

*Accessing the Safety Net: How Medicaid Affects Health and Recidivism**

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Abstract

We estimate the causal impact of access to means-tested public health insurance coverage (Medicaid) on health outcomes and recidivism for those recently released from incarceration. To do so, we leverage a policy change in South Carolina that allowed for Medicaid re-enrollment for previously incarcerated individuals. Using linked administrative data on criminal convictions and health insurance claims, we find that when ex-offenders experience an increase in access to Medicaid, utilization of health care services increases, compared to other ex-offenders that were ineligible for automatic re-enrollment. However, we do not find that this increased access to Medicaid reduces 1-year or 3-year recidivism or recidivism for violent crimes, suggesting that effectiveness of such policies is context dependent.

JEL Classification: I38, I18, K42

Keywords: Medicaid, health care utilization, recidivism

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I. INTRODUCTION

The U.S. has one of the highest recidivism rates in the world. Nearly half of those returning to the community are rearrested within one year, and 77 percent are rearrested within five years. Moreover, a large proportion of inmates have high rates of chronic medical conditions like diabetes and hypertension, as well as severe mental health disorders, and substance use issues, which can lead to a higher likelihood of recidivism (Bronson and Berzofsky, 2017). Despite the need for timely and continuous access to care, many offenders do not receive necessary medical treatment while incarcerated or upon release and return to prison with existing behavioral health issues (Mallik-Kane and Visser, 2008; Wilper, Woolhandler, Boyd, Lasser, Mc-Cormick, Bor, and Himmelstein, 2009).

These statistics suggest that there is scope for public health care services to assist inmates upon reentry into society in a number of ways. Indeed, a number of recent studies show that Affordable Care Act-facilitated expansions in state-level funding for means-tested public health insurance (Medicaid) lead to reductions in recidivism, especially for violent crimes (Aslim, Mungan, Navarro, and Yu, 2019; Badaracco, Burns, and Dague, 2021; Burns and Dague, 2023; Wen, Hockenberry, and Cummings, 2017; Vogler, 2020).¹ Alternatively, new evidence shows that when men *lose* Medicaid coverage at age 19, the probability of re-offending within one year increases substantially (Jácome, 2023). And although such reduced-form studies are unable to directly measure the mediating effects of health-seeking behavior on crime, these findings suggest a clear channel where access to care leads to a reduction in criminal behavior due to take-up of health services.

In this paper, we use administrative, individual-level data to build on a growing literature on Medicaid access and recidivism by addressing three largely unanswered questions: (i) Do policies that reduce barriers to Medicaid access for recently released inmates affect health care utilization?;

¹Specifically, Aslim, Mungan, Navarro, and Yu (2019) finds that Medicaid expansion led to a 31–40 percent reduction in recidivism for violent crimes among multi-time reoffenders. Badaracco, Burns, and Dague (2021) estimates that the Affordable Care Act led to a 2.3 percentage point decrease in the likelihood of reincarceration with the corresponding increase in employment and wages. Burns and Dague (2023) study policies in Wisconsin and Indiana that increased Medicaid enrollment by up to 60 percent. Estimate indicate that Medicaid coverage upon release led to a 16 percent reduction in re-offending and increases employment by 25 percent.

(ii) Do such policies affect recidivism?; and (iii) Can changing health care utilization serve as a direct link to reducing recidivism? To answer these questions, we focus on a state that implemented a 2016 policy to suspend, rather than automatically terminate, Medicaid coverage at incarceration—South Carolina. Ex-offenders released after the policy implementation could be easily re-enrolled, reducing application hurdles and lapses in coverage due to waiting times.

To test whether the Medicaid suspension policy affected health and crime outcomes for those recently released, we use a regression discontinuity (RD) approach to compare ex-offenders released after the June 30, 2016 policy implementation date to those released just prior. We first use linked data on health care claims and Medicaid enrollment for individuals with interactions in the South Carolina criminal justice system to estimate whether this Medicaid suspend policy affects Medicaid enrollment, health care utilization, and health outcomes shortly after release. We then test whether increased Medicaid access affects the probability of re-offending within 1 to 3 years. We find that automatic re-eligibility led to a 11.1 percentage point, or 58 percent, increase in the probability of an ex-offender being enrolled in Medicaid within six months upon release. This increase in Medicaid enrollment is mirrored by an increase in health care services, but is not driven by any particular service, including inpatient care, outpatient care, or prescriptions take-up.

Despite finding consistent changes in Medicaid utilization, we do not find that individuals released after July 2016 are less likely to re-offend within 1 and 3 years after release as compared to those released earlier. This effect holds even when analyzing effects by future crime type, like property crimes and violent crimes. While this effect runs counter to evidence from other states, we note that this null result may be driven by the fact that South Carolina, unlike other states that implemented similar policies, did not strongly advertise the new policy, nor were inmates counseled about Medicaid services or re-enrollment. Therefore, individuals most at risk for re-offending may still have experienced lapses in coverage or been uninformed about the possibility of re-obtaining insurance.

Lastly, we show that these effects are not driven by changes in sentencing or composition of convicted offenders at the policy change cutoff. Individuals released just prior to and after the Med-

icaid suspend policy implementation are, on average, similar both on demographic characteristics like age and race, and on characteristics related to the types of crimes committed. We also show that the policy change did not affect the number of convictions, sentence length, or release dates around this cutoff, yielding as-good-as-random variation in the population eligible for continued Medicaid coverage.

Given the potential benefits of Medicaid and the consequences of even a short interruption in coverage, many states have begun implementing Medicaid suspension laws for both those in jail and those in prison; one study has shown that such policies have been successful in reducing recidivism rates at the state level ([Gollu and Zapryanova, 2022](#)). We note that in this study we focus on the context of South Carolina for three main reasons. First, South Carolina implemented a Medicaid suspension policy in 2016, but did little to inform inmates of the change or counsel eligible individuals. This setting allows us to better measure the direct effects of access to Medicaid in the presence of transactions costs and information barriers, which many other individuals in poverty also face. Second, South Carolina provides a compelling testing ground for studying both crime and Medicaid utilization. South Carolina is ranked first in recidivism rates in the U.S. and has undergone a number of criminal justice reforms, including a major reform in 2010, in an effort to reduce its incarcerated population. Consequently, our findings have important implications for policymakers looking for low-cost ways to reduce offending. Third, South Carolina is a non-expansion state with many restrictions for Medicaid access for able-bodied childless adults. Therefore, our findings shed new light on how a targeted public health insurance policy can affect a vulnerable population facing hurdles to participating in social services.

Our findings also provide new insight on the extent to which allowing eligible individuals immediate access to health care upon reentry into the labor market affects their health and well-being and contributes to economic productivity more generally. Accordingly, our findings build on existing work showing that health insurance coverage can help individuals treat and manage existing health conditions, especially mental health conditions ([Wakeman, McKinney, and Rich, 2009](#); [Rosen, Dumont, Cislo, Brockmann, Traver, and Rich, 2014](#); [Howard, Solan, Neptune, Mellgren,](#)

Dubenitz, and Avery, 2016; Aslim, Mungan, Navarro, and Yu, 2019; Cuddeback, Morrissey, and Domino, 2016). Although previous research has typically focused on health coverage and outcomes due to expansions in Medicaid coverage for a large set of individuals in the 1980s and 1990s, our results speak to the current application hurdles that exist for low-income, eligible populations. This is especially important for addressing how policy can address gaps in coverage, as more than 19 percent of Medicaid-eligible adults choose not to participate (Sommers, Kronick, Finegold, Po, Schwartz, and Glied, 2012).

We note that one limitation to these data is that we are unable to speak to effects of health coverage while in prison. However, the notion that health care can change risky behavior is also supported by recent work showing that providing health services in prisons improves mortality rates for offenders and reduce recidivism, especially those suffering from mental illness (Hjalmarsson and Lindquist, 2020), suggesting that one additional channel to further reduce recidivism and improve social welfare would be to also improve continuity of care during incarceration.

II. SOUTH CAROLINA’S 2016 MEDICAID SUSPENSION POLICY

Medicaid is a federally funded program providing comprehensive coverage of health care and long-term services to more than 90 million low-income people in the U.S. Decisions regarding eligibility and spending, however, remain at the state level. In South Carolina, to be eligible for Medicaid, one must be either a U.S. citizen or a legally residing non-citizen. Additionally, parents/caretakers with dependent children are eligible, if their household incomes do not exceed 100% of the Federal Poverty Line (FPL). Pregnant women with household incomes up to 199% of the FPL are also eligible. Able-bodied adults without dependents are not eligible.

Medicaid participation in South Carolina is approximately 20 percent, slightly lower than the U.S. average of 21.1 percent (Kaiser Family Foundation, 2023). These rates are even lower among the previously incarcerated population; while 53 percent of such individuals are eligible for Medicaid prior to incarceration, only 22 percent of ex-offenders enroll in Medicaid after release (Soura, Alexander, Baker, Fate, Hutto, James E. Smith, Stirling, and Harry H. Stokes, 2017). There

are many reasons why those with interactions in the criminal justice system may be less likely to take-up Medicaid. For one, South Carolina Medicaid applications maintain strict requirements, including requiring an address and attending an in-person interview, which may impose additional hardships for those recently released from prison. Moreover, incarcerated parents, in particular, may surrender or be stripped of their parental responsibilities at some point during their time served, rendering them ineligible. For those staying in households with friends or family upon release, the household income levels may be too high to allow for eligibility.

On June 30, 2016, in an effort to increase Medicaid utilization among recently released inmates, the state of South Carolina adopted a new practice of allowing eligible individuals to continue coverage without reapplying after release for any inmate serving time for less than two years. The policy change in 2016 followed a push from an interagency South Carolina initiative known as TeamWork. The TeamWork committee included 8 members, including a state senator and two state representatives.² The stated goals of TeamWork include promoting health, equity, and sustainability by seeking to reduce health disparities between inmates and the general population. TeamWork also sought to connect ex-offenders to a stable source of health care after release.

Critically, the 2016 policy changed the landscape of Medicaid enrollment for inmates. For example, although the Department of Corrections employed a Medicaid eligibility worker to handle cases for inmates upon release, due to time and budgetary constraints, inmates were previously only sent to inpatient treatment settings but without Medicaid coverage. TeamWork created a new team of workers to handle Medicaid re-enrollment for individuals recently released (Soura, Alexander, Baker, Fate, Hutto, James E. Smith, Stirling, and Harry H. Stokes, 2017). However, we note that the TeamWork team also reported having difficulties converting eligibility of inmates into enrollment, which may also have led to a lower take-up of Medicaid services than originally expected (Soura, Alexander, Baker, Fate, Hutto, James E. Smith, Stirling, and Harry H. Stokes, 2017). Due to a backlog of cases and limited staff, the South Carolina Department of Corrections in 2016 could review only about 90 cases per month, although 500 inmates are released per month (Soura,

²The TeamWork members were Christian L. Soura, Thomas C. Alexander, Joshua Baker, Lefford Fate, Elizabeth Hutto, James E. Smith, Jr., Bryan P. Stirling, and Harry H. Stokes, Jr.

Alexander, Baker, Fate, Hutto, James E. Smith, Stirling, and Harry H. Stokes, 2017).³ Because of this, re-enrollment of ex-offenders with prior Medicaid coverage is less than 100 percent.

III. DATA

We use two administrative linked datasets to study crime and health outcomes. Our main sample includes all individuals convicted of a criminal offense in the state of South Carolina between 2007–2020. We link this sample to data on these individuals' public health insurance claims. The main advantage of these datasets is that both span several years and contain detailed individual-level information. Below we provide a detailed description of the data used in our analysis.

III.1. South Carolina Criminal Justice Data

South Carolina conviction-level data from the Department of Corrections contain information on the type of offense, sentence length, and indicators for offender characteristics, such as age, race and ethnicity. For our primary analysis, we consider only an individual's first offense observed in the data, although we include additional offenses when estimating effects on recidivism.

Table 1 contains summary statistics for these crime data. On average, individuals released prior to 2016 are 7 percentage points more likely to recidivate. This could be due to the fact that these individuals are released earlier; however, 1-year recidivism rates follow a similar pattern. This is reflective of two stylized facts. First, crime has fallen over time as part of a general, national trend. Second, South Carolina since 2010 has cut sentence lengths and attempted to reduce the total number of individuals incarcerated as part of a criminal justice reform.⁴

³For example, as summarized by the TeamWork follow-up report, "A series of visits to several correctional institutions also improved the project team's appreciation for the varied settings in which an inmate may find himself or herself while serving out a sentence."

⁴For more on this reform, see https://www.pewtrusts.org/-/media/assets/2010/06/10/pspp_south_carolina_brief.pdf.

III.2. South Carolina Medicaid Claims Data

We link individuals involved in the South Carolina criminal justice system from 2007–2020 to Medicaid enrollment data and claims data from the South Carolina Department of Health. These data contain information on Medicaid spells, as recorded by the state, as well as detailed data on Medicaid-covered hospitalizations, diagnoses, prescription drugs, and outpatient visits.

Importantly, one limitation of the data is that we do not have information on Medicaid *eligibility*. Therefore, we are not able to compare individuals that could have enrolled and chose not to. We instead focus on whether the Medicaid suspension policy did, in fact, allow for a higher enrollment rate in the six months following prison release.

IV. EMPIRICAL APPROACH

We exploit the sharp change in the South Carolina Medicaid suspension policy on June 30, 2016, which allowed ex-inmates to more easily re-enroll in Medicaid upon reentry, to identify the effects of access to health insurance on health and crime. In other words, our main approach is a regression discontinuity (RD) model that exploits the quasi-random timing of prisoner release dates. This strategy is motivated by the idea that characteristics of ex-offenders released after the policy’s implementation should not experience any discontinuous change in the absence of the new law; that is, any jump in Medicaid enrollment, prescription drug use, or health care utilization can be reasonably attributed to the Medicaid suspension law. For each individual i , we estimate the following models using OLS:

$$y_i = \beta_0 + \beta_1 \text{Medicaid}_i + f(\text{releasedate}_i) + \eta_i, \quad (1)$$

where y_i is the outcome of interest, including Medicaid enrollment, health care utilization, prescriptions, and recidivism. f represents some smooth function of our running variable, prisoner release date, binned by quarter. Medicaid_i is a dummy equal to one if i is subject to the Medicaid

suspension policy, which went into effect June 30, 2016. In other words, this variable is equal to one if an individual is released after the Medicaid suspension policy was in effect and zero otherwise. To construct our preferred estimates, we adopt a linear specification for the function of our running variable and allow the slope term to vary on each side of the Medicaid suspension eligibility threshold, although we additionally fit models where the running variable enters the equation quadratically and cubically. We highlight estimates from a specification that uses a one-sided bandwidth of 10 quarters, although we additionally present results from a wide range of bandwidths. Standard errors are clustered at the running variable (i.e. quarter released).

To study the more immediate effects of a change in health insurance access, we focus on Medicaid enrollment and health care utilization within the first two quarters (i.e. first six months) after release. This period of time has been shown to be a critical time for finding employment, registering for social services, and reintegrating into society (Petersilia, 2005; Carson, Sandler, Bhaskar, Fernandez, and Porter, 2021). We note that due to challenges experienced by staff in automatically re-enrolling individuals in Medicaid at the point of release, as recorded by the TeamWork team, estimates will represent intent-to-treat effects.

Identification of the above models rests on the assumption that the crime and health outcomes of individuals subject to Medicaid suspension laws would have been similar to those individuals released prior to the policy, had they not been eligible for re-enrollment. One potential violation of this assumption is that sentencing guidelines or Medicaid enrollment procedures for prisoners changed as a result of the policy change. Because convictions and sentence lengths for our sample population were determined prior to the policy change, this provides some reassurance that the identification assumption is likely to hold in this context. However, we additionally provide empirical evidence that any observable characteristics of ex-offenders and the types and frequencies of crimes committed are unrelated to the passage of the law.

V. RESULTS

V.1. Effects of Increased Medicaid Access on Enrollment

First, we analyze to what extent the Medicaid Suspension policy in South Carolina changed Medicaid enrollment for those released after July 2016. We first present the results visually in Figure 1.⁵ We plot binned means of Medicaid enrollment, by quarter released. Points to the left of the vertical line indicate enrollment rates for individuals released after the 2016 policy change, while those to the right of the vertical line represent enrollment rates for those eligible for the Medicaid suspend policy. Estimates indicate that being eligible for the Medicaid suspension policy increased enrollment in the six months after release by 11.1 percentage points, or 58.1 percent, as compared to individuals with prior enrollment that were not eligible for automatic re-enrollment.

V.2. Effects of Increased Medicaid Access on Health Care Take-Up

Next, in Figures 2–6 we present RD estimates from Equation (1) for variables that serve as a proxy for Medicaid utilization. In particular, we measure effects of the Medicaid suspension policy on take-up of outpatient services, inpatient services, and prescriptions. We additionally construct a variable for “any utilization,” which is an indicator variable equal to one if an individual claims either outpatient, inpatient, or prescription services.

We present these estimates in Table 2. Column 2 shows effects for the “any utilization” variable, while Columns 3 and 4 present effects for prescriptions, both on the extensive and intensive margins. Columns 5 and 6 present estimates for inpatient and outpatient services, respectively. Estimates indicate that the Medicaid suspension policy increases Medicaid utilization by 2 percentage points. Across nearly all outcomes that make up this variable, however, we find no positive effects of increased Medicaid access on any one particular health care utilization component.

When analyzing whether this change in uptake is concentrated in any race, gender, or age subgroups, we note that male inmates are driving the increase in health care services. More-

⁵We present the formal RD estimates from Equation (1) in Table 2 Column 1.

over, estimates indicate that Medicaid enrollment increases for all subgroups, although White ex-offenders increase inpatient services use by nearly 100 percent.⁶ Notably, when analyzing if any particular types of drugs are driving our main results, as presented in Figure A1, we find no systematic drivers for take-up, even when focusing separately on opioids and other mental health drugs, including antidepressants, or antipsychotic medications.

V.3. Effects of Increased Medicaid Access on Recidivism

Lastly, we test whether this increased access to Medicaid affected an individual's likelihood to reenter the criminal justice system in the future. We note that in our sample, approximately 30 percent of inmates recidivate before the end of our panel, with over 18 percent committing more than 1 additional crime after release. For those ex-offenders that do recidivate, they do so within 5 quarters, on average.

In Figure 7 and Table 3 we show the relationship between being released after the Medicaid suspension policy and recidivism. Estimates indicate that increasing Medicaid access by over 58 percent for ex-offenders does not decrease 1-year and 3-year recidivism. These findings hold even when analyzing effects by crime type, including future convictions of a violent crime or a property crime. In other words, although the state was successful at increasing the number of ex-offenders on Medicaid within six months of release, ex-offenders did not increase in prescription use, even for mental health drugs, or hospital services. Therefore, in a setting where little is done to inform inmates of available services and/or their enrollment status, these individuals are just as likely to re-offend as their ineligible peers, standing in stark contrast to other evidence that Medicaid suspension laws are effective in other states at reducing recidivism (Gollu and Zapryanova, 2022).

⁶We note that this may be due to the fact that Medicaid enrollment for offenders is prioritized by whether they have an immediate health care need at exit. For example, one follow-up of the initiative to enroll ex-offenders in Medicaid more seamlessly reported that the assigned case worker "exclusively focused on applications for inmates who were headed to the hospital," suggesting that those released with acute conditions have prioritized access to needed care (Soura, Alexander, Baker, Fate, Hutto, James E. Smith, Stirling, and Harry H. Stokes, 2017).

VI. SENSITIVITY CHECKS

Above, we present evidence that Medicaid suspension policies increase Medicaid enrollment and use of inpatient services, with increases in prescriptions for White offenders. In this section, we test the extent to which our main results are sensitive to functional form, bandwidth, or sample selection. We first provide sensitivity checks for the model specification. For example, a standard concern in RD models is that the results are a product of over- or underfitting the data or a product of bandwidth selection. To combat these concerns, we explore various alternative specifications in this section and show that our average estimates are robust to these other specifications.

First, we allow the order of the function of the release quarters from the date of the policy change (i.e. the running variable) to vary. We present these results in Table 4. Column 1 in Table 4 replicates the main (baseline average effect) results. Column 2 contains the results when we control for the days to the cutoff quadratically, and results in the 3rd column allow for it to vary cubically. Again, we allow the polynomials to vary on either side of the cutoff. The quadratic models generally produce results close to the baseline models. Under a cubic fit some of the estimate magnitudes are smaller, but all are still statistically significant and are similar to baseline estimates.

Additionally, in Column 4 we present estimates from a Poisson model to account for count nature of hospital visit and prescription data. Because some individuals are enrolled in Medicaid but never fill a prescription or commit a second crime, a number of observations are dropped in this model for those categories. Again, the estimates are similar in sign and magnitude to the main results.

Second, we explore how sensitive the estimates are to kernel selection. We estimate the model with a triangular kernel, instead of a uniform kernel, and present these results in Columns 5 and 6. To construct results shown in Column 6, we follow [Calonico, Cattaneo, Farrell, and Titiunik \(2016\)](#) to determine the mean square error optimal bandwidth for the RD estimator. Point estimates for medicaid enrollment are larger than the baseline estimates (14.3 versus 7.9 percentage points). Estimates in Columns 5 and 6 for inpatient care are statistically similar to Column 1, but estimates

using the MSE-RD bandwidth are less precise.

To further test bandwidth sensitivity, we replicate the models under a range of bandwidths. We test whether estimates are similar when allowing for bandwidths from 2 quarters on either side to a bandwidth of 12 quarters (3 years). Figure A3 reports the coefficients and standard errors from models using each of these alternative bandwidths, increasing by a one-sided bandwidth of 1 quarter, separately. For all outcomes, the estimated coefficient is consistent across the different bandwidths. We find a positive effect of the Medicaid suspension policy on Medicaid enrollment, ranging from 7.5–37.8 percentage points, with no effects on health care utilization or recidivism.

Lastly, we show that both the number of prisoners released at the July 2016 threshold and that the composition of prisoners and crimes remains smooth through the cutoff. See Figure A4 for a density test, following Frandsen (2017) and Figure A5 for estimates of prisoner characteristics, like gender, race, and age, as well as conviction characteristics, including the percent of those released that committed a violent crime. Importantly, each of these estimates is statistically insignificant, providing additional evidence to support the identification assumption.

VII. DISCUSSION AND CONCLUSION

In this paper we use Medicaid claims data and crime data from South Carolina to estimate the effects of a 2016 policy change in Medicaid eligibility re-enrollment for inmates upon release. Using linked administrative crime and health care claims, we find that the Medicaid suspension policy increased Medicaid enrollment and an overall take-up of health care services. Estimates indicate an increase in inpatient services for White ex-offenders, likely due to case workers prioritizing inmates with immediate health care needs. We find no evidence that Medicaid suspension increases take-up of mental health care drugs or outpatient services.

While the above results support the notion that the South Carolina 2016 Medicaid suspension policy did improve health care access for inmates upon release, we do not find any evidence that individuals were, on average, more likely to use Medicaid services, potentially due to information barriers and challenges in implementing the law. In particular, while over 500 inmates leave the

South Carolina prison system per month, when the policy went into effect, the state designated only one officer in charge of such cases. This case worker was only able to process 90 per month, leaving gaps in coverage for some individuals that were eligible for continued coverage (Soura, Alexander, Baker, Fate, Hutto, James E. Smith, Stirling, and Harry H. Stokes, 2017). Moreover, to enroll in Medicaid, inmates are required to sit for an in-person interview to automatically regain coverage, providing an additional barrier. And, as mentioned by the team responsible for writing the Medicaid suspend policy, several individuals that were previously eligible lost eligibility while in prison, due to relinquishing or losing dependent caregiver status (Soura, Alexander, Baker, Fate, Hutto, James E. Smith, Stirling, and Harry H. Stokes, 2017).

Finally, we present evidence that individuals with increased access to Medicaid are less likely to commit future violent crimes. Although we do not find evidence of a statistically significant drop in recidivism rates altogether, this finding suggests that continued care for the most vulnerable populations may still be welfare-improving. We note that collecting more evidence about the effectiveness of Medicaid suspension policies is an important avenue for future research.

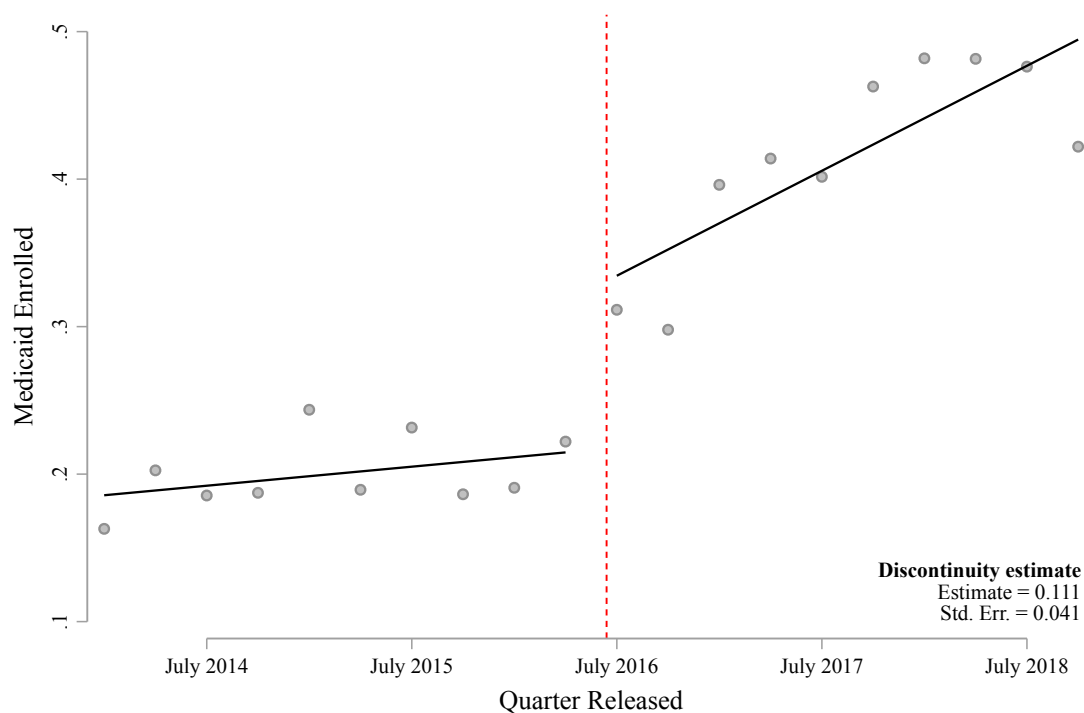
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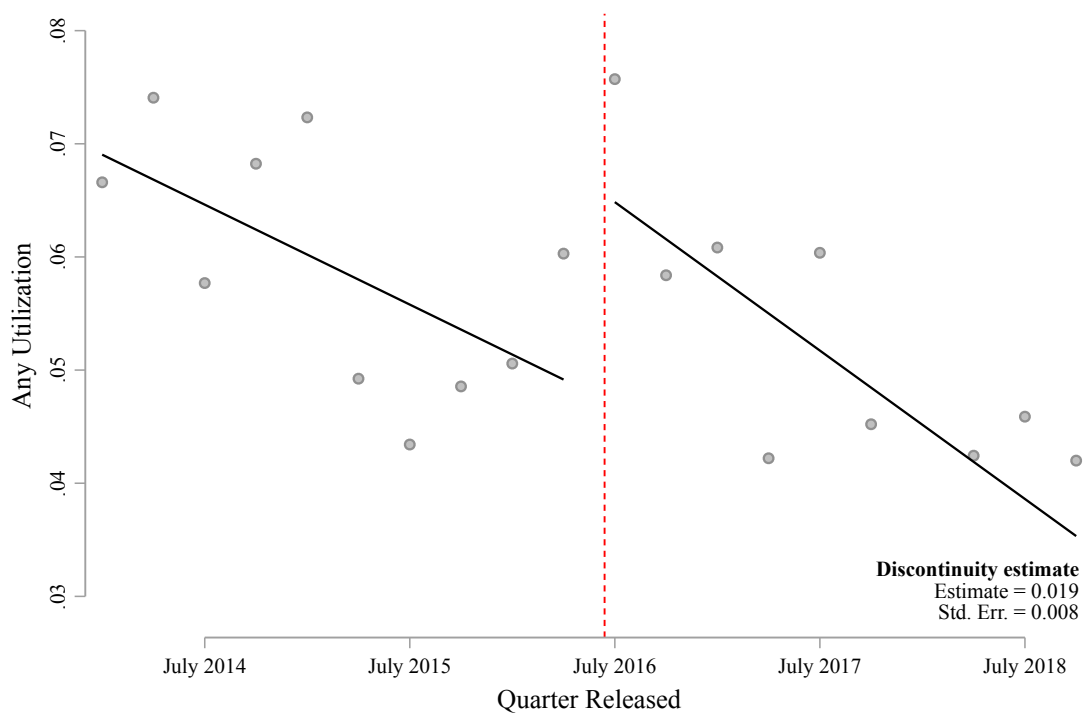
A. FIGURES AND TABLES

FIGURE 1 — Effect of South Carolina’s Medicaid Suspension Policy on Medicaid Enrollment within Six Months of Release



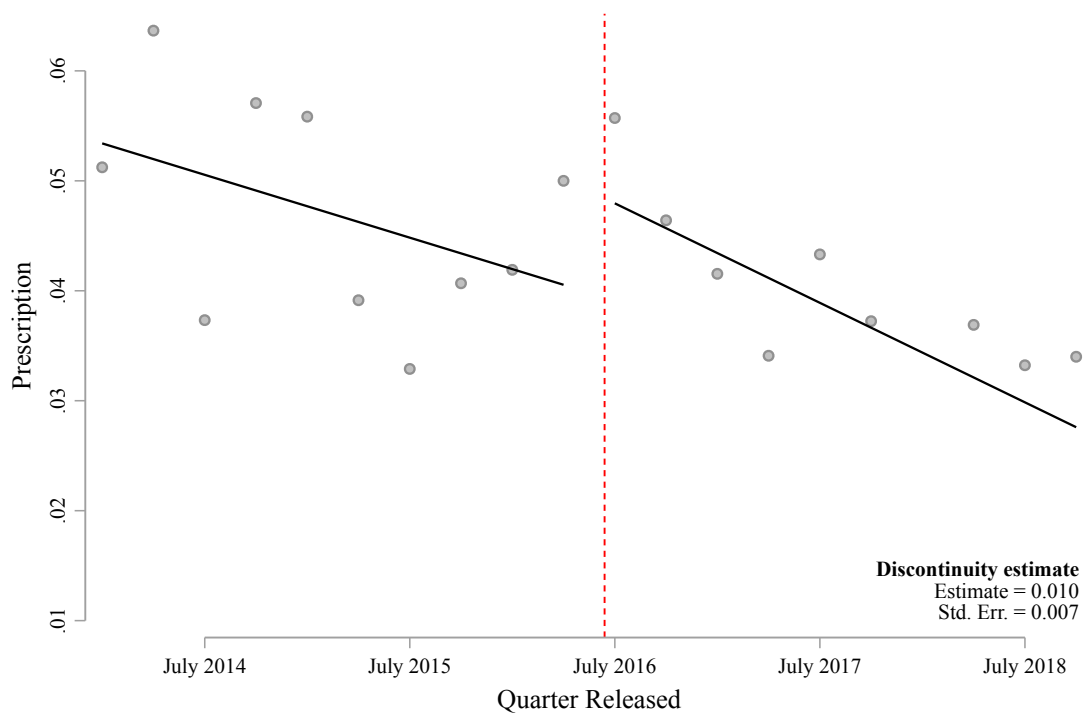
Notes: Incarceration data is from the South Carolina Department of Corrections from 2007–2020. Data on Medicaid eligibility for ex-offenders is from the South Carolina Department of Health. The sample includes previously incarcerated individuals enrolled in Medicaid in the six months prior to incarceration. Each figure plots means, binned at the quarterly level, and linear fits of the listed outcome. Scatters to the left of the vertical line represent outcomes for individuals released prior to the Medicaid Suspension policy, implemented on June 30, 2016.

FIGURE 2 — Probability of Using Medicaid within Six Months of Release



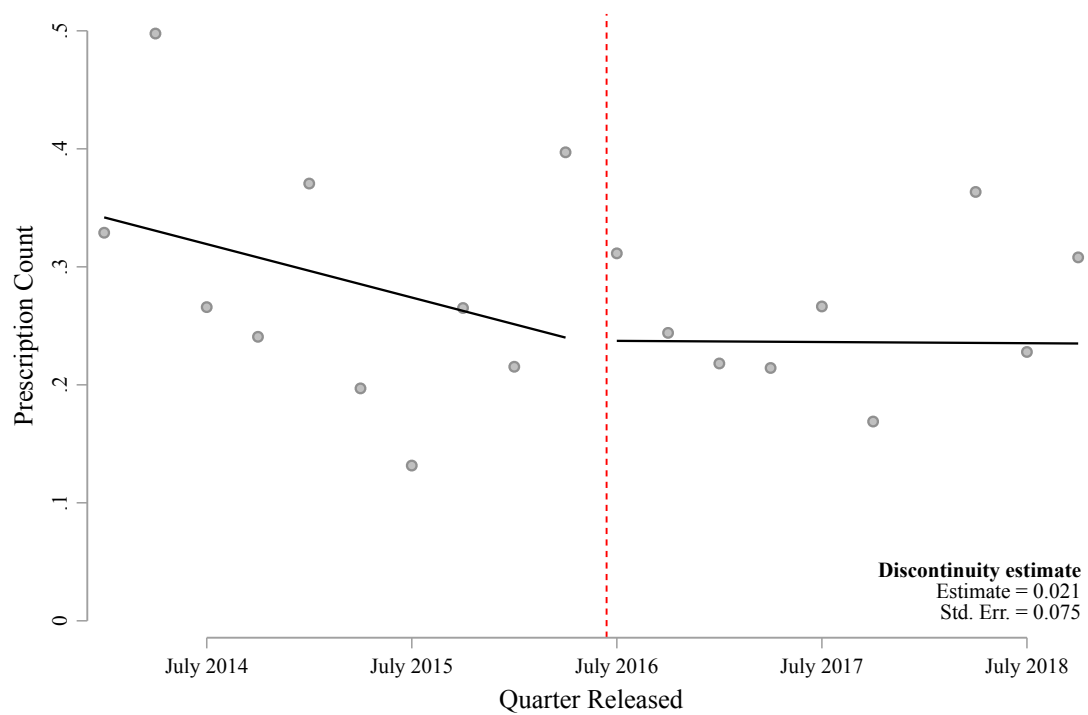
Notes: See Figure 1. The outcome variable is an indicator variable equal to one if an individual used Medicaid for inpatient, outpatient, or prescription services, and zero otherwise.

FIGURE 3 — Probability of Getting a Prescription Drug within Six Months of Release



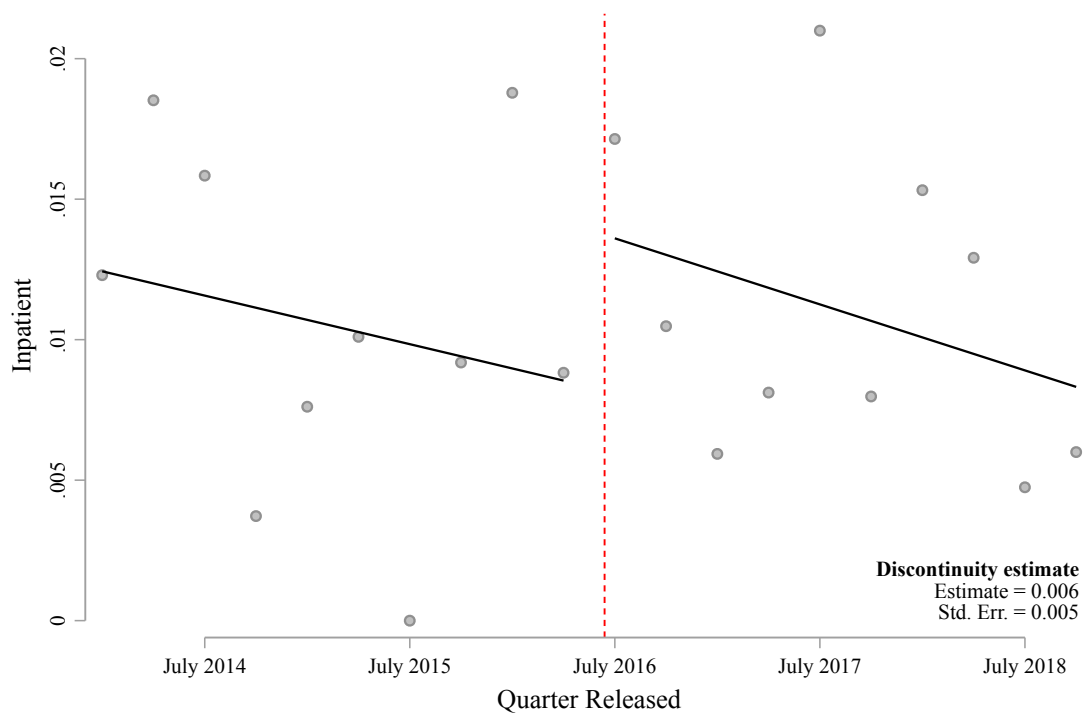
Notes: See Figure 1. The outcome variable is an indicator variable equal to one if an individual used Medicaid prescription services and zero otherwise.

FIGURE 4 — Total Number of Prescription Drugs within Six Months of Release



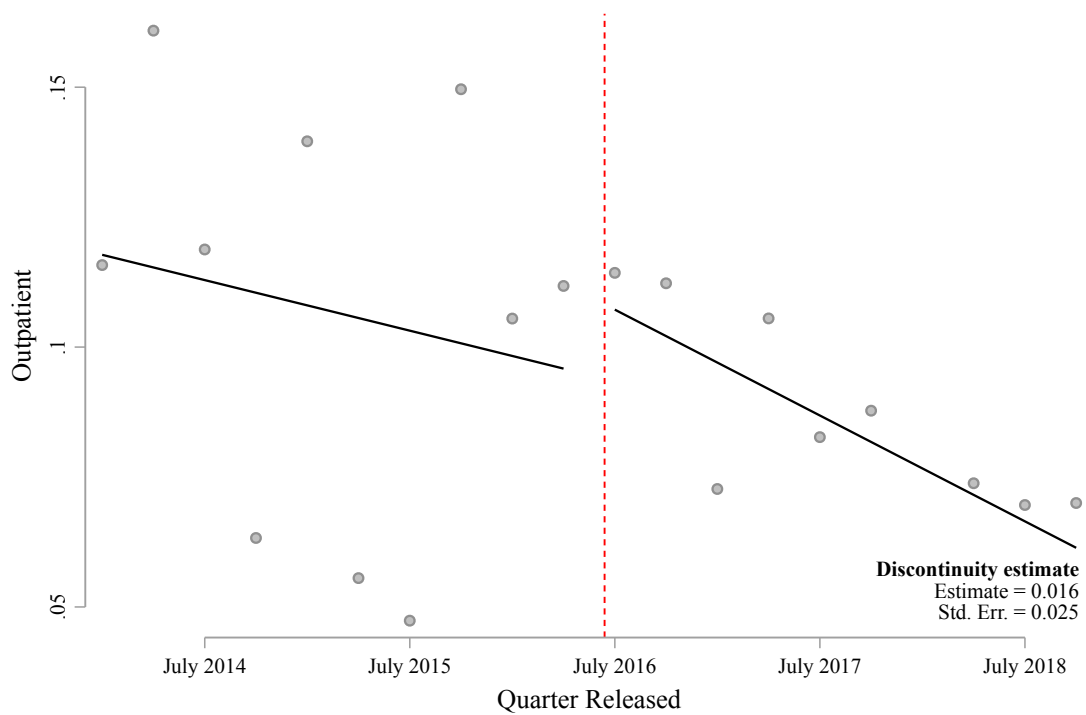
Notes: See Figure 1. The outcome variable is the count of prescriptions that an individual claimed using Medicaid.

FIGURE 5 — Probability of Using Inpatient Services within Six Months of Release



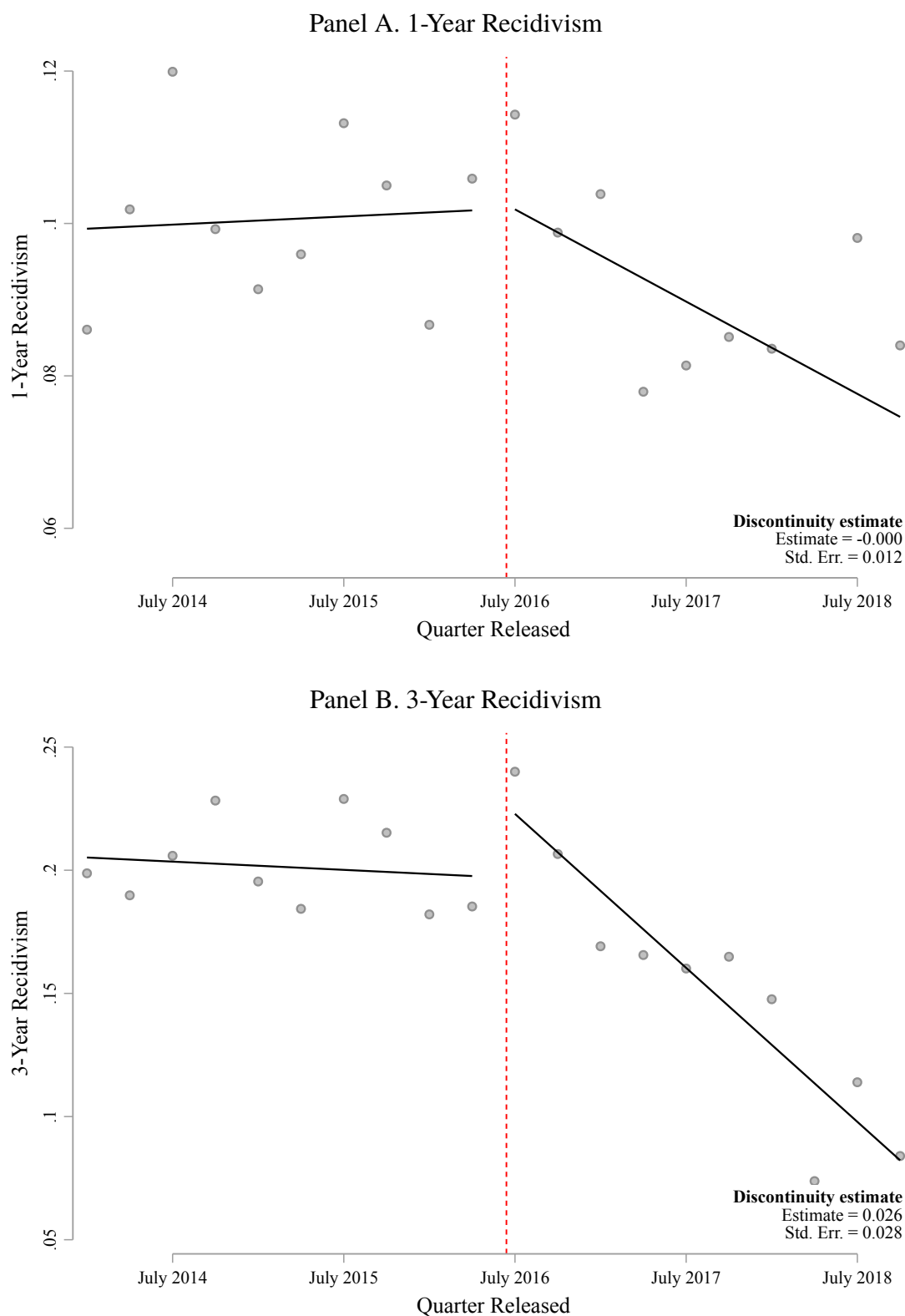
Notes: See Figure 1. The outcome variable is an indicator variable equal to one if an individual used Medicaid inpatient services and zero otherwise.

FIGURE 6 — Probability of Using Outpatient Services within Six Months of Release



Notes: See Figure 1. The outcome variable is an indicator variable equal to one if an individual used Medicaid outpatient services and zero otherwise.

FIGURE 7 — Effect of South Carolina’s Medicaid Suspension Policy on 1-Year and 3-Year Recidivism Rates



Notes: Crime data is from the South Carolina Department of Justice. Panel i displays scatters for a variable measuring whether an ex-offender commits a subsequent crime in the year following release. Panel ii displays re-offending within a 3-year period.

TABLE 1 — Summary Statistics

	Individuals Released Post-Medicaid Suspension	Individuals Released Pre-Medicaid Suspension
Eligible for Medicaid	0.58	0.56
Used Medicaid Outpatient Services	0.09	0.12
Used Medicaid Inpatient Services	0.02	0.02
Medicaid-Funded Prescription	0.11	0.15
Number of Medicaid-Funded Prescriptions	0.77	1.13
Recidivism	0.32	0.42

Notes: Crime data is from the South Carolina Department of Corrections. Medicaid claims data is from the South Carolina Department of Health.

Column 1 shows the means for treated individuals in our sample, i.e., individuals released from incarceration after July 2016. Column 2 displays the means for the comparison individuals, i.e., those released prior to July 2016.

TABLE 2 — Effects of a Medicaid Suspension Policy on Medicaid Enrollment and Utilization

	Medicaid Enrollment	Any Utilization	Rx	Rx Count	Inpatient	Outpatient
Medicaid Suspend	0.1107** (0.0405)	0.0192** (0.0085)	0.0099 (0.0068)	0.0209 (0.0754)	0.0061 (0.0049)	0.0161 (0.0251)
Pre-Period Mean	0.191	0.070	0.058	0.366	0.009	0.051
N	14568	14568	14568	14568	14568	14568

Notes: RD Estimates are based on Medicaid claims data from the South Carolina Department of Health and crime data from the South Carolina Department of Corrections. Standard errors are clustered at the running variable and are shown in parenthesis. Medicaid Enrollment is a variable equal to one if an individual is enrolled in Medicaid within six months of release. "Any Utilization" is an indicator variable equal to one if an individual experiences any Medicaid-covered prescription, inpatient, or outpatient services within six months of release. "Rx" is an indicator variable equal to one if an individual fills a Medicaid-covered prescription within six months of release, and "Rx Count" represents the total number of prescriptions in a given quarter. Indicator variables "Inpatient" and "Outpatient" represent take-up of inpatient and outpatient services within six months of release, respectively.

*, **, and *** indicate statistical significance at the ten, five, and one percent levels, respectively.

TABLE 3 — Effects of a Medicaid Suspension Policy on Recidivism

	1-Year Recidivism	3-Year Recidivism	Violent Crime	Property Crime
Medicaid Suspend	-0.00002 (0.01204)	0.02612 (0.02831)	-0.00341 (0.00597)	0.00605 (0.01683)
Pre-Period Mean	0.097	0.189	0.012	0.078
N	7284	7284	7284	7284

Notes: RD Estimates are based on Medicaid claims data from the South Carolina Department of Health and crime data from the South Carolina Department of Corrections. Standard errors are clustered at the running variable and are shown in parenthesis. Medicaid Enrollment is a variable equal to one if an individual is enrolled in Medicaid within six months of release. "1-Year Recidivism" is an indicator variable equal to one if an individual commits another offense within a year of release. "3-Year Recidivism" is an indicator variable equal to one if an individual commits another offense within 3 years of release. "Violent Crime" is equal to one if an individual commits a future violent offense, and zero otherwise, while "Property Crime" is equal to one if an individual commits a future property crime, and zero otherwise.

*, **, and *** indicate statistical significance at the ten, five, and one percent levels, respectively.

TABLE 4 — Robustness Checks

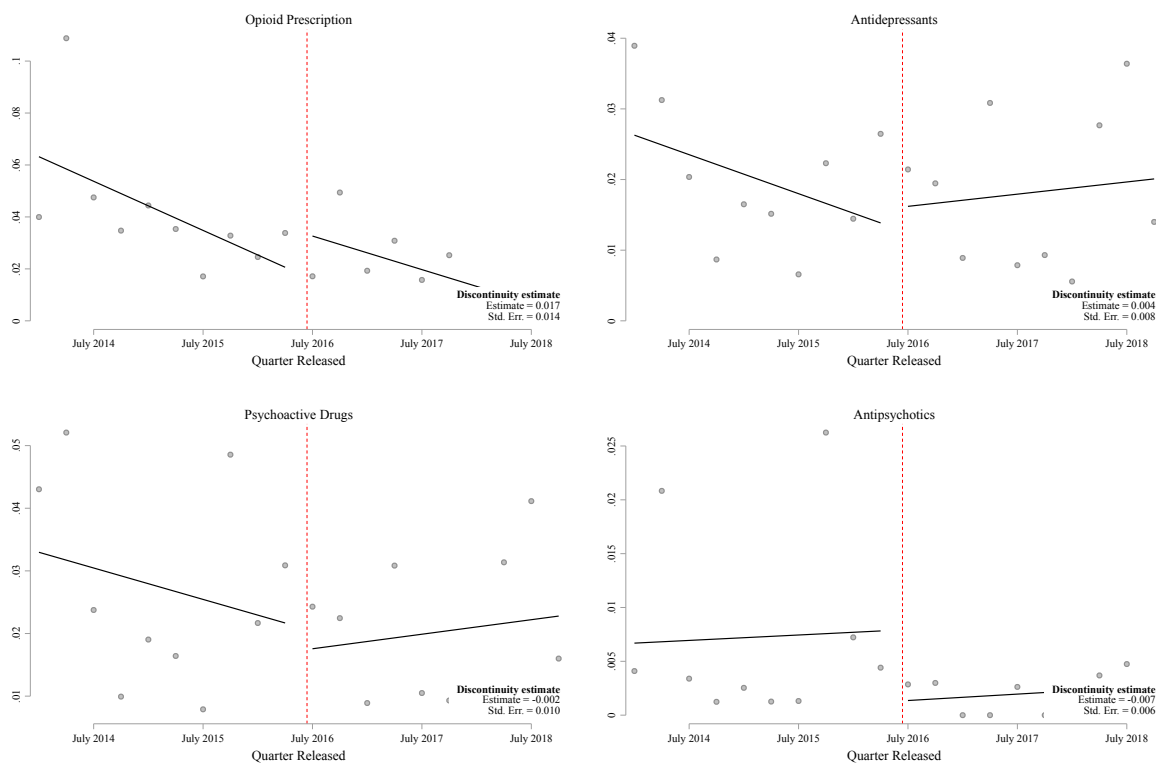
	Baseline	Quad Fit	Cubic Fit	Poisson	Triangular Kernel	
					Full BW	MSERD BW
Medicaid Enrollment						
Medicaid Suspend in Effect	0.1107** (0.0405)	0.1047*** (0.0321)	0.0749* (0.0403)	0.3774*** (0.0511)	0.0527 (0.0336)	0.1116*** (0.0148)
Any Utilization						
Medicaid Suspend in Effect	0.0192** (0.0085)	0.0195** (0.0081)	0.0251* (0.0125)	0.3485** (0.1464)	0.0067 (0.0177)	0.0191** (0.0080)
Prescription Take-Up						
Medicaid Suspend in Effect	0.0099 (0.0068)	0.0101 (0.0065)	0.0135 (0.0105)	0.2303 (0.1683)	-0.0003 (0.0159)	0.0099 (0.0071)
Inpatient						
Medicaid Suspend in Effect	0.0061 (0.0049)	0.0061 (0.0048)	-0.0008 (0.0064)	0.5668 (0.4403)	0.0181 (0.0126)	0.0060 (0.0048)
Outpatient						
Medicaid Suspend in Effect	0.0161 (0.0251)	0.0164 (0.0235)	-0.0018 (0.0260)	0.1630 (0.2323)	0.0156 (0.0222)	0.0294 (0.0422)
1-Year Recidivism						
Medicaid Suspend in Effect	-0.0000 (0.0120)	0.0015 (0.0100)	0.0201 (0.0127)	-0.0010 (0.1076)	0.0007 (0.0323)	-0.0001 (0.0144)
3-Year Recidivism						
Medicaid Suspend in Effect	0.0261 (0.0283)	0.0336** (0.0156)	0.0471** (0.0177)	0.1413* (0.0758)	0.0517 (0.0519)	0.0251 (0.0190)

Notes: Each coefficient is generated by a separate regression of Equation (1) using the listed outcome as the dependent variable. Column 1 replicates the baseline results for comparison. Columns 2 and 3 allow for the quarters from the cutoff to vary quadratically and cubically (in addition to on either side of the threshold) respectively. Column 4 reports coefficient from a Poisson model. Columns 5 and 6 fit the model using a triangular kernel instead of uniform kernel. Column 5 reports estimates from the full sample, while Column 6 uses a MSE-driven bandwidth. The MSE-calculated bandwidths for every outcome is 3 quarters. Crime data are from the South Carolina Department of Corrections. Data on Medicaid enrollment and utilization is from the South Carolina Department of Health and Human Services.

*, **, and *** indicate statistical significance at the ten, five, and one percent levels, respectively.

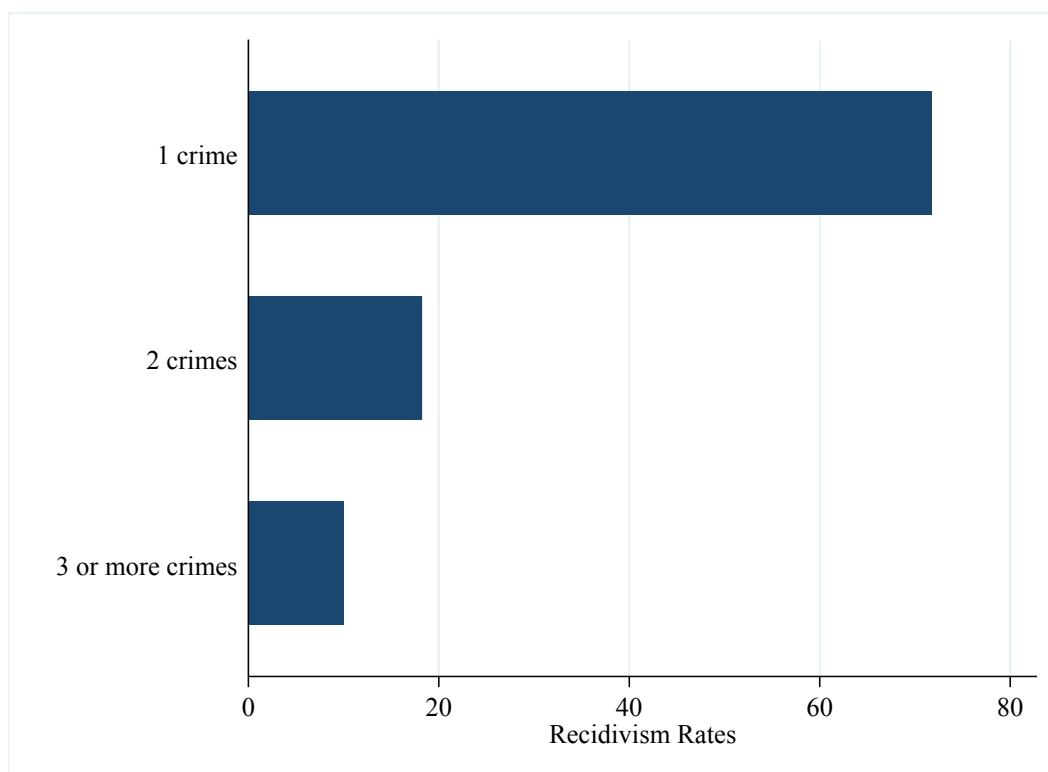
APPENDIX

FIGURE A1 — Effects of Medicaid Suspension on Prescription Take-Up of Opioids and Mental Health Drugs



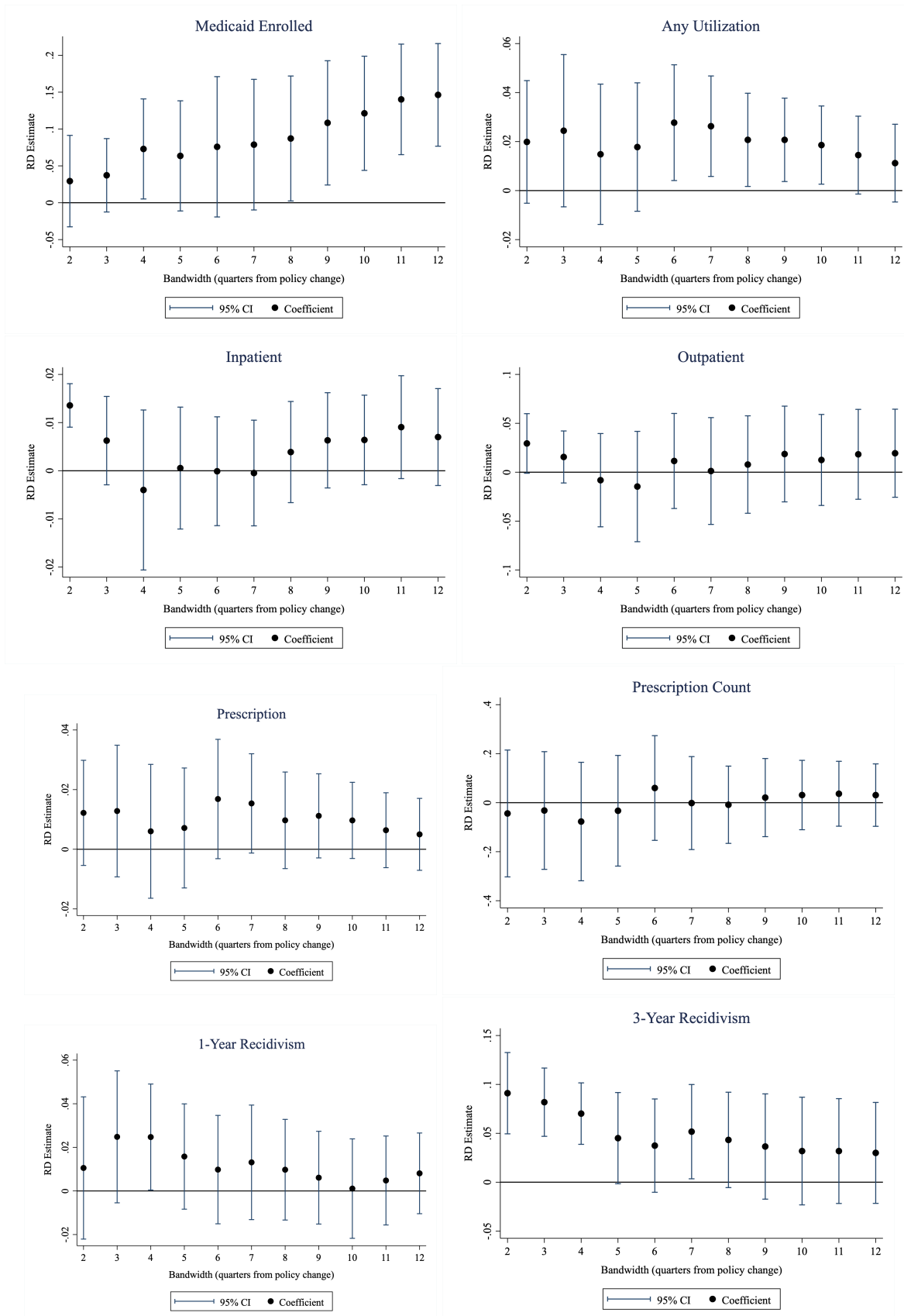
Notes: See Figure 1. Each figure plots means, binned at the quarterly level, and linear fits of the listed outcome. The top left panel presents estimates on opioid take-up within six months of release, while the top right panel presents scatters and RD estimates for antidepressants take-up within six months of release. The bottom left and right panels presents estimates for antipsychotic prescriptions take-up and any mental health prescriptions, respectively.

FIGURE A2 — Effect of South Carolina’s Medicaid Suspension Policy on Recidivism for Violent Crimes



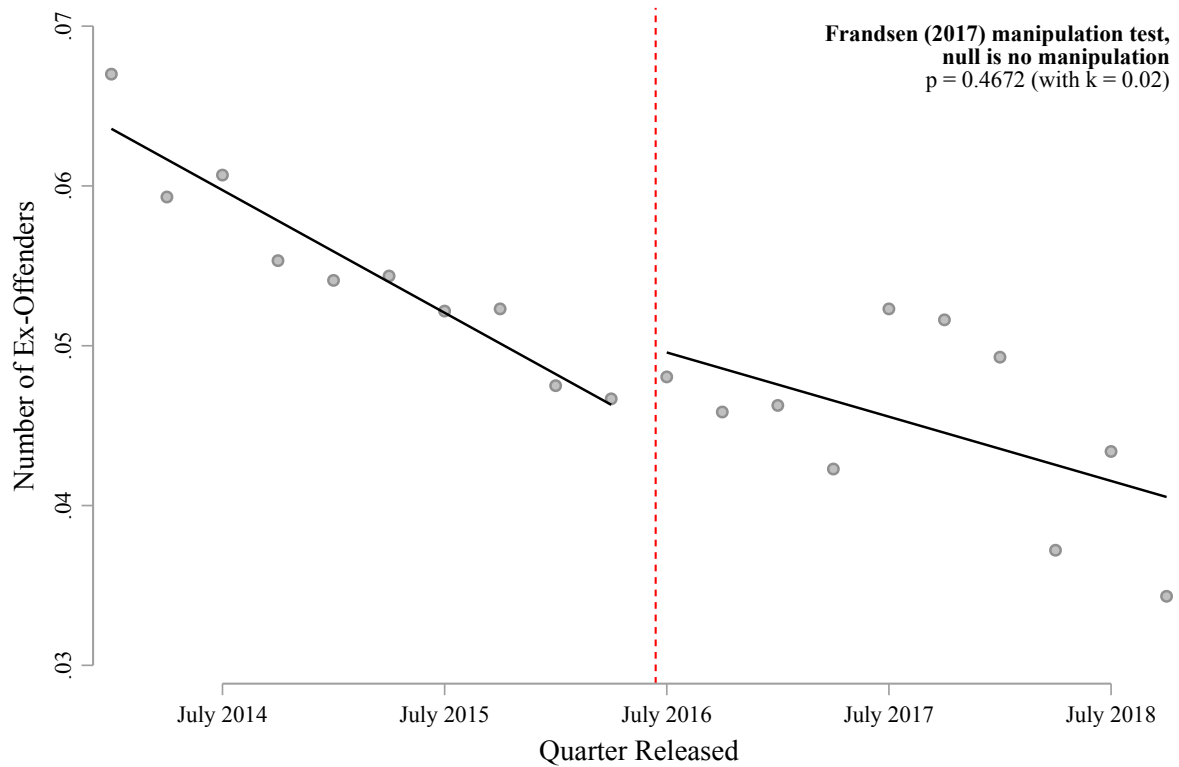
Notes: Crime data is from the South Carolina Department of Justice. The above descriptive graph shows the percent of offenders in our sample that commit only one crime (top bar), two crimes (middle bar) and 3 or more crimes (bottom bar).

FIGURE A3 — Testing Estimate Sensitivity Across Bandwidths



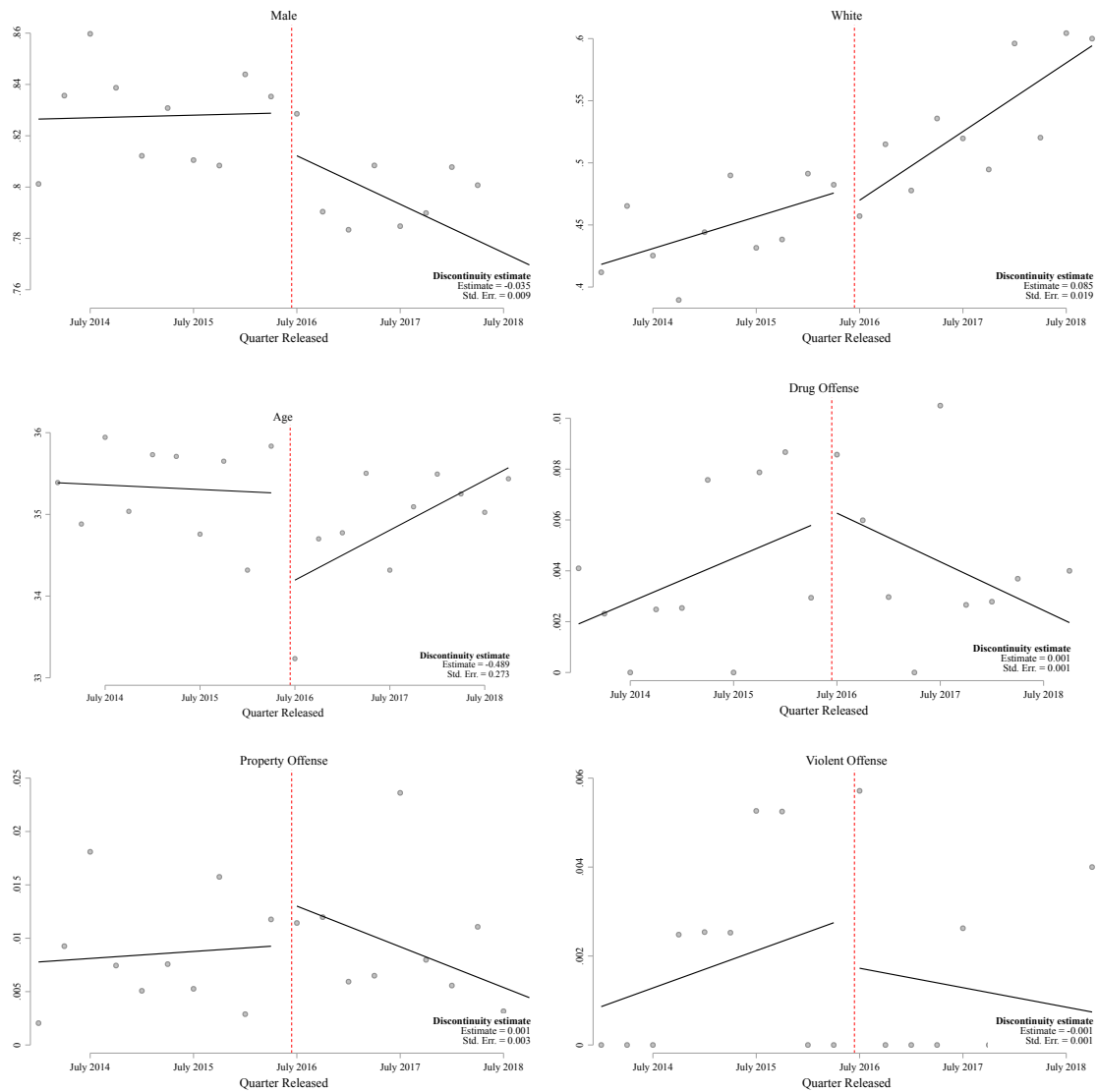
Notes: RD Estimates are based on Medicaid claims data from the South Carolina Department of Health and crime data from the South Carolina Department of Corrections. Standard errors are clustered at the running variable and are shown in parenthesis.

FIGURE A4 — Distribution of the Number of Prisoners Released



Notes: See Figure 1 .The vertical line represents the date released at which prisoners are eligible for automatic Medicaid re-enrollment. Scatters represent the density for each quarterly release date bin. We present the estimate and corresponding p-value the [Frandsen \(2017\)](#) density test for running variables with discrete realizations to test for manipulation at the cutoff.

FIGURE A5 — Testing Discontinuity of Individual Characteristics and Conviction Type



Notes: Incarceration data is from the South Carolina Department of Corrections from 2007–2020. Data on Medicaid eligibility for ex-offenders is from the South Carolina Department of Health. The sample includes previously incarcerated individuals enrolled in Medicaid in the six months prior to incarceration. Each figure plots means, binned at the quarterly level, and linear fits of the listed outcome. Scatters to the left of the vertical line represent outcomes for individuals released prior to the Medicaid Suspension policy, implemented on June 30, 2016. In the top two panels we consider indicator variables equal to one for inmates who are male or White. In the middle left panel we present an estimate for offender age. In the middle right panel and bottom panels we consider whether the type of crime changes at the policy cutoff, including the probability of being released for committing a drug, property, or violent crime, respectively. In each panel we present discontinuity estimates and standard errors, based on our main RD approach described by Equation (1).