Coverage Effects of the ACA's Medicaid Expansion on Reproductive-Aged Women, Postpartum Mothers, and Mothers with Older Children

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Objectives: We estimate the effect of the Affordable Care Act's (ACA) Medicaid expansions on Medicaid coverage of reproductive-aged women at varying childbearing stages.

Methods: Using data from the American Community Survey (ACS) (n= 1,977,098) and a difference-in-differences model, we compare Medicaid coverage among low-income women without children, postpartum mothers, and mothers of children older than one year in expansion states to non-expansion states, before and after the expansions.

Results: The ACA's Medicaid expansion increased Medicaid coverage among women with incomes between 101-200% of the federal poverty line (FPL) without children by 10.7 percentage points (54 percent, $p<0.01$). Coverage of mothers with children older than one year increased by 9.5 percentage points (34 percent, $p<0.01$). Coverage of mothers with infants rose by 7.9 percentage points (21 percent, $p<0.01$).

Conclusions for Practice: Within the population of reproductive-aged women, we find a "fanning out" of effects from the ACA's Medicaid expansions. Childless women experience the largest gains in coverage while mothers of infants experience the smallest gains; mothers of children greater than one year old are in the middle. These results are consistent with ACA gains being the smallest among the groups least targeted by the ACA, but also show substantial gains (one fifth) even among postpartum mothers.

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Introduction

For women of reproductive age, health insurance can be vital for providing access to healthcare services benefitting both mothers and children. In addition to health insurance generally supporting better health for women – a noble and worthy goal itself – insurance coverage of women of reproductive age also has important implications for children's health. For example, access to medical care for pregnant women improves child health by increasing prenatal care, lowering the incidence of infant mortality, and improving birth outcomes (Currie & Gruber, 1996).

Health insurance coverage for nonpregnant women before (pre-conceptional period) and after pregnancy (interconceptional period) also has significant potential to improve the health of future children in a variety of ways (Johnson et al., 2006). First, insurance coverage can prevent health shocks, manage chronic diseases, and support overall preconception health which is associated with maternal and infant health outcomes (Stephenson et al., 2018). Second, access to contraceptives reduces unplanned pregnancies (Kearney & Levine, 2009), which can increase parental investments in children (Bailey, 2013). Finally, after childbirth, health insurance coverage can increase women's access to pregnancy-related healthcare, including physical recovery and postpartum mental health, which are also predictors of child health and well-being (Case & Paxson, 2002; Dietz et al., 2009).

Beginning in the 1980s, pregnant women with incomes less than 133 percent FPL were categorically eligible for Medicaid. Since then, many states have expanded the income threshold, with some exceeding 200 percent FPL. As a result, Medicaid coverage during pregnancy is relatively high. But Medicaid pregnancy coverage is temporary, often limited to 60 days following childbirth. Many mothers then become uninsured after their pregnancy-related Medicaid is terminated. For example, between 2005 and 2013, more

than half of women who were covered by Medicaid at the time of delivery became uninsured during the next six months (Daw et al., 2017). Health insurance coverage before and between pregnancy may be even more important for low-income women, who are more likely to experience health problems regardless of pregnancy status.

The ACA's Medicaid expansions, which increased Medicaid eligibility to low-income adults (under 138% FPL), have increased insurance coverage for low-income women (Courtemanche et al., 2017; Johnston et al., 2018; Simon et al., 2017; Wehby & Lyu, 2018). Though these increases have been driven by women without dependent children (Johnston et al., 2018; Simon et al., 2017), parents also experienced increased coverage (McMorrow et al., 2017).

Previous research has shown that the ACA broadly (Daw & Sommers, 2019) and Medicaid expansions specifically (Johnston et al., 2018) have reduced uninsurance among women of reproductive age. Descriptive analyses also suggest that uninsurance among new mothers (McMorrow & Kenney, 2018) and insurance disruptions (i.e. churn) between preconception and postpartum (Daw et al., 2019) are both lower in expansion states than nonexpansion states. However, no study to date has examined whether the ACA Medicaid expansions had different impacts on Medicaid coverage across reproductive-aged women and mothers of varying childbearing statuses. Primarily due to the categorical eligibility of pregnant women and postpartum mothers up to 60 days, we expect there are differences even *within* the population of reproductive-aged women.

Our research builds upon this prior research and makes several important contributions. First, like Daw and Sommers (2019) and Johnston et al. (2018) we study all reproductive-aged women. Second, as in Johnston et al. (2018) McMorrow and Kenney (2018) and Daw et al. (2019) we examine Medicaid expansions specifically. We extend McMorrow and Kenney (2018) and Daw et al. (2019) by rigorously analyzing the causal

impact of the expansions. Further, we also extend Johnston et al. (2018) by estimating the effects on Medicaid coverage specifically (rather than health insurance coverage) and by examining variation in the effects of Medicaid expansions within the population of mothers by time of last pregnancy. Specifically, we use nationally representative data to estimate the effect of ACA's Medicaid expansions on Medicaid coverage of low-income reproductive-aged women, and whether there are different effects for women without children, women who have given birth in the past year, and women who have a child older than one year.

Methods

Using a nationally representative sample, we compare Medicaid coverage among reproductive-aged women in Medicaid expansion states to non-expansion states, before and after the expansions. We employ a difference-in-differences (DD) model where expansion states are the treatment group and nonexpansion states serve as the control group. Human participant protection was not required for this study because no human participants were involved.

Data

We use data from the American Community Survey (ACS), 2008-2017. The ACS consists of repeated cross-sections of about 3 million individuals each year. It is the largest household survey in the U.S., including about 1 percent of the entire U.S. population. This survey collects information on income, family characteristics, and socioeconomic and demographic data. All 50 states and Washington, D.C. are included in our analysis. We limit the sample to women of reproductive age (18-44) with incomes less than 200% of the federal poverty line (FPL).

The outcome of interest is Medicaid coverage, a binary variable indicating that the respondent was covered by Medicaid. We define Medicaid expansion as states that expanded as of June 2015 (expansion states are listed in Appendix A). Nearly all states that have expanded their Medicaid program expanded in January 2014. We follow Simon et al. (2017) in identifying states that expanded after 2014 as expansion states only for the years in which their expansion was effective.

Some states expanded their programs before 2014. Most of these expansions were limited in some way. We follow previous literature by using a single indicator variable to measure Medicaid expansion in 2014. Nonetheless, sensitivity checks where we drop early expansion states confirm our main results.

One of the greatest advantages of the ACS is its large sample size, which allows us to estimate the effects of the ACA Medicaid expansions separately across women of reproductive age. We first separately estimate the impacts of the expansions on women without any children. This analysis adds to the literature on how the ACA affects low-income childless adults. Next, we separate mothers into new mothers with infants (hereafter referred to as postpartum mothers) and mothers without infants. Mothers with infants are those who have given birth within the past year. Mothers without infants are those who report having a child older than one year old and did not report having a child within the past year.

Additional measures from the ACS include race/ethnicity, age, marital status, and education level. Race/ethnicity is measured as three binary variables: non-Hispanic white, non-Hispanic black, and Hispanic. Age is categorized into four bins: (reference group=18-22; 23-27, 28-35, 36-44). Marital status consists of three binary variables: married, never married, and divorced. Education level is measured as three binary variables: high school graduate, some college, and bachelor's degree or more. In addition to these individual-

level measures, we also adjust for state level unemployment rates from the Bureau of Labor Statistics and state-level poverty rates from the Census Bureau which may be associated with both whether a state expanded its Medicaid program and health insurance coverage of women. Our results are not sensitive to the inclusion of these state-level characteristics.

Statistical Analysis

We implement the following difference-in-differences (DD) model:

$$Y_{ist} = \beta_0 + \beta_1 Expansion_{st} * Post_t + \gamma_t + \delta_s + \lambda' X_{ist} + \eta Z_{st} + \varepsilon_{ist}$$

Where Y is a binary variable measuring Medicaid coverage for individual i in state s during year t. Expansion is a binary variable equal to 1 if individual i lives in state s that expanded Medicaid during time t. Post equals 1 if time t is 2014 or later. The variable of interest, *Expansion*Post* is an interaction between these two binary variables. The parameter of interest β_1, represents the effect of Medicaid expansion on Medicaid coverage of women. State fixed effects, δ_s, adjust for time-invariant differences across states. Year fixed effects, γ_t, adjust for temporal changes in health insurance coverage that occur nationwide. X is a vector of individual-level covariates: race/ethnicity, age, marital status, and education level. Z includes state-level unemployment and poverty rates, both of which may affect health insurance coverage of reproductive-aged women. Regressions are weighted by sampling weights provided in the ACS, and robust standard errors are clustered at the state-level.

Subgroup Analysis

We estimate this model separately for low-income women aged 18-44 who do not have children, who had a child more than one year ago, and who had a child within the past year. We expect that women who do not have children will experience the largest impact of the ACA Medicaid expansions because Medicaid rules prior to the ACA did not

afford many options for them to seek coverage. Very low-income women who had a child more than one year ago may be eligible for Medicaid pre-ACA if they live in a state where parents are eligible at higher income thresholds. Low-income women who had a child within the past year should have been categorically eligible for at least some portion of the year (usually two months postpartum). Therefore, we expect they will experience the smallest effects from the ACA Medicaid expansions.

We also estimate the model separately for women with incomes less than 100% FPL and for women with incomes between 101 and 200% FPL. We expect that women with incomes between 101 and 200% FPL will be more strongly impacted by the Medicaid expansions due to the expansion to 138% FPL and that pre-ACA eligibility was more common among the lowest income group.

Sensitivity Analysis

We examine the sensitivity of our results to several modifications. First, our primary models estimate an ordinary least squares (OLS) model through a linear probability model (LPM). In sensitivity analyses, we also estimate a probit model. Second, the presence of states that expanded their Medicaid programs before 2014 may make the coverage gains appear smaller (downward bias) because these states had already increased access to public health insurance coverage earlier. In another robustness check, we omit the states that expanded Medicaid early (California, Washington, D.C., Connecticut, Minnesota, Massachusetts, and New York).

Results

Descriptive statistics of the sample are reported in Table 1, separated by childbearing status and time period relative to expansion. Women in expansion states – regardless of childbearing status – are less likely to be non-Hispanic black and more likely

to be Hispanic. Childless women in expansion states are also more highly educated. Otherwise, the demographic characteristics of women in expansion states and nonexpansion states are relatively similar across childbearing status.

Before presenting the main results, Figure 1 presents trends in Medicaid coverage among women of reproductive age by expansion and non-expansion states. Medicaid coverage is lowest among childless women and highest among postpartum mothers with children under age 1. Medicaid coverage is also higher in expansion states than non-expansion states throughout the study period. Medicaid coverage increases in 2014 among women in expansion states across all three groups of women, while women in non-expansion states do not experience the same increases in coverage. Relative to the baseline coverage rates, this figure suggests the ACA Medicaid expansions had differential impacts across women of varying childbearing stages.

Table 2 presents the main results, which adjust for individual-level covariates, state-level factors, and state and year fixed effects. Panel A shows the effects for women with incomes less than 100% FPL and Panel B displays the effects for women with incomes between 101 and 200% FPL. Regardless of childbearing status, all low-income women experience increases in Medicaid coverage as a result of the ACA Medicaid expansions. These results are all statistically significantly different from zero ($p<0.01$). As expected, childless women experience the largest increases. For example, very low-income childless women increase their Medicaid coverage by 8.0 percentage points. Relative to the baseline mean coverage in expansion states before expansion of 22.3 percent, this increase represents about a 36 percent increase. Childless women with incomes between 101 and 200 percent FPL (Panel B) see even larger effects: 10.7 percentage points higher coverage, which represents about a 54 percent gain in Medicaid coverage.

Columns 2 and 3 separate mothers into mothers of children older than one and postpartum mothers with infants. Overall, mothers of older children experience larger increases in Medicaid coverage relative to postpartum mothers, and this difference is consistent across the two income groups. Specifically, very low-income mothers with older children (Panel A) – who would not have been categorically eligible for Medicaid in the past year – increased their Medicaid coverage by 6.8 percentage points, or 12.3 percent. Postpartum mothers of infants – who would have been eligible for pregnancy and/or postpartum coverage for part of the year – experience smaller increases of 4.4 percentage points, or about 7 percent.

Moving to Panel B, the ACA Medicaid expansions had larger effects on women with incomes between 101 and 200% FPL than women with incomes less than 100% FPL. Since pre-ACA eligibility was more likely among the lowest income women, this finding is not surprising. In particular, Medicaid coverage among mothers of older children in this income group rose by 9.5 percentage points, or roughly 34 percent. Postpartum mothers in this income group increased their Medicaid coverage by 7.9 percentage points (21 percent).

These results are not sensitive to model specification. In Appendix B, we report marginal effects from a probit model, and find the magnitudes are similar to the main results. For example, results remain largest among childless women with incomes between 101 and 200% FPL and smallest among mothers with infants. Probit models estimate an increase in Medicaid coverage among childless women of between 26-33 percent relative to 36-54 percent increase estimated in the OLS model. According to the probit models, Medicaid coverage among postpartum mothers rose between 14 and 19 percent compared to OLS estimates of 7 to 21 percent. Mothers with older children increased coverage between 19 and 23 percent (probit) versus 12 and 34 percent (OLS).

As another sensitivity check, we perform the analysis excluding states that expanded their Medicaid programs early. Appendix C reports that the magnitude of the coefficients is similar to the main results. These results suggest that early expansion states are not biasing the main estimates downward.

Discussion

In this study using nationally representative data on Medicaid coverage among reproductive-aged women at varying childbearing stages, we find significant increases in Medicaid coverage as a result of the ACA Medicaid expansions. Importantly, these results show that there is variation in the impacts of the ACA Medicaid expansions by childbearing status among the population of women of reproductive age, and even among the population of low-income mothers. Specifically, childless women experience the largest gains in coverage while postpartum mothers experience the smallest gains; mothers of children greater than one year old are in the middle.

This "fanning out" of effects from childless women to mothers giving birth within the past year is consistent with what we would expect. Since childless women were generally not eligible for public health insurance pre-ACA, they were expected to display the largest effects. Some parents were eligible for Medicaid pre-ACA, though variation in eligibility is largely state-specific. Postpartum women would be expected to benefit the least from the ACA expansions, as they had more consistent eligibility before the ACA expansions. Nonetheless, postpartum mothers still experienced large increases in Medicaid coverage.

Increased health insurance coverage during the pre-conceptional and interconceptional periods for low-income women may have implications for maternal and child health outcomes. For example, increased access to family planning services and

regular access to preconception healthcare are predictors of timely prenatal care (Wally et al., 2018) which is associated with improved infant health (CDC, 2000) In the postpartum period, access to care for the diagnosis of both physical and mental health conditions in the postpartum period may also improve both maternal and child health outcomes. For mothers, access to postpartum are may be vitally important for maternal mortality, particularly when the maternal mortality rate in the U.S. is rising and is higher than any other developed country (Report from Nine Maternal Mortality Review Committees, 2018). Although coverage from pregnancy-related Medicaid typically lasts up to 60 days postpartum, a recent report from maternal mortality review boards found that 20 percent of pregnancy-related deaths occurred after 43 days postpartum (Report from Nine Maternal Mortality Review Committees, 2018) suggesting that extending coverage beyond two months postpartum could potentially save the lives of some new mothers.

The primary limitation of this study is the 4-year post-expansion period we examine. Particularly in light of recent increases in uninsurance rates (Sommers et al., 2018) the trends we detect may not continue on their implied trajectory. Indeed, this trend can be seen in Figure 1 where Medicaid coverage begins to flatten or even drop in 2017. A second limitation is that the ACS is self-reported data. Standard issues with self-reporting such as recall bias, social desirability bias, or reporting Medicaid coverage incorrectly are present. Finally, our results are plausibly causal effects only to the extent that trends in reproductive-aged women's Medicaid coverage did not influence the decision to expand Medicaid. The decision to expand Medicaid was largely a political one (Jacobs & Callaghan, 2013), and is therefore unlikely to be a response to women's health insurance coverage.

Although previous research has found that the ACA's Medicaid expansions improved health insurance coverage among reproductive-aged women (Johnston et al., 2018) our results show that even within this population there is variation in impacts based on childbearing status and time since childbirth. Specifically, postpartum mothers (who are typically eligible for two months of postpartum care even pre-ACA) were affected less by the expansions than mothers of children older than one year old. By expanding Medicaid to low-income adults, the ACA's Medicaid expansions may have also reduced insurance churn among reproductive-aged women during preconception periods, which is associated with disruptions in physician care, greater emergency department use, and worse health outcomes (Sommers et al., 2016)

The findings of this study have implications beyond the ACA. Expanding Medicaid programs to cover nonpregnant women during pre-conceptional and interconceptional periods can be a powerful tool for improving health insurance coverage among reproductive-aged women. Indeed, legislation extending postpartum coverage has been proposed at the federal level. The Mothers and Offspring Mortality and Morbidity Awareness (MOMMA) Act and the Maximizing Outcomes for Moms through Medicaid Improvement and Enhancement of Services (MOMMIES) Act would both extend Medicaid coverage for pregnant women from its current 60 days to one year. Though these bills are promising for reducing postpartum uninsurance, our results suggest there is demand for health insurance coverage among women beyond the perinatal period that could be important for maternal and child health. While postpartum expansions may be a helpful first step in enhancing surveillance for postpartum complications and access to care for pregnancy-related illnesses, broader expansions that do not rely on categorical pregnancy eligibility, such as the ACA's Medicaid expansions, are likely more impactful for increasing continuous insurance coverage among reproductive-aged women to

preemptively enhance and optimize women's health (in advance of and between pregnancies). Primary prevention is likely the best strategy for combatting infant and maternal mortality and morbidity.

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Figures and Tables

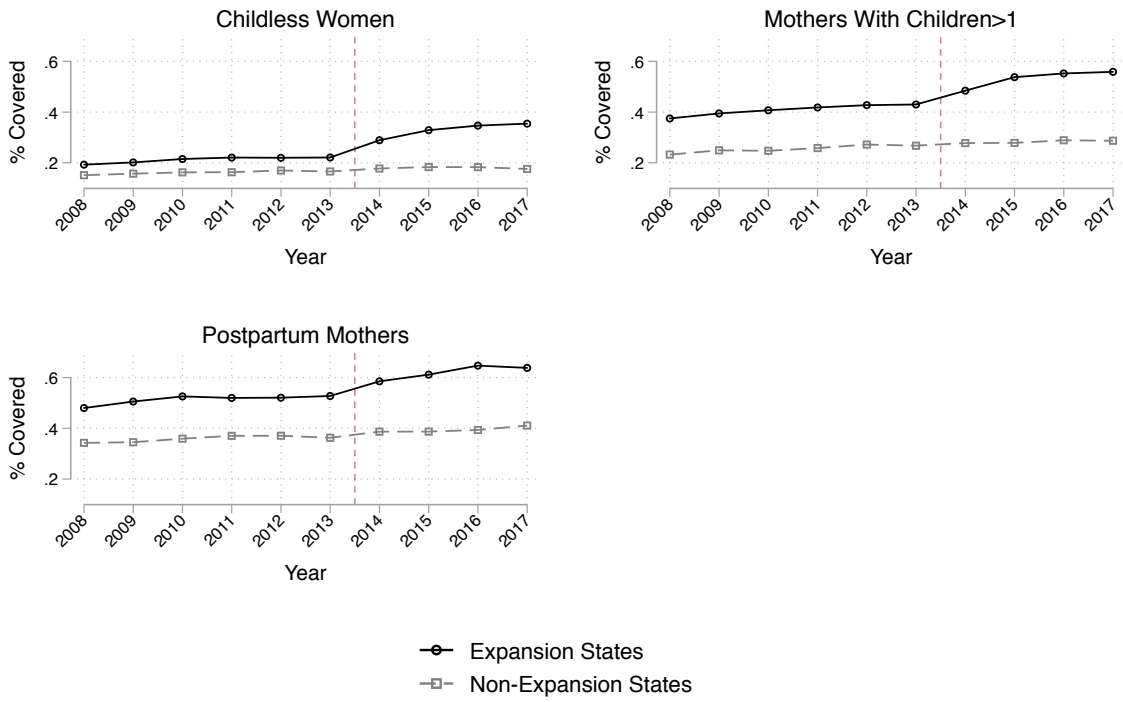

Figure 1. Medicaid Coverage Among Women of Reproductive Age (18-44) <=200 FPL

Source: American Community Survey, 2008-2017.

Table 1. Descriptive Statistics of Women of Reproductive Age (18-44) <200 FPL

	Pre-2014					
	Childless Women		Mothers with Children >1		Postpartum Mothers	
	Expansion	Non-Expansion	Expansion	Non-Expansion	Expansion	Non-Expansion
Covered by Medicaid	0.213	0.162	0.410	0.255	0.513	0.358
Non-Hispanic White	0.655	0.664	0.614	0.624	0.604	0.622
Non-Hispanic Black	0.133	0.226	0.158	0.260	0.159	0.252
Hispanic	0.217	0.159	0.355	0.252	0.351	0.262
Age 18-22	0.500	0.505	0.056	0.061	0.248	0.283
Age 23-27	0.220	0.210	0.155	0.167	0.304	0.319
Age 28-35	0.150	0.144	0.369	0.373	0.333	0.304
Age 36-44	0.130	0.141	0.421	0.399	0.114	0.094
Married	0.087	0.098	0.432	0.424	0.433	0.429
Never Married	0.836	0.801	0.352	0.327	0.476	0.467
Divorced	0.053	0.069	0.138	0.154	0.055	0.058
High School Graduate	0.371	0.398	0.419	0.436	0.441	0.448
Some College	0.358	0.346	0.267	0.276	0.242	0.247
Bachelor's +	0.146	0.119	0.083	0.081	0.083	0.081
Unemployment Rate (State)	8.651	7.803	8.757	7.831	8.689	7.756
Poverty Rate (State)	14.190	15.321	14.363	15.594	14.271	15.481
No. of Observations	300,979	250,575	272,429	259,063	50,789	48,302

	Post-2014					
	Childless Women		Mothers with Children >1		Postpartum Mothers	
	Expansion	Non-Expansion	Expansion	Non-Expansion	Expansion	Non-Expansion
Covered by Medicaid	0.331	0.180	0.534	0.283	0.621	0.394
Non-Hispanic White	0.639	0.646	0.601	0.618	0.600	0.618

Non-Hispanic Black	0.135	0.239	0.164	0.265	0.170	0.259
Hispanic	0.223	0.188	0.350	0.292	0.323	0.280
Age 18-22	0.481	0.475	0.043	0.047	0.187	0.218
Age 23-27	0.236	0.230	0.149	0.154	0.307	0.317
Age 28-35	0.163	0.161	0.378	0.381	0.377	0.351
Age 36-44	0.120	0.133	0.430	0.418	0.130	0.115
Married	0.080	0.096	0.413	0.413	0.429	0.424
Never Married	0.854	0.815	0.391	0.358	0.486	0.474
Divorced	0.047	0.059	0.127	0.142	0.052	0.061
High School Graduate	0.382	0.403	0.423	0.421	0.450	0.455
Some College	0.358	0.350	0.280	0.292	0.262	0.265
Bachelor's +	0.159	0.129	0.096	0.097	0.107	0.102
Unemployment Rate (State)	5.338	5.057	5.398	5.087	5.360	5.025
Poverty Rate (State)	12.872	14.467	13.057	14.632	12.982	14.481
No. of Observations	248,698	163,778	180,642	142,578	33,226	26,039

Source: American Community Survey 2008-2017. Sample is restricted to reproductive-aged women (18-44).

Table 2. Effect of Medicaid Expansion on Medicaid Coverage of Women of Reproductive Age

	Medicaid Coverage Among Women of Reproductive Age (18-44)		
	Childless Women	Mothers with Children >1	Postpartum Mothers
Panel A: Women with Incomes <100 FPL			
Expansion*Post	0.080**	0.068**	0.044**
	(0.010)	(0.014)	(0.015)
Mean Y in Expansion States Pre-2014	0.223	0.551	0.622
Relative % Change	35.9%	12.3%	7.1%
N	611619	394604	86463
Panel B: Women With Incomes 101-200 FPL			
Expansion*Post	0.107**	0.095**	0.079**
	(0.011)	(0.014)	(0.017)
Mean Y in Expansion States Pre-2014	0.197	0.281	0.374
Relative % Change	54.2%	33.8%	21.1%
N	352411	460108	71893

Source: American Community Survey 2008-2017. Sample is restricted to reproductive-aged women (18-44).
Notes: Regressions adjust for race/ethnicity, age, marital status, education, state unemployment rate, state poverty rate, state fixed effects, and year fixed effects. Regressions weighted by person weights. Robust SEs clustered at the state level. *p<0.05, **p<0.01

Appendix A. Medicaid Expansion States

	Expansion States	Non-expansion States
1	Alaska	Alabama
2	Arizona	Florida
3	Arkansas	Georgia
4	California	Idaho
5	Colorado	Kansas
6	Connecticut	Maine
7	Delaware	Mississippi
8	District of Columbia	Missouri
9	Hawaii	Nebraska
10	Illinois	North Carolina
11	Indiana	Oklahoma
12	Iowa	South Carolina
13	Kentucky	South Dakota
14	Louisiana	Tennessee
15	Maryland	Texas
16	Massachusetts	Utah
17	Michigan	Virginia
18	Minnesota	Wyoming
19	Montana	
20	Nevada	
21	New Hampshire	
22	New Jersey	
23	New Mexico	
24	New York	
25	North Dakota	
26	Ohio	
27	Oregon	
28	Pennsylvania	
29	Rhode Island	
30	Vermont	
31	Washington	
32	West Virginia	
33	Wisconsin	

Notes: We follow Simon et al. (2017) in categorizing expansion and non-expansion states. In particular, the Medicaid expansion became effective in January 2014 for all expansion states except for Alaska (September 2015), Indiana (February 2015), Louisiana (July 2016), Michigan (April 2014), Montana (January 2016), New Hampshire (August 2014), and Pennsylvania (January 2015). States that expanded after January 2014 are only classified as expansion states in the years after the expansion was implemented in that state. Although Wisconsin did not technically expand its Medicaid program under the ACA, it covers adults up to 100% FPL. Other states have since adopted expansions, however their effective dates are beyond the time period in this study: Idaho (2019), Maine (2019), Nebraska (2019), Utah (2019), and Virginia (2019).

Appendix B. Effect of Medicaid Expansion on Medicaid Coverage of Women of Reproductive Age, Probit Estimates

	Medicaid Coverage Among Women of Reproductive Age (18-44)		
	Childless Women	Mothers with Children >1	Postpartum Mothers
Panel A: Women with Incomes <100 FPL			
Expansion*Post	0.261**	0.187**	0.138**
	(0.036)	(0.036)	(0.041)
Mean Y in Expansion States Pre-2014	0.223	0.551	0.622
N	611619	394604	86463
Panel B: Women With Incomes 101-200 FPL			
Expansion*Post	0.329**	0.229**	0.193**
	(0.039)	(0.045)	(0.046)
Mean Y in Expansion States Pre-2014	0.197	0.281	0.374
N	352411	460108	71893

Source: American Community Survey 2008-2017. Sample is restricted to reproductive-aged women (18-44). **Notes:** Regressions adjust for race/ethnicity, age, marital status, education, state unemployment rate, state poverty rate, state fixed effects, and year fixed effects. Estimates are marginal effects. Regressions weighted by person weights. Robust SEs clustered at the state level. *p<0.05, **p<0.01

Appendix C. Effect of Medicaid Expansion on Medicaid Coverage of Women of Reproductive Age, Excluding Early Expansion States

	Medicaid Coverage Among Women of Reproductive Age (18-44)		
	Childless Women	Mothers with Children >1	Postpartum Mothers
Panel A: Women with Incomes <100 FPL			
Expansion*Post	0.083**	0.080**	0.048*
	(0.012)	(0.019)	(0.020)
Mean Y in Expansion States Pre-2014	0.204	0.546	0.615
Relative % Change	40.6%	14.7%	7.8%
N	435228	295056	64708
Panel B: Women With Incomes 101-200 FPL			
Expansion*Post	0.093**	0.090**	0.067**
	(0.011)	(0.019)	(0.018)
Mean Y in Expansion States Pre-2014	0.173	0.262	0.358
Relative % Change	53.7%	34.3%	18.7%
N	250074	345046	53695

Source: American Community Survey 2008-2017. Sample is restricted to reproductive-aged women (18-44), and drops early expansion states (CA, CT, DC, MA, MN, NJ, NY, WA) **Notes:** Regressions adjust for race/ethnicity, age, marital status, education, state unemployment rate, state poverty rate, state fixed effects, and year fixed effects. Regressions weighted by person weights. Robust SEs clustered at the state level. *p<0.05, **p<0.01