-treatment-eligible groups from the control states. Likewise, the decrease in Medicaid coverage for pilot versus non-pilot Arkansans was 6.2 percentage points greater in magnitude than the difference observed among the treatment-eligible and non-treatment-eligible groups from the control states. Contradicting previous results about the policy effect in 2019, I find the increase in uninsurance for the pilot compared with non-pilot Arkansans was 10.6 percentage points greater than that of the treatment-eligible and non-treatment-eligible groups from the control states. Finally, the comparable decline in Medicaid coverage for pilot and non-pilot Arkansans was 10.2 percentage points greater than for the treatment-eligible and non-treatment-eligible groups from the control states. Triple-difference coefficients are reported in Table I, with results from the full model in Table VII.

Table I: Triple-difference coefficients from models of uninsurance and Medicaid coverage.

Triple-Difference Results

	Uninsured	Medicaid
Arkansas*Policy*2018	0.073** (0.034)	-0.062* (0.033)
Arkansas*Policy*2019	0.108*** (0.034)	-0.102*** (0.033)
Observations	151,713	151,713
Adjusted R^2	0.161	0.165
F Statistic (df = 22; 151690)	1,327.248***	1,362.247***

Standard errors in parentheses. *, **, *** indicate significance at 90%, 95%, and 99%.

3.2 Robustness Checks

In this subsection I perform various checks to ensure the robustness of the primary result. I first check the results when limiting the sample to include only individuals aged 30 to assuming there is inherent age-related variation in healthcare demand. Next, I limit the sample to include only the exposed and non-exposed groups, where the exposed group is the strict policy population from Arkansas and the non-exposed includes the hypothetical equivalent group from the control states. Intuitively, this result captures only individuals directly subject to the policy and compares them with a group assumed to have similar healthcare demand. Finally, I perform a quadruple-differences regression which adds an interaction between the work requirement and preexisting monthly premiums to which certain individuals were subject.

3.2.1 Age-Restricted Sample

When limiting the sample to individuals aged 30 to 49, I find increased estimates for coverage loss in 2018 and 2019, though estimates for Medicaid coverage loss are different from the primary model. For Arkansans aged 30 to 49 and subject to the policy compared with the non-policy group in the same age range, the 2018 increase in uninsurance was 10.2 percentage points greater than the analogous difference for the control states. Likewise, the 2018 decline in Medicaid coverage for Arkansans aged 30 to 49 and subject to the policy compared with those not subject was 8 percentage points greater in magnitude than for the same group from the control states. For 2019, the estimated decrease in Medicaid coverage was 8.4 percentage points, less than the predicted 10.2 percentage point decline from the primary model including all age groups, while policy-subject individuals in the target age range were 11.3 percentage points more likely to be uninsured than the same group from the control states. Triple-difference coefficients from the age-limited model are reported in Table II, with full regression results reported in Table IX.

Table II: Triple-Difference coefficients from age-restricted model.

Triple-Difference Coefficients: Age-Limited Sample

	Uninsured	Medicaid
Arkansas*Policy*2018	0.102^{***} (0.036)	-0.080^{**} (0.033)
Arkansas*Policy*2019	0.113^{***} (0.036)	-0.084^{**} (0.034)
Observations	58,722	58,722
Adjusted R^2	0.187	0.195
F Statistic (df = 18; 58703)	751.215^{***}	788.815^{***}

Standard errors in parentheses. *, **, *** indicate significance at 90%, 95%, and 99%.

3.2.2 Exposed Versus Non-Exposed Groups

Limiting the sample to include only individuals directly exposed to the policy in Arkansas and the hypothetical policy group from the control states, I find similar results. For the policy pilot group in Arkansas in 2018 and 2019, I find increases in uninsurance were 6.7 and 9.7 percentage points greater compared with the hypothetical pilot group from the control states. I find insufficient evidence to claim a difference in Medicaid coverage for the pilot group in 2018, but an 8.8 percentage point greater decline in 2019 than experienced by the hypothetical group from the control states. Difference-in-difference coefficients are reported in Table III.

Table III: Difference-in-difference coefficients from model of exposed versus non-exposed groups.

Regression Results: Exposed vs. Non-Exposed Groups

	Dependent variable:	
	Uninsured	Medicaid
Arkansas*2018	0.067** (0.031)	-0.041 (0.032)
Arkansas*2019	0.097*** (0.031)	-0.088*** (0.032)
Constant	0.667*** (0.009)	0.152*** (0.011)
Observations	17,606	17,606
Adjusted R^2	0.091	0.048
F Statistic (df = 10; 17595)	177.473***	89.620***

Standard errors in parentheses. *, **, *** indicate significance at 90%, 95%, and 99%.

3.2.3 Controlling for QHP Premiums

To test for variation caused by preexisting QHP premiums, a policy that began over a year prior to the work requirement and affected all AR Works recipients earning between 100% and 138% FPL, I employ a quadruple-differences regression incorporating the interaction between QHP premiums and the work requirement by group and year. In addition to the triple-difference coefficients from the primary model, the quadruple-differences regression adds an interaction term to capture the effect for individuals in Arkansas subject to both the work requirement and monthly premiums in a given year, as well as all lower-order interactions.

I find insufficient evidence to claim an interaction between the work requirement and QHP premium policies for the affected group in either 2018 or 2019, compared with Arkansans subject to only one of the policies, Arkansans subject to neither policy, or individuals from the control states. I include the quadruple-difference coefficients as Table IV, with full results in the appendix.

Table IV: Triple and quadruple-difference coefficients from model controlling for QHP premiums.

Regression Results: Quadruple-Differences

	Dependent variable:	
	Uninsured	Medicaid
Arkansas*Policy*2018	0.065*** (0.037)	-0.078** (0.037)
Arkansas*Premium*2018	-0.020 (0.025)	0.004 (0.025)
Arkansas*Policy*2019	0.140*** (0.037)	-0.129*** (0.037)
Arkansas*Premium*2019	-0.0004 (0.025)	-0.050** (0.025)
Arkansas*Policy*Premium*2018	0.010 (0.085)	0.082 (0.085)
Arkansas*Policy*Premium*2019	-0.142 (0.080)	0.123 (0.080)
Constant	0.253*** (0.009)	0.288*** (0.009)
Observations	151,713	151,713
Adjusted R^2	0.165	0.166
F Statistic (df = 34; 151678)	880.241***	891.566***

Standard errors in parentheses. *, **, *** indicate significance at 90%, 95%, and 99%.

Overall, my results are consistent with observed trends in AR Works enrollment and statewide Medicaid enrollment, and the closeness in magnitude for the coefficients between models of Medicaid coverage and uninsurance suggests Medicaid disenrollment was the primary driver of coverage loss for the pilot group. The finding that Medicaid disenrollment and coverage loss continued into 2019 is unique. Sommers et. al. (2020) hypothesized that individuals who lost coverage under AR Works had regained insurance by that year, either through private or employer insurance.[8] I run a separate triple-difference model with identical specification, setting private or employer insurance as the dependent variable, and find insufficient evidence to claim the pilot group was more

[8] While precise regression results are not reported in the 2020 paper, Exhibit 1 shows that no models of insurance in 2019 are significant; in particular, the plot in Exhibit 1 shows confidence intervals overlapping zero.

likely to have private or employer insurance in 2019 than in previous years.[9] Those results are included as Table XIII.

[9] Since ACA start in 2014, marketplace coverage in Arkansas has fluctuated between 60,000 and 70,000 individuals, around 2% of all non-elderly Arkansas residents.

CHAPTER IV

LIMITATIONS AND DISCUSSION

This analysis is limited by data availability, time, unobservable state-policy effects, and potentially by interactions with preexisting AR Works policy changes. First, I do not have access to state administrative data, and therefore cannot directly observe the strict pilot group. I argue that imputing the target population based on the criteria specified in CMS and Arkansas DHS documents sufficiently identifies eligibility, exemptions for substance abuse treatment or pregnancy notwithstanding. In addition, analyzing the policy on a yearly basis fails to capture intra-year variation in coverage and any more immediate effects. This limitation can only be fully remedied with access to state or CMS administrative data.

Any analysis of Medicaid over the period in question will be limited by changes related to the Covid-19 pandemic. Medicaid enrollment across all fifty states increased dramatically when CMS temporarily paused all waiver programs in March 2020. The pause forced all states to administer Medicaid in accordance with federal guidelines, and marginally expanded eligibility. This makes analysis of post-policy recovery effects limited, given the narrow window between the policy end and CMS waiver pause. Presumably, some lagged effect may have persisted through 2019 but been washed out by the CMS Covid-related changes. Unusually strict enforcement rules may also contribute to incalculable variation in results.

Noting that Arkansas frequently disqualifies individuals from Medicaid coverage based on technicalities, a 2018 Arkansas Times investigative report found the state had disenrolled nearly 60,000 individuals from Medicaid between January 2017 and August 2018 based on technicalities. Among other stringencies, the report notes that AR Works cases would be closed if individuals failed to report policy compliance or exemption within ten days after state notification letters were postmarked. This could be prohibitive for recipients since they often did not receive the mailed notifications until day eight or later. Arkansas DHS reports support this hypothesis, confirming that 60% of Medicaid coverage losses in June 2018 were based on technicalities. The Arkansas Times report also links AR Works disenrollment to the statewide Medicaid trend, adding that Arkansas Medicaid enrollment was, as of 2018, declining faster than any other expansion state. If there was significant overlap between the pilot group and the group subject to 2017 and 2018 technicality-related disenrollment, my model will overestimate the work requirement policy effect.

Importantly, it remains possible that interactions between the AR Works work requirement and previous policy changes affect my results. Since the initial Medicaid expansion in 2014, Arkansas has taken the increasingly common but unconventional approach of using Medicaid funds to purchase private plans for AHCI, and subsequently AR Works recipients. These plans are purchased through the ACA marketplace. From 2014 to 2017, the plans were provided to recipients at no cost, with the government directly reimbursing insurers for any applicable copays, coinsurance, deductibles, premiums, or prescription costs. With the transition to AR Works, however, beneficiaries became responsible for cost-sharing, and individuals with income between 100% and 138% FPL were charged additional monthly premiums. Premiums and cost-sharing in Medicaid are well-studied and known to have deleterious impacts on coverage and access to care, even when eligibility is not conditioned on payment. While my results are insufficient to claim significance for monthly premiums in explaining coverage loss during AR Works, it is possible a larger sample of affected individuals would tell a different story. The sample of individuals subject to both work requirements and premiums is small, capturing an average of 85 Arkansans in each year.

My results are relevant to ongoing events as well. While Arkansas has now exhausted its options after an April 2022 Supreme Court opinion denied the state's appeal attempting to reinstate the policy, many states continue to pursue Medicaid work requirements in the face of mounting evidence questioning their efficacy and finding adverse effects. At present, two expansion states, Idaho, and Montana, have pending work requirements, and four non-expansion states, Mississippi, Oklahoma, South Dakota, and Tennessee have similar policies pending. It is unlikely that CMS will approve any of the requests under the current presidential administration, given its previous decisions about AR Works and a similar policy in Ohio.[10] Work requirements are also under consideration for other means-tested benefits, as some critics claim direct payments like the expanded child tax credit create a perverse incentive. Federal legislators have proposed tying the credit to a work requirement to discourage recipients from spending

[10] In August 2021, CMS withdrew a previously approved work requirement for Ohio after the amendment was initially halted by the Covid-19 waiver pause.

the payments carelessly.[11] At present, I am unaware of any evidence to support this hypothesis. I argue that this and other analyses should caution policymakers that the deleterious impacts of such a requirement may offset any benefits.

I do not specifically disprove the perverse incentive hypothesis here, though evidence that most means-tested beneficiaries are already employed raises questions about the targeting of such policies. In my sample, 85% of low-income, working-age adults are employed. Given the ACS randomly samples 1% of the population each year, the true national average is likely to be similar. In the case of Arkansas, only around 5% of individuals within the target age group were truly subject to the requirement. Sommers et. al. (2020) point out that a targeted support policy in Montana's Medicaid program, through which unemployed individuals were given options of job training or tuition assistance, was found to be successful. Importantly, the policy was not accompanied by a reporting requirement or loss of eligibility for noncompliance. This suggests that more precisely targeted policies with less downside for recipients are a potential alternative to be studied.

Finally, administrative cost is a critical economic outcome yet to be studied. While the U.S. Government Accountability Office (GAO) estimated in 2019 that states had spent upwards of $408 million implementing work requirements, only one of which ultimately took effect, CMS at the time denied the GAO's request to make administrative data public. If work requirements do not actually encourage work, it is reasonable to hypothesize that the cost to taxpayers for such policies offsets the benefit. The GAO

[11] In December 2021, while Congress debated the extended child tax credit, Senator Joe Manchin, at present a pivotal vote in the U.S. legislature and a major proponent of work requirements, stated his concern that recipients of the credit would spend the payments on "drugs and hunting trips."

report also notes that states are not presently required to report cost estimates about waiver demonstrations, which prohibits the office from testing whether work requirement policies or CMS waiver demonstrations are truly budget neutral as required. Qualitative evidence from Arkansas supports the testing of this hypothesis. Through 2018, for example, the cost per individual remained relatively constant as enrollment declined by around 40,000, according to a calendar-year report by Arkansas DHS.

In conclusion, the importance of continuing research into work requirement policies is clear. While it is critical that researchers consider heterogeneity between programs as not all policies are identical, evidence strongly indicates deleterious effects on coverage and other negative externalities. I also stress the importance of considering unobservable state-specific enforcement priorities in assessing Medicaid enrollment in particular, since discretionary decisions by states can themselves cause excess disenrollment not related to eligibility. Similarly, I hypothesize about the importance of considering contemporaneous policies when examining new ones. On the technical front, I show the importance of properly specified reference periods and treatment groups when using difference-in-difference or triple-difference modeling to conduct quasi-experimental analyses and improve on the results gathered by previous studies. Finally, I outline the importance of branching out to consider other economic outcomes associated with Medicaid demonstration waivers, including both the cost to taxpayers and whether such programs truly remain budget neutral as mandated by federal law.

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APPENDIX

	Arkansas (N=18309)	Kentucky (N=26436)	Louisiana (N=27386)	Texas (N=132605)
Age Group				
19-29	5957 (32.5%)	8838 (33.4%)	8477 (31.0%)	44959 (33.9%)
30-39	3726 (20.4%)	5319 (20.1%)	5859 (21.4%)	29304 (22.1%)
40-49	2995 (16.4%)	4226 (16.0%)	4301 (15.7%)	23385 (17.6%)
50-59	3609 (19.7%)	5253 (19.9%)	5609 (20.5%)	22912 (17.3%)
60-64	2022 (11.0%)	2800 (10.6%)	3140 (11.5%)	12045 (9.1%)
Disability	5573 (30.4%)	8465 (32.0%)	7034 (25.7%)	27685 (20.9%)
No English Spoken	328 (1.8%)	363 (1.4%)	699 (2.6%)	16615 (12.5%)
Non-White	4849 (26.5%)	3559 (13.5%)	13618 (49.7%)	37114 (28.0%)
Student	2922 (16.0%)	4117 (15.6%)	3919 (14.3%)	22346 (16.9%)
College Graduate	1291 (7.1%)	2078 (7.9%)	2285 (8.3%)	13423 (10.1%)
Married	13210 (72.2%)	19279 (72.9%)	21597 (78.9%)	91823 (69.2%)
Female	9494 (51.9%)	13486 (51.0%)	14502 (53.0%)	67661 (51.0%)
Parent	6156 (33.6%)	8285 (31.3%)	8532 (31.2%)	49200 (37.1%)
Medicaid Coverage	8441 (46.1%)	14762 (55.8%)	13004 (47.5%)	26256 (19.8%)
Private or Employer Insurance	5808 (31.7%)	7657 (29.0%)	8032 (29.3%)	44685 (33.7%)
Uninsured	3829 (20.9%)	3624 (13.7%)	6378 (23.3%)	60157 (45.4%)
Policy	1863 (10.2%)	2837 (10.7%)	3553 (13.0%)	15215 (11.5%)

Table V: Descriptive statistics for primary sample. Includes all low-income individuals of working age.

	Arkansas (N=5070)	Kentucky (N=7106)	Louisiana (N=7690)	Texas (N=38856)
Disability	1477 (29.1%)	2154 (30.3%)	1598 (20.8%)	6973 (17.9%)
No English Spoken	156 (3.1%)	175 (2.5%)	305 (4.0%)	6691 (17.2%)
Non-White	1377 (27.2%)	937 (13.2%)	3917 (50.9%)	11098 (28.6%)
Student	239 (4.7%)	321 (4.5%)	479 (6.2%)	2241 (5.8%)
College Graduate	387 (7.6%)	581 (8.2%)	675 (8.8%)	3919 (10.1%)
Married	3249 (64.1%)	4556 (64.1%)	5705 (74.2%)	22905 (58.9%)
Female	2577 (50.8%)	3509 (49.4%)	4079 (53.0%)	19982 (51.4%)
Parent	2669 (52.6%)	3515 (49.5%)	3722 (48.4%)	21999 (56.6%)
Medicaid Coverage	2563 (50.6%)	4482 (63.1%)	4063 (52.8%)	7463 (19.2%)
Private or Employer Insurance	1142 (22.5%)	1297 (18.3%)	1716 (22.3%)	9837 (25.3%)
Uninsured	1411 (27.8%)	1341 (18.9%)	2046 (26.6%)	21515 (55.4%)
Policy	1399 (27.6%)	2134 (30.0%)	2726 (35.4%)	11347 (29.2%)

Table VI: Descriptive statistics for sample limited to ages 30 to 49.

	Arkansas (N=1399)	Kentucky (N=2134)	Louisiana (N=2726)	Texas (N=11347)
No English Spoken	18 (1.3%)	22 (1.0%)	103 (3.8%)	1171 (10.3%)
Non-White	429 (30.7%)	352 (16.5%)	1434 (52.6%)	3643 (32.1%)
College Graduate	95 (6.8%)	149 (7.0%)	246 (9.0%)	1127 (9.9%)
Married	1142 (81.6%)	1742 (81.6%)	2320 (85.1%)	9030 (79.6%)
Female	464 (33.2%)	696 (32.6%)	918 (33.7%)	3538 (31.2%)
Medicaid Coverage	463 (33.1%)	1128 (52.9%)	1112 (40.8%)	1258 (11.1%)
Private or Employer Insurance	228 (16.3%)	298 (14.0%)	469 (17.2%)	2088 (18.4%)
Uninsured	691 (49.4%)	706 (33.1%)	1143 (41.9%)	7962 (70.2%)
Policy	1399 (100%)	2134 (100%)	2726 (100%)	11347 (100%)

Table VII: Descriptive statistics for exposed versus non-exposed sample.

Regression Results: Primary model of insurance status

	Dependent variable:	
	Uninsured	Medicaid
Female	-0.106*** (0.002)	0.088*** (0.002)
Married	0.002 (0.003)	0.055*** (0.003)
Non-White	0.010*** (0.003)	0.021*** (0.002)
No-English	0.287*** (0.004)	-0.121*** (0.004)
College	-0.133*** (0.004)	-0.132*** (0.003)
Kentucky	-0.061*** (0.006)	0.098*** (0.008)
Louisiana	0.0002 (0.007)	0.036*** (0.008)
Texas	0.222*** (0.006)	-0.244*** (0.008)
30-39	0.048*** (0.003)	0.154*** (0.003)
40-49	0.009** (0.004)	0.174*** (0.004)
50-59	-0.028*** (0.003)	0.192*** (0.003)
60-64	-0.114*** (0.004)	0.207*** (0.004)
2018	-0.001 (0.003)	0.006* (0.003)
2019	0.007** (0.003)	-0.001 (0.003)
Policy	0.205*** (0.007)	-0.142*** (0.006)
Arkansas*2018	0.015* (0.009)	0.007 (0.011)
Policy*2018	-0.008 (0.009)	0.012 (0.008)
Arkansas*Policy	-0.010 (0.024)	0.0001 (0.023)
Arkansas*2019	0.002 (0.009)	0.004 (0.011)
Policy*2019	0.002 (0.009)	0.012 (0.008)
Arkansas*Policy*2018	0.073** (0.034)	-0.062* (0.033)
Arkansas*Policy*2019	0.108*** (0.034)	-0.102*** (0.033)
Constant	0.240*** (0.007)	0.280*** (0.008)
Observations	151,713	151,713
Adjusted R^2	0.161	0.165
F Statistic (df = 22; 151690)	1,327.248***	1,362.247***

Standard errors in parentheses. *, **, *** indicate significance at 90%, 95%, and 99%.

Table VIII: Full regression results for primary models of uninsurance and Medicaid coverage.

Regression Results: Age-Limited Sample

	Dependent variable:	
	Uninsured	Medicaid
Female	-0.122*** (0.004)	0.094*** (0.004)
Married	0.015*** (0.004)	0.070*** (0.004)
Non-White	-0.008* (0.004)	-0.0005 (0.004)
No-English	0.282*** (0.006)	-0.137*** (0.005)
College Graduate	-0.144*** (0.006)	-0.108*** (0.006)
Kentucky	-0.079*** (0.014)	0.104*** (0.013)
Louisiana	-0.010 (0.014)	0.002 (0.013)
Texas	0.253*** (0.013)	-0.311*** (0.012)
2018	-0.001 (0.006)	0.005 (0.005)
2019	0.010* (0.006)	-0.006 (0.005)
Policy	0.199*** (0.007)	-0.142*** (0.007)
Arkansas*2018	-0.015 (0.019)	0.026 (0.018)
Policy*2018	-0.009 (0.010)	0.013 (0.010)
Arkansas*Policy	0.005 (0.025)	-0.053** (0.023)
Arkansas*2019	-0.001 (0.019)	-0.014 (0.018)
Policy*2019	-0.002 (0.010)	0.017* (0.010)
Arkansas*Policy*2018	0.102*** (0.036)	-0.080** (0.033)
Arkansas*Policy*2019	0.113*** (0.036)	-0.084** (0.034)
Constant	0.263*** (0.013)	0.488*** (0.012)
Observations	58,722	58,722
R^2	0.187	0.195
Adjusted R^2	0.187	0.195
Residual Std. Error (df = 58703)	0.448	0.417
F Statistic (df = 18; 58703)	751.215***	788.815***

Standard errors in parentheses. *, **, *** indicate significance at 90%, 95%, and 99%.

Table IX: Regression results from sample limited to individuals aged 30 to 49.

Regression Results: Exposed versus Non-Exposed Groups

	Dependent variable:	
	Uninsured	Medicaid
Female	-0.239*** (0.007)	0.152*** (0.008)
Married	0.019** (0.007)	0.038*** (0.009)
Non-White	-0.008 (0.007)	0.003 (0.007)
No English	0.238*** (0.008)	-0.148*** (0.011)
College	-0.196*** (0.010)	-0.110*** (0.013)
2018	-0.005 (0.008)	0.011 (0.009)
2019	0.010 (0.008)	0.007 (0.009)
Arkansas	-0.151*** (0.022)	0.142*** (0.023)
Arkansas*2018	0.067** (0.031)	-0.041 (0.032)
Arkansas*2019	0.097*** (0.031)	-0.088*** (0.032)
Constant	0.667*** (0.009)	0.152*** (0.011)
Observations	17,606	17,606
Adjusted R^2	0.091	0.048
F Statistic (df = 10; 17595)	177.473***	89.620***

Standard errors in parentheses. *, **, *** indicate significance at 90%, 95%, and 99%.

Table X: Regression results for sample limited to exposed and non-exposed groups. The exposed group is the policy pilot group in Arkansas, and the non-exposed group is the hypothetical policy pilot group from the control states.

Regression Results: Generalized Difference-in-differences

	Uninsured	Medicaid
Female	-0.103*** (0.002)	0.089*** (0.002)
Married	-0.004* (0.003)	0.048*** (0.003)
Non-White	0.008*** (0.002)	0.020*** (0.002)
No English	0.288*** (0.004)	-0.121*** (0.004)
College Graduate	-0.131*** (0.003)	-0.131*** (0.003)
Kentucky	-0.059*** (0.010)	0.104*** (0.010)
Louisiana	0.003 (0.010)	0.042*** (0.010)
Texas	0.225*** (0.009)	-0.238*** (0.009)
30 to 49	0.049*** (0.003)	0.157*** (0.003)
40 to 49	0.012*** (0.004)	0.176*** (0.004)
50 to 59	-0.027*** (0.003)	0.194*** (0.003)
60 to 64	-0.112*** (0.004)	0.209*** (0.004)
2018	-0.004 (0.003)	0.008** (0.003)
2019	0.003 (0.003)	0.001 (0.003)
Policy	0.226*** (0.006)	-0.153*** (0.006)
Premium	-0.048*** (0.005)	-0.039*** (0.005)
Arkansas*2018	0.021** (0.013)	0.006 (0.013)
Policy*2018	-0.001 (0.009)	0.008 (0.009)
Premium*2018	0.009 (0.007)	-0.010 (0.007)
Arkansas*Policy	-0.008 (0.026)	0.020 (0.026)
Arkansas*Premium	0.012 (0.018)	0.024 (0.018)
Policy*Premium	-0.124*** (0.014)	0.040*** (0.014)
Policy*2019	-0.007 (0.009)	0.015* (0.009)
Premium*2019	0.016 (0.007)	-0.006 (0.007)
Arkansas*2019	0.002 (0.013)	0.018 (0.013)
Arkansas*Policy*Premium	-0.001 (0.057)	-0.091 (0.057)
Policy*Premium*2018	-0.038 (0.020)	0.017 (0.020)
Arkansas*Policy*2018	0.065*** (0.037)	-0.078** (0.037)
Arkansas*Premium*2018	-0.020 (0.025)	0.004 (0.025)
Policy*Premium*2019	0.034 (0.020)	-0.025 (0.020)
Arkansas*Policy*2019	0.140*** (0.037)	-0.129*** (0.037)
Arkansas*Premium*2019	-0.0004 (0.025)	-0.050** (0.025)
Arkansas*Policy*Premium*2018	0.010 (0.085)	0.082 (0.085)
Arkansas*Policy*Premium*2019	-0.142 (0.080)	0.123 (0.080)
Constant	0.253*** (0.009)	0.288*** (0.009)
Observations	151,713	151,713
Adjusted R^2	0.165	0.166
F Statistic (df = 34; 151678)	880.241***	891.566***

Standard errors in parentheses. *, **, *** indicate significance at 90%, 95%, and 99%.

Table XI: Regression results for quadruple-differences model adding premium interaction.

Regression Results: Reference Year Comparison	2016-2019		2017-2019	
	Uninsured	Medicaid	Uninsured	Medicaid
Arkansas*Policy*2018	0.041 (0.034)	-0.028 (0.033)	0.073** (0.034)	-0.062* (0.033)
Arkansas*Policy*2019	0.076 (0.034)	-0.067** (0.033)	0.108*** (0.034)	-0.102*** (0.033)
Observations	152,876	152,876	151,713	151,713
Adjusted R^2	0.158	0.158	0.161	0.165
F Statistic	1,301.323*** (df = 22; 152853)	1,308.281*** (df = 22; 152853)	1,327.248*** (df = 22; 151690)	1,362.247*** (df = 22; 151690)

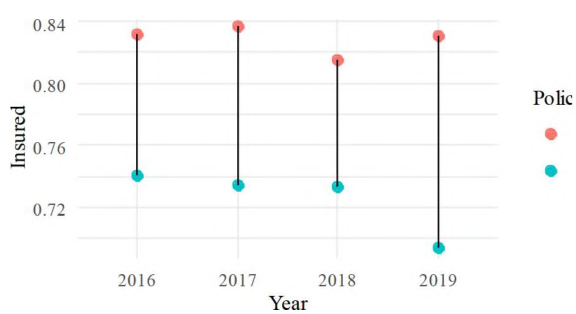
Standard errors in parentheses. *, **, *** indicate significance at 90%, 95%, and 99%.

Table XII: Triple-difference results for models comparing 2016 and 2017 as reference years.

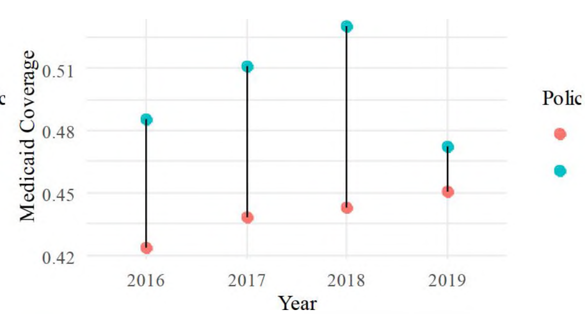
Regression Results: Private or Employer Insurance	
Arkansas*Policy*2018	0.008 (0.027)
Arkansas*Policy*2019	0.006 (0.027)
Observations	151,713
Adjusted R^2	0.099
F Statistic	758.217*** (df = 22; 151690)

Standard errors in parentheses. *, **, *** indicate significance at 90%, 95%, and 99%.

Table XIII: Triple-difference coefficients from model testing private or employer insurance for pilot group, showing insufficient evidence to claim a significant difference.

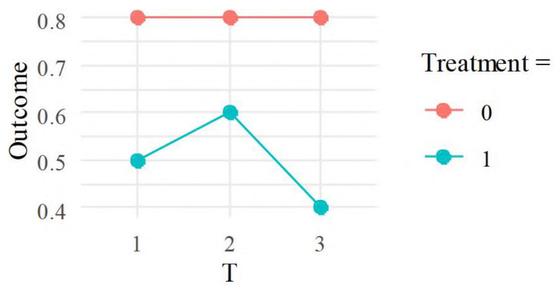


Panel A: Insured rate for low-income Arkansans aged 30 to 49.

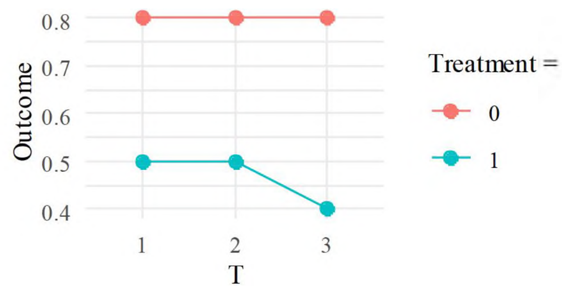


Panel B: Medicaid coverage for low-income Arkansans aged 30 to 49.

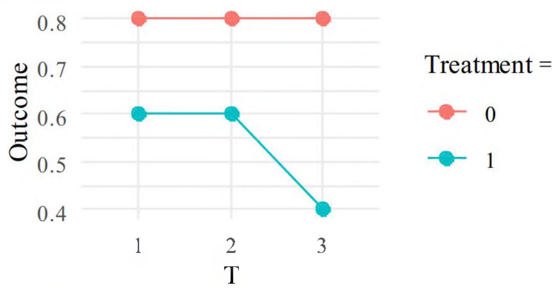
Figure 4: Recreates the plots from Figure 2 for low-income Arkansans aged 30 to 49.



Panel A: Sample proportions from synthetic dataset.



Panel B: Predictions from difference model using t=1 as reference year.



Panel C: Predictions from difference model using t=2 as reference year

	Outcome	
	1 to 3	2 to 3
t=3	0.000 (0.212)	0.000 (0.211)
Treatment	-0.300 (0.212)	-0.200 (0.211)
Treatment*t=3	-0.100 (0.300)	-0.200 (0.298)
Constant	0.800^{***} (0.150)	0.800^{***} (0.149)
Observations	40	40

Panel D: Difference-in-difference results.

Figure 5:

In this empirical exercise, I create a synthetic longitudinal dataset where T=3 and the expected outcome for the treatment group is greater at t=2 than t=1, holding the outcome for the control group constant across periods. There are 20 observations in each period, 10 treatment and 10 control. I specify simple difference-in-difference models exchanging t=1 and t=2 as the reference period, then use each model to predict the outcome for the entire dataset. In this example, the intercept is the prediction for the control group and takes the point estimate from the source data. Likewise, predictions for the treatment group take the form of the point estimates before and after treatment from the original dataset. Importantly, this exercise demonstrates empirically that difference-in-difference models are subject to bias and estimation error from using a non-representative reference period.

Variable:	Description:	IPUMS Variable Used:	Note:
Disabled	Disability status	DIFFCARE, DIFFEYE, DIFFMOB, DIFFPHYS, DIFFREM, DIFFSENS, VETSDISAB	Disabled = 1
Non-English Speaking	English or Non-English speaking	SPEAKENG	English = 0
Race	Individual is White or Non-White	RACEWHT	White = 0
Sex	Male or Female	SEX	Female = 1
Marital Status	Individual is married or unmarried	MARST	Married = 0
Student	Currently enrolled in school	SCHOOL	Student = 1
College Graduate	Graduated 4-year College or higher	EDUC	College = 1
Parent	Child living in home	NCHILD	Parent = 1
Medicaid	Individual received Medicaid coverage	HINSCAID	Medicaid = 1
Private Insurance	Individual received private insurance	HCOVPRIV	Private = 1
Any Insurance	Individual received any form of health insurance	HCOVANY	Insured = 1
Poverty	Household income as percentage of FPL	POVERTY	Poverty = 1
Policy[12]	Subject to 2018 work requirement	See: Footnote 11	Affected = 1

Table XIV: Variable descriptions. Disabled, Student, Parent, and Poverty are used to calculate the Policy variable. Year and state dummies are calculated using the ACS variables YEAR and STATEFIP.

[12] Able-bodied, childless, aged 30 to 49, not currently enrolled in school.