

# The Impact of Incarceration on Employment, Earnings, and Tax Filing\*

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## Abstract

We study the causal effect of incarceration on taxfiler behavior, formal W-2 employment, and alternative work in North Carolina and Ohio using two quasi-experimental designs: random assignment to judges and discontinuities in sentencing guidelines. Across designs and locations, incarceration generates short-term drops in activity while individuals remain in prison. Drops are larger for groups with higher earnings and employment rates prior to their case filing date. Across various sub-samples, however, we find robust evidence ruling out large long-run scarring effects on tax filing, EIC claiming, W-2 employment and earnings, or self-employment and contract work earnings. Our results indicate that incarceration itself is unlikely to be the most important driver of the extremely low earnings and tax filing observed among the formerly incarcerated population.

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The incarceration rate in the United States is more than six times that of the average developed country (Kearney et al., 2014). Such extensive prevalence of incarceration could have important ramifications for tax administration if exposure decreases formal labor market attachment and activity. In the short run, incarceration entails *incapacitation* that directly impact earnings and complicate tax filing (Looney and Turner, 2018). However, incarceration might have longer-term *scarring* effects on earnings ability in the long run. Both the evolution of earnings around incarceration events and previous resume-audit studies suggest that this may be the case (Pager, 2003). Without access to standard jobs, which are subject to tax withholding, it is possible that individuals with a criminal history rely more heavily on independent contracting or other self-employment work that is not subject to withholding. This could result in a higher compliance burden for formerly incarcerated workers as they re-enter the labor market, and an elevated likelihood of failing to correctly report labor income on individual tax returns. In addition, the experience of incarceration might directly impact subsequent compliance with the tax code.

However, there is limited evidence on the earnings and tax filing behavior of incarcerated and formerly incarcerated individuals. One notable exception is the work by Looney and Turner (2018), who descriptively document shifts in earnings before and after incarceration events, finding limited “scarring” effects of incarceration. In the broader literature, evidence on the labor market effects of incarceration is mixed, particularly with respect to the importance of scarring. While some descriptive research suggests lasting negative impacts, studies using quasi-experimental variation are typically under-powered to detect moderately sized effects (Kling, 2006; Loeffler, 2013; Harding et al., 2018) or rely on structural decompositions of incapacitation and scarring effects (Mueller-Smith, 2015). Experimental correspondence studies of employer responses to signals of incarceration often find large effects on employer contacts (Pager, 2003), but implications for realized labor market activity are less clear without information on where and how actively the previously incarcerated apply for jobs.

This paper studies the effects of incarceration on taxpayers’ behavior. We seek to shed new light on the impacts of incarceration on tax return filing, take-up of transfers administered through the tax system (e.g., EIC), and earnings reported on information returns including payments to independent contractors. We make two main contributions over previous work. First, we leverage two quasi-experimental research designs to estimate the causal effects: random assignment to judges and discontinuities in sentencing guidelines, both of which were previously validated in Norris et al. (2021b) and Rose and Shem-Tov (2021a). To do so, we combine administrative data from two states, North Carolina and Ohio, matched to Internal Revenue Service (IRS) records for about half a million individuals charged or convicted of a felony offense from the 1990s to the present. In each design, treatment causes

an initial spike in incarceration, which peaks in the first year following the case filing date before fading out. By examining tax filing and labor market outcomes after the initial direct effects of incarceration dissipate, we provide a simple and transparent assessment of any long-term scarring effects. Our linked data sets across multiple geographies and use of multiple research designs allow us to examine the generality and sensitivity of these effects in unprecedented detail. Second, we study alternative work, as measured both by self-reported self-employment earnings on Schedules C/SE as well as by firm-reported payments to gig workers acting as independent contractors on 1099 information returns. These outcomes are unique to IRS tax data (Collins et al., 2019).

We begin by documenting that individuals facing incarceration have particularly low filing rates and earnings even before their court date, suggesting limited scope for large negative effects after incarceration. Consistent with previous work, about half of the sample has any W-2 reported earnings in the two to four years prior to their case, and only 10% of those with any W-2 earnings make more than \$23,000.<sup>1</sup> About one-third of the sample files a 1040 return before the case, but a meaningful share of this population also receives key benefits through the tax code. For example, 18 percent of all individuals—approximately half of those who file a return—received EIC payments, which is more than double the share in the general population.

We find similar results across study locations and research designs. In both Ohio and North Carolina, we find that the effects of incarceration are concentrated almost entirely in periods when defendants are more likely to actually be in prison. In the first tax year following the court date, the instruments induce an additional 100 days of incarceration.<sup>2</sup> The propensity to have W-2 reported wage earnings drops by about 10 percentage points and wage earnings fall about \$1,000 in both states, relative to non-incarcerated means of 40% and \$3,000, respectively. The propensity to report a 1040 return falls by 6% relative to a mean of about 30%. However, these effects are transitory. By the third year following the court date, the instruments induce a difference of only 20 days of incarceration and the average effects on filing and W-2 reported earnings are indistinguishable from zero. In practice, we find no effect on self-employment reported on Schedule SE or independent contract work reported on 1099 returns in either the short-term or longer-term.

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<sup>1</sup>This population may also have substantial informal earnings (Emory et al., 2020) that are not reported to the IRS on an individual tax return or on an information return. If reported and unreported earnings co-move, we will underestimate the overall income effect. If individuals shift from reported to unreported earnings as a result of incarceration in the long-run, we will actually overestimate earnings reduction. Given that we find little evidence for long-run earnings reductions, this appears unlikely.

<sup>2</sup>The first-year effect is not 365 days because some initially-incarcerated individuals receive sentences shorter than one year, and some initially non-incarcerated individuals are later incarcerated on a different charge.

This pattern of results is most consistent with incapacitation as the main mechanism through which incarceration affects taxpayer behavior. In contrast, we find little evidence in favor of longer-term scarring effects: incarcerated and non-incarcerated defendants behave similarly five to nine years after their case. Limited scarring is consistent with the extremely low overall levels of activity and filing rates. When we split the sample by whether pre-case W-2 earnings were more or less than \$15,000 (roughly the federal minimum wage for full-time workers), the lower earning group has a smaller initial drop in W-2 earnings and employment and filing rates, and fully recovers along all outcomes within five years. The higher earning group experiences a larger initial drop in earnings and filing behavior, but also converges to full recovery.

Despite our baseline results, it is possible that key sub-populations experience larger effects. Accordingly, we conduct a number of other heterogeneity analyses to examine whether this is the case. While one might expect that defendants' long-run outcomes would be harmed more by their first incarceration sentence than by subsequent ones, we find similar effects on long-run outcomes for both groups. While there is a greater initial and medium term drop in W-2 employment and earnings and filing behavior for defendants with no prior incarceration history, differences in preexisting labor market attachment explains much of this difference. Differences in effects across racial and gender groups are relatively small and also are explained by differences in pre-period earnings and incapacitation effects of incarceration across these groups. Given that past work has highlighted differences in effects of incarceration on recidivism across research designs (Estelle and Phillips, 2018), the consistency of our results across research designs, sub-samples, and institutional contexts is striking and suggestive of broader external validity.

If defendants have children, their incarceration spells may directly impact the earnings and tax filing behavior of their co-parents. We therefore also estimate effects on defendants' co-parents, defined as individuals with whom defendants had a child with prior to the filing date of their focal case. We find limited long-run or cumulative effects of incarceration on this group as well. Despite declines in defendants' 1040 filing rates and EIC claiming in the immediate aftermath of incarceration, their co-parents' are no more likely to claim additional EIC dependents. We also find that incarceration has no detectable impact on rates of co-filing, suggesting imprisonment does not sharply affect household composition.

Our results are consistent with prior work in some ways. We confirm previous research suggesting large incapacitation effects on earning and tax filing (Looney and Turner, 2018). While Looney and Turner (2018) and Grogger (1995) find no evidence of scarring from incarceration and arrests, the resume experimental correspondence literature finds that fictitious job applicants with experimentally-manipulated signals of criminal justice contact have much

lower contact rates (Pager, 2003; Pager et al., 2009).<sup>3</sup> This difference might be explained by differences in the study populations—since about half the sample has any W-2 earnings before their case, it might be that those defendants least likely to even apply for jobs are those most affected by a criminal record. Alternatively, it may be that other criminal justice interventions, such as a criminal conviction or pre-trial detention, are responsible for these differences; our estimates focus solely on the effect of incarceration. Initial differences in callback rates might also decline over the rest of the job-search process, or applicants with criminal records may compensate by applying to more jobs. In any case, we find little evidence that a history of incarceration impacts taxpayer earnings or filing behavior after their sentence is complete.

The rest of the paper is organized as follows. In Section 1, we describe the data and setting. Section 2 presents descriptive statistics. Section 3 presents the empirical strategies and Section 4 presents the main results. Section 5 estimates effects on key sub-groups. Section 6 estimates household effects, and Section 7 concludes.

## 1 Data

In this section, we begin by describing the data. We then describe the sample construction in both Ohio and North Carolina and the procedure for linking administrative criminal justice data to IRS records.

### 1.1 Data sources and sample restrictions

#### **IRS records on employment, earnings and transfers administered through the tax system**

We use de-identified federal income tax records from the years 2000 to 2019. We draw on both 1040 income tax return filings and third-party-reported information returns. Taxpayer-reported self-employment earnings, tax-unit adjusted gross income (AGI), and earned income tax credit (EIC) take-up are drawn from 1040 filings. Our main data on wage and salary earnings and employment come from W-2 returns, which are reported to the IRS directly by employers, regardless of whether or not an individual chooses to report that income on a tax return. We measure all IRS outcomes as annual totals.

We examine various measures of alternative work. Our first measure is self-employment as

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<sup>3</sup>Researchers in this literature often use a gap in work history—ostensibly an incarceration spell—to signal a criminal history, and so estimate the effect of both a criminal record and incarceration on job callbacks.

reported on 1040 information returns on Schedule C and SE. We also observe non-employee compensation (NEC) payments by firms to self-employment independent contractors on 1099-MISC Box 7 irrespective of whether the individual files a tax return. Following the method in [Collins et al. \(2019\)](#), we also incorporate earnings from online platform work in the gig economy in later years of our panel. These outcomes have been missing from prior studies of incarceration, which could be a major omission if workers on the margin of the labor force are more likely to be engaged in alternative work activities. Moreover, our NEC outcomes do not condition on filing, which is especially important for the population we study.

Finally, we measure mortality and reconstruct families using links to data from the Social Security Administration (SSA). When studying the effect of incarceration on family members of the defendant, we define a *co-parent* as someone who had a child with the defendant before the focal case using birth records from the SSA.<sup>4</sup>

## Ohio

In Ohio, we collect publicly-accessible administrative court records from the Common Pleas courts in the three largest counties in the state: Franklin, Cuyahoga, and Hamilton. These counties contain a total population of approximately 3.5 million people across the cities of Columbus, Cleveland, and Cincinnati and their outlying suburbs. These court records contain the full set of available felony case records in each county, spanning from approximately 1991 to 2017 (exact year depends on the county). They contain the full case history, including charges, sentencing date and decisions (punishment type and sentence length), defendant characteristics (name, date of birth, gender, race, and home address), and identity of judges assigned to the case. These include cases that were dismissed or in which the defendant was acquitted, but exclude the approximately 5% of cases that were expunged.

We follow a similar procedure as in [Norris et al. \(2021b\)](#) to construct the sample, restricting attention to the set of cases that are randomly assigned to judges. By state law, judges are randomly assigned to cases immediately after arraignment unless the case meets certain conditions that are observable in the data (e.g., the defendant is charged with a capital offense or currently under community supervision for a previous case). We limit the sample to cases overseen by judges who hear at least 100 cases to limit noise in the construction of the instrument. In around 5% of cases, cases are transferred between judges after random assignment, typically to even out workload; in this situation we use the original, randomly-assigned judge to construct the instrument. For the main analysis we focus on

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<sup>4</sup>This definition follows previous work in this area [Norris et al. \(2021b\)](#), and has the additional advantage of not requiring that either parent ever file taxes.

individuals aged between 18 and 50 at the time of offense to focus on defendants most likely to be working if not incarcerated.

## **North Carolina**

We use publicly-accessible administrative criminal justice records on arrests, charges, and sentencing from two sources. The first consists of records provided by the North Carolina Administrative Office of the Courts (AOC) covering 1990 to 2017. This data is publicly available from the AOC’s Automated Criminal/Infraction System. Second, we use records from the North Carolina Department of Public Safety (DPS) that contain detailed information on the universe of individuals who received supervised probation or incarceration sentences from the 1970s to the present. These data can be downloaded from the internet by the public and allow us to observe sentencing inputs and outcomes, including the determinants of guidelines sentencing recommendations used to construct the instrument as well as ultimate sentences.

The sample construction mirrors that of [Rose and Shem-Tov \(2021a\)](#). We restrict to all felony convictions for offenses committed between 1995 to 2014 and therefore sentenced under North Carolina’s structured sentencing guidelines for felony offenders. We do not include misdemeanors, drug trafficking, or driving while intoxicated offenses, since they are sentenced under different guidelines for which it is not feasible to construct instruments for incarceration. We limit our analysis to felons convicted of offenses in the five least severe classes (Class E through I). More severe offense classes offer limited variation in incarceration sentences and comprise a small share of all cases. We include individuals with prior record points—North Carolina’s numerical measure of criminal history—of 25 or fewer, since individuals with more points would be unaffected by our instruments. As in the Ohio data, we also restrict the analysis to individuals aged between 18 and 50 at the time of offense.

## **Linking across data sources**

State administrative criminal justice records were linked to tax data using full name, date of birth, gender, and address information, as well as additional variables only available in North Carolina or Ohio. For example, in North Carolina, we observe all or the last four digits of social security numbers for a large share of the sample. 86.2% of records were matched in Ohio and 93.8% in North Carolina. After linking all records are fully anonymized. The matching process for both states is described in more detail in [Table B.1](#). In our analysis, we restrict the sample to individuals ever matched to the IRS records rather than inferring zero income for non-matched individuals. As we demonstrate in [Table B.2](#) and discuss further

below, whether an individual is matched to the IRS records and how is not correlated with our instrumental variables.

## 2 Descriptive statistics on tax-filing behavior and firm-reported earnings

In this section, we describe the tax-filing behavior and firm-reported earnings patterns of individuals in our sample. These descriptive statistics are essential for interpreting and contextualizing our estimates on the casual effects of incarceration on taxpayer behaviors. Moreover, statistics on the filing behavior, employment, and earnings of individuals who interact with the criminal justice system are of interest in and of themselves, given how little is known about the activity of this population (Looney and Turner, 2018).

Table 1 reports summary statistics on demographics, criminal history, and the treatment of interest, incarceration sentences. As in most samples of individuals who interact with the justice system, our sample is primarily composed of young men, with a median age of 30. In North Carolina and Ohio, respectively, 72 and 70% have faced prior criminal charges and 47 and 28% have been previously incarcerated.<sup>5</sup> Roughly 35% of the sample receives an incarceration sentence in North Carolina, with an average length of about 17 months. Sentences have a similar average length in Ohio and are applied in about a third of cases.

Table 2 describes basic tax filing behaviors for both samples in the two to four years prior to the focal event. Notably, individuals eventually sentenced to incarceration have low tax filing rates before their case filing date. In North Carolina, only 29% of eventually-incarcerated individuals file 1040 returns and in Ohio only 31% do. Of the individuals who file a 1040 return, roughly half claim EIC credits. Total credits averages approximately \$2,000 conditional on claiming. Notably, the share of individuals receiving EIC benefits in our sample is slightly larger to the share that has positive income tax liability before credits.

Table 3 reports summary statistics on employment and earnings reported on W-2 returns and self-employment earnings—both those self-reported reported on Form 1040 Schedule SE and gross nonemployee compensation reported by firms on 1099-MISC box 7. Of particular note is the low rate of W-2 employment ( $\approx 50\%$ ) and the extremely low levels of earnings. Average W-2 earnings are about \$5,000 (including those without any earnings), far below the federal poverty line, and 90% percent earn less than \$15,000 (which approximately corresponds to a year of full-time minimum wage work). Interestingly, the labor market statistics

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<sup>5</sup>Higher rates of past incarceration and criminal history in NC relative to OH are expected given that in North Carolina the sample consists of individuals convicted of a felony and in Ohio of individuals charged with a felony.



are very similar across both states, suggesting that our estimates are likely relevant to other jurisdictions in the U.S. W-2 earnings are slightly higher in Ohio, consistent with differences in criminal history and prior incarceration reported in Table 1. The bottom of the table classifies W-2 recipients by the two-digit NAICS code of the payer of their largest return. As expected, some industries have much larger shares of individuals in the focal population than others, particularly traditionally low-wage sectors including administrative support (including temp work) and waste management, food service, and construction.

The proportion reporting Schedule SE income is relatively low among this population; less than four percent of individuals report income from self employment. Conditional on having positive Schedule SE self employment earnings, the median and average earnings are \$8,640 and \$9,448 in North Carolina and \$9,980 and \$11,147 in Ohio. However, Schedule SE reporting rates may in part be a reflection of 1040 filing more broadly. When we examine the share of individuals with non-employee compensation reported by a firm on a 1099-MISC we observe greater prevalence of about five to six percent across categories. The relative proportion of individuals with compensation reported on W-2 and 1099 returns in our sample is lower than the broader population (Collins et al., 2019).

As an initial point of comparison, Tables B.4 and B.5 report similar summary statistics as in Tables 2 and 3 but five to nine years after case filing. The comparison reveals several notable patterns. Differences between incarcerated and non-incarcerated defendants are large, with, for example, 10-20 p.p. lower rates of nonemployee compensation reported by a firm on a 1099-MISC, substantially lower 1040 filing and EIC claiming, and meaningfully smaller W-2 earnings. While some portion of these differences may reflect causal effects of incarceration, much of it may also reflect selection. The two research designs we introduce next will allow us to isolate the causal contribution of exposure to prison on these differences in long-run outcomes.

An important caveat is that these statistics only capture income reported to the IRS by an individual or by a third-party payer. In practice, this population may also have substantial informal earnings (Emory et al., 2020) that are not reported to the IRS either on an individual tax return or on an information return. However, we cannot speak to the presence of such earnings using our data.

### 3 Empirical strategies

We begin by presenting each of the research designs. Since both designs have been previously discussed and validated in Norris et al. (2021b) and Rose and Shem-Tov (2021a), we focus on explaining the pros and cons of each approach and present validation exercises specifically

related to employment and earnings.

### 3.1 Variation across judges in incarceration propensities

To study the causal effects of incarceration in Ohio, we use an instrumental variables approach based on judge severity. As the name would suggest, the “judges” instrument has been used extensively in the literature on the effects of incarceration (Kling, 2006; Loeffler, 2013; Aizer and Doyle Jr, 2015; Mueller-Smith, 2015; Dobbie et al., 2018; Bhuller et al., 2020). When judges are randomly assigned to cases, their sentencing tendencies will be independent of defendants’ potential outcomes. However, defendants assigned to more severe judges will be more likely to be incarcerated, implying that severity can be used as an instrument for incarceration.

Our preferred approach uses the judge’s incarceration propensity in all other cases except individual  $i$ ’s as an instrument for  $i$ ’s sentence. Following the approach in Norris et al. (2021b), our main specification takes the form:

$$D_{ijc} = \alpha z_{(i)j} + X_{ijc}\lambda + \mu_c + e_{ijc} \tag{1}$$

$$Y_{ijct} = \beta D_{ijc} + X_{ijc}\phi + \gamma_c + \varepsilon_{ijct} \tag{2}$$

where  $D_{ijc}$  is the incarceration sentence for individual  $i$  assigned to judge  $j$  in court-month  $c$ . Equation 1 is the first stage equation relating the endogenous incarceration decision to the judge severity instrument ( $z_{(i)j}$ ), a vector of controls ( $X_{ijc}$ ), and county-month fixed effects ( $\gamma_c$ ).<sup>6</sup> Equation 2 models the relationship between the outcome of interest,  $Y_{ijct}$ , and incarceration length,  $D_{ijc}$ . We will examine outcomes defined within  $t$  years of the date of filing of the case, such as earnings during the first year after the case was filed. Standard errors are clustered by defendant.

As is common in the literature, we construct  $z_{(i)j}$  using the judge’s average incarceration sentence in cases excluding individual  $i$  to break the mechanical correlation between the judge’s decision on a particular case and the instrument and ward against weak instrument concerns.<sup>7</sup> Under the standard assumptions of exogeneity, exclusion, and monotonicity, judge severity is a valid instrument. Norris et al. (2021b) discusses these assumptions and provides evidence that they hold in this sample. As a result,  $\beta$  can be interpreted as a weighted average effect of incarceration among compliers, the defendants for whom incarceration length

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<sup>6</sup>These fixed effects approximate randomization strata, since cases are randomly assigned to judges as they are filed in each court. There is one felony court in each county.

<sup>7</sup>In particular, we follow the literature by regressing sentence on court-month fixed effects, and then take the judge-level leave-out mean of the residual.

depends on judge assignment.<sup>8</sup>

Unlike in North Carolina, the Ohio data includes defendants who are not convicted. This has two implications. First, it means that under the standard IV assumptions, the reported treatment effects are a weighted average of the effect of incarceration relative to defendants who are convicted but not incarcerated, and defendants who are not even convicted. If convictions themselves have an effect on labor market and tax filing outcomes, this is an important distinction.

Second, including non-convicted defendants in the data raises the possibility of exclusion violations. If judges who are more likely to incarcerate defendants are also more likely to convict them, then the IV estimates will reflect the effect of both conviction and incarceration. One reassuring bit of evidence that this is not a serious concern in our setting comes from [Norris et al. \(2021b\)](#), who show using the same data that controlling for additional dimensions of judge behavior—in particular, conviction, probation, and fine-assignment propensity—does not substantively change the estimated effects of parental incarceration on child outcomes.<sup>9</sup> More broadly, conviction rates are very high in Ohio—about 90%—limiting the possible scope of exclusion violations.

### 3.2 Discontinuities in sentencing guidelines

Our research design in North Carolina exploits nonlinearities in the state’s felony sentencing guidelines. Leveraging the structure of sentencing guidelines is a common approach for obtaining plausibly exogenous variation in incarceration sentences and sanction severity more generally ([Kuziemko, 2013](#); [Hansen, 2015](#); [Franco et al., 2020](#); [Stevenson and Doleac, 2021](#)). Under North Carolina’s grid, felony offenses are grouped into 10 different classes based on severity. Offenders are assigned a criminal history score (referred to as “prior record points”) that aggregates prior misdemeanor and felony convictions into a integer-valued score. The guidelines then group individuals into prior record “levels” according to their total prior points and sets minimum sentences for each offense class and prior record level combination, or grid “cell.” Each grid cell also has a set of allowable sentence types: either incarceration (“active punishment”) or one of two types of probation. [Figure C.1](#) shows the relevant portion of the grid applied to most offenses in the sample.

Our research design focuses on incarceration outcomes at the boundaries of horizontally adjacent sentencing grid cells. The portion of the grid we consider has five offense classes

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<sup>8</sup>Under the weaker assumption of *average monotocity* from [Frandsen et al. \(2020\)](#), the estimates are still a convex combination of treatment effects, albeit with weights different from those in [Imbens and Angrist \(1994\)](#).

<sup>9</sup>Simultaneously instrumenting for multiple endogenous variables is consistent only under constant treatment effects, but finding that the results are consistent is still reassuring.

(rows) and six prior record levels (columns), with a total of 25 potential cell discontinuities. Each cell contains four to five values of prior points except for the cells in the first column. Our model includes separate linear slopes in prior points in each cell and allows for vertical jumps between horizontally adjacent cells. Since prior points are discrete, our regression specification can be interpreted as a parameterized RD design (Clark and Del Bono, 2016; Rose and Shem-Tov, 2021a) rather than a classic RD design with a continuous running variable.

Our preferred regression specification uses only the five cell boundaries where allowable punishment types change as excluded instruments, guaranteeing that our instruments shift incarceration sentences along both the extensive and intensive margins. The empirical specification stacks the variation from each discontinuity—one in each felony class—to estimate a single treatment effect and is expressed formally in the two-equation system below. The first stage, Equation 3, estimates incarceration length as a function of prior points, convicted charge severity, punishment discontinuities, and other covariates. Equation 4 models the relationship between an outcome measured within  $t$  years of case filing, incarceration sentences, and included controls.

$$D_i = \underbrace{\eta_{class_i}^1 + X_i' \alpha_1}_{\text{Baseline controls}} + \underbrace{\sum_k 1\{class_i = k\} \left[ \sum_l \beta_{lk}^1 1\{p_i \geq l\} (p_i - l + 0.5) + \psi_k^1 p_i \right]}_{\text{Linear slopes in prior points by class and level}} \quad (3)$$

$$+ \underbrace{\sum_{k,l \in punish} \xi_{kl} 1\{p_i \geq l\} 1\{class_i = k\}}_{\text{Punishment type discontinuities}} + \underbrace{\sum_{k,l \notin punish} \gamma_k^1 1\{p_i \geq l\} 1\{class_i = k\}}_{\text{Other discontinuities}} + \epsilon_i$$

$$Y_{it} = \beta D_i + \underbrace{\eta_{class_i}^2 + X_i' \alpha_2}_{\text{Baseline controls}} + \underbrace{\sum_k 1\{class_i = k\} \left[ \sum_l \beta_{lk}^2 1\{p_i \geq l\} (p_i - l + 0.5) + \psi_k^2 p_i \right]}_{\text{Linear slopes in prior points by class and level}} \quad (4)$$

$$+ \underbrace{\sum_{k,l \notin punish} \gamma_k^2 1\{p_i \geq l\} 1\{class_i = k\}}_{\text{Other discontinuities}} + e_{it}$$

where  $D_i$  is the length of defendant  $i$ 's incarceration sentence measured in months,  $\eta_{class_i}^1$  and  $\eta_{class_i}^2$  are row (i.e., offense class) specific intercepts, and  $p_i$  is prior points. The thresholds  $l$  refer to the prior record boundary levels in place at the time of the offense (e.g., five or nine points). When estimating the changes in slope on either side of each boundary (the

$1\{p_i \geq l\} (p_i - l + 0.5)$  terms), we recenter by  $l - 0.5$  so that we measure the discontinuity halfway between the boundary prior point values as implied by the linear fits on either side, rather than at either extreme.  $X_i$  includes demographic controls (e.g., age and gender) and our own measures of criminal history (e.g., fixed effects for prior convictions).

### 3.3 Aggregating effects across states

We estimate effects on all outcomes separately in Ohio and North Carolina using the designs described above. To construct a summary estimate of overall effects, we also present equally-weighted averages of the two effects and standard errors treating the two states' estimates as independent. Estimating over-identified models that pool data from both states to estimate a single effect of incarceration would produce averages of state-specific effects with weights related to the relative strengths of their respective first stages. Since it is unclear why this average is more interesting than others, we view the equally-weighted average a transparent and simple alternative.

### 3.4 Instrument validity

To serve as valid instruments, judge assignments and sentencing grid discontinuities must be independent of defendants' potential outcomes. [Norris et al. \(2021b\)](#) and [Rose and Shem-Tov \(2021a\)](#) provide evidence that this assumption holds in similar samples in North Carolina and Ohio by showing that the instruments are unrelated to a broad set of defendant characteristics. [Table B.7](#) provides further tests in the specific samples used in this paper. We focus on the characteristics and pre-treatment outcomes most relevant to our results here: incarceration history and labor market outcomes. These regressions include no additional controls beyond those necessary for the research design in each state, namely court-by-month fixed effects in Ohio and the linear slopes in prior criminal history points in North Carolina.

Panel A examines the two-stage least squares estimated "effects" of incarceration in North Carolina on these characteristics, averaged over the 2-4 years prior to case filing, while Panel B does the same for Ohio; Panel C reports the equally-weighted weighted average of the estimates from Panels A and B. A zero coefficient indicates no reduced-form correlation between the instruments and the characteristic. There is no statistically significant relationship with days incarcerated (Column 1) or a binary measure of incarceration for more than three-quarters of the year (Column 2), indicating that the instruments do not predict prior incarceration history. Columns 3-5 similarly find no relationship with employment, wages or the inverse hyperbolic sine of W-2 earnings. These measures are strongly correlated with later labor market outcomes, making them potent tests for instrument validity. Any cor-

relation between the instruments and unobserved defendant characteristics that affect our primary outcomes would likely be reflected in a relationship with pre-period earnings.

Finally, although the majority of defendants are successfully matched to IRS records, we also test whether the probability of being matched and the match quality is related to the instruments. Using the same approach as in [Table B.7](#), [Table B.2](#) finds no evidence of a relationship between match likelihood or match type and the instruments in either North Carolina or Ohio. We therefore view sub-setting to the matched sample in our primary analyses below as unlikely to introduce bias.

## 4 Results

This section presents our main estimates for the causal effects of incarceration on taxpayer behaviors. We begin by documenting the variation in exposure to incarceration caused by our instruments and then proceed to describe the effects of tax filing outcomes (1040 filing, EIC claiming, Schedule SE reporting) and on individual earnings reported to IRS (W-2 earnings, receipt of 1099 non-employee compensation).

### 4.1 First stage effects on incarceration

[Figure 1](#) presents our main estimates of how incarceration sentences dynamically affect exposure to prison. Panel A shows the estimated effect of a 12-month sentence on the number of days the defendant is in prison in the years before and after their case is filing. In both states, there is no impact prior to case filing, consistent with the instruments being uncorrelated with unobservable defendant characteristics. Incarceration sentences then generate sharp increases in imprisonment that spike in the year immediately following case filing, when many cases are resolved and sentencing occurs. Over time, differences converge to zero as those initially incarcerated are released and non-incarcerated defendants commit new crimes that are punished with prison time or have their probation revoked.

To help contextualize these treatment effects, Panel B plots the evolution of outcomes for those not initially incarcerated (control compliers). By construction, the non-incarcerated experience a drop in time in prison shortly after case is filed followed by a steady increase as these individuals re-offend or have their probation revoked. Thus while Panel A shows that there is no *effect* of an initial incarceration sentence on time spent in prison nine years later, mean incarceration is not zero: the average complier from both groups is incarcerated one to two months per year.

[Table 4](#) provides point estimates and standard errors for these effects on outcomes av-

eraged over the 5-9 years after case filing. While as shown in [Figure 1](#) there is no effect on days incarcerated or the likelihood that an individual is incarcerated for a large portion of the calendar year after year 5, a year-long sentence generates large differences in cumulative incarceration exposure due to the initial spike. The average effect of a 12 month sentence across both states is roughly 270 days, roughly twice the non-incarcerated complier mean. Our variation thus generates in an initial spike incarceration that subsequently dissipates, but also large differences in long-run prior exposure to prison.<sup>10</sup>

## 4.2 Effects on tax filing behavior

[Figure 2](#) reports the effect of incarceration on tax filing behavior. We report effects on filing a 1040 (Panel A), claiming any EIC (Panel C), and having any self-reported earnings reported on Schedule SE (Panel E). As in [Figure 1](#), the estimates are scaled to reflect the impact of a 12 month sentence  $t$  years after filing. Panels B, D, and F report the respective mean outcomes for compliers in the control group.

In the years following the court decision, incarcerated defendants see reductions in the likelihood of filing a 1040 in both states, with the largest reductions—of approximately 5 percentage points in each state—occurring in the first year following case filing. These are substantial reductions relative to the low mean filing rates in the control complier group, which are only 30-40% in OH and 20-30% percent in NC. In subsequent years the effects decline in magnitude, and are approximately zero by year four. [Table 5](#) reports estimates pooling the five to nine years after the case, years in which we no longer see any effects on contemporaneous incarceration. We find no evidence of longer-term reductions in filing after one’s sentence has ended.<sup>11</sup>

We next examine EIC filing in Panels C and D of [Figure 2](#). As we see in the control complier means, EIC claiming is between 15-20% in the years prior to the charge. Although the point estimates are noisy, EIC filing also appears to fall during the first three years following incarceration. One possible reason for this drop is that those incarcerated for more than six months out of the year are disqualified from claiming dependents under the EIC, limiting their potential benefits. While there is a short run decline in EIC claiming during the years when there are large impacts on days incarcerated, we find no longer term effects on

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<sup>10</sup>As discussed in [Section A.1](#), these estimates reflect “average causal responses” across different doses of incarceration. [Figure C.8](#) plots the weights on doses for both states. [Figure C.2](#) through [Figure C.6](#) plot the reduced form variation underlying these estimates for North Carolina, while [Figure C.7](#) does the same for Ohio.

<sup>11</sup>In our baseline specification we find slight *positive* long-run effects on filing; however, these positive effects disappear when we examine specifications with additional controls in [Appendix Table B.10](#). The short run negative effects, by contrast, are very robust to alternative specifications.

EIC take-up in the figure or in [Table 5](#). When we examine household outcomes in [Section 6](#), we will follow children to see if the child is more likely to be claimed by a co-parent.

Panels E and F of [Figure 2](#) show the effects on filing any self employment income on Schedule SE. Although our results are imprecisely estimated, in the years following the court case, incarceration decreases self employment filing by 1-2 percentage points. This effect is substantial when compared to the control complier means—on average less than 5% report self employment income (about one-sixth of 1040 filers) in the years preceding case filing. Again, we find no evidence of a longer-term effect in the propensity to report self-employment earnings on Form 1040 Schedule SE.

To capture the total impact of incarceration over time—incorporating both short-run incapacitation effects and longer-term scarring effects—[Table 6](#) presents estimates of the *cumulative* impacts of incarceration on filing across the five years after a case is filed. Averaging across both states, we find that a 12 months of incarceration results in 0.15 fewer 1040s filed over five years, roughly \$6,000 lower reported adjusted gross income. In practice, there is no significant effect on federal income tax liability before refundable credits. However, we do find that a 12 months of incarceration leads to \$300 less in EIC claimed in the five years after the case is filed.

### 4.3 Effects on individual earnings reported to IRS

In the previous subsection, we examined tax-filing behavior and found that tax-filing measures fall in the immediate years following incarceration, but later return to their previous levels. The short-run decrease in filing rates could reflect either real declines in earnings or changes in compliance. To shed light on this, we now turn to dynamic effects on labor earnings reported by firms on information return. Panels A and B of [Figure 3](#) report effects and untreated complier means for an indicator for having any W-2 wage income, while Panels C and D report effects on having any nonemployee compensation reported on a 1099. Importantly, these measures of earnings do not depend on filing, which may be changing in response to incarceration. As above, we continue to scale the coefficients to reflect the impact of a 12-month sentence as of  $t$  years after filing.

The results in [Figure 2](#) show that changes in the propensity to file after incarceration are reflective of impacts on individuals' firm-reported earnings. In the first year after case filing, when treated individuals are most likely to be incarcerated there is a sharp reduction in W-2 employment in both states of about 10 percentage points, roughly a 20–30 percent decline over the control complier group mean (see [Table B.3](#) for the point estimates, standard errors and control complier means). However, there is no effect on in employment four or more



years after filing. We find a similar pattern of effects for the total W-2 earnings amount. Importantly, while we find no long-run scarring effects of incarceration, the initial case filing is associated with large and persistent reductions in the background probability of being employed in the control and treatment groups alike.

We also find effects on 1099-reported non-employee compensation that mirror the effects on Schedule SE reporting in Figure 2, suggesting that the changes we observed in self-reported self-employment reflect real changes in work behavior and not just reporting responses. While effects are smaller for 1099 income than W-2 income in absolute terms, mean rates of 1099 income receipt among untreated compliers are also significantly lower. These limited long-run effects are again consistent with effects of incarceration primarily arising due to incapacitation rather than scarring.

Table 7 summarizes the long run effects on firm-reported earnings 5-9 years after the case filing, when we no longer observe effects on days incarcerated. Though some long-run point estimate suggest positive positive effects of incarceration, the confidence intervals usually include zero. The standard errors in Column 2, for example, can rule out negative effects on total W-2 earnings as large as 5% of the control mean with 95% confidence. As shown in Table B.10, estimates varying the set of demographic and prior-earnings controls included show similar patterns, with no robust evidence of substantial scarring impacts. Table 8 shows that the short-run incapacitation effects of 12 months incarcerated result in a cumulative loss of about \$3,300 in W-2 earnings and \$250 in 1099 earnings when averaged across both states, each about 10-15% of the control compliers' means. Standard errors on cumulative outcomes are substantially larger, however, due to the substantial dispersion in these outcomes; for example we can only marginally reject zero effect on cumulative W-2 earnings.

The baseline results on W-2 earnings may mask other changes in labor market status. A potentially important mediator of earnings is movement across industries of employment after incarceration. In Figure C.16, we explore how incarceration impacts flows across industries reported by primary W-2 payers (if present) broken out by whether the defendant was incarcerated.<sup>12</sup> To do so, we divide employers into six mutually exclusive categories: temporary employment; food service; retail; education and health; manufacturing, construction and transportation; and professional jobs.<sup>13</sup> We include one additional category for unknown industries (sometimes employers enter a non-assigned NAICS code) and treat the absence of a W-2 as a separate category. For each individual, we measure their pre-court industry by taking their most common industry over periods -4 to -1, assigning them to unemployment

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<sup>12</sup>Table B.16 contains the exact counts.

<sup>13</sup>Temporary employment includes NAICS codes 56, food service 71 and 72, retail 42, 44, 45, 51, 81, education and health 61 and 62, manufacturing, construction and transportation 11, 21, 22, 23, 31, 32, 33, 48 and 49, and professional jobs 52, 53, 54, and 55.

only if their were unemployed in each of the four years. We do similarly with periods 5 to 9 to measure their post-court industry. Several striking patterns emerge. First, a large number of defendants transition to employment in temporary employment industries following their court date, and this is particularly true for incarcerated defendants. Second, there is substantial movement out of manufacturing and construction into the lower-paid temporary, food services and retail sectors, consistent with occupational downgrading. Third, there is substantial off-axis movement between these three lower-paid sectors, consistent with low levels of labor force attachment.

#### 4.4 Accounting for differential mortality and mobility

Criminal defendants might potentially be at higher risk of harm and death than the average individual, and therefore we examine whether mortality might potentially cause censoring to our sample. [Table B.9](#) reports 2SLS estimates of the effects of incarceration on mortality as well as migration. We see that incarceration *reduces* the likelihood of mortality in the years immediately following the court case, although the results are not quite significant at the 5% level.<sup>14</sup> OLS estimate show similar effects on mortality (see [Table B.11](#)). Moreover, we also see that incarceration increases the likelihood of having any W-2 wages or filing 1040 by more than it increases the likelihood of having a W-2 or 1040 with the same state address, indicating at least some migration responses.

#### 4.5 Discussion

We find no evidence that incarceration has long-term scarring effects on taxpayer earnings or reporting after one’s sentence is complete. In [Appendix D](#), we show these conclusions are robust to alternative specifications and alternative outcome definitions. When interpreting this result, it is important to remember that this population has extremely low labor market attachment and low tax filing rates prior to the focal criminal justice event, as shown in [Figure 3](#). In the period immediately prior to sentencing, slightly more than half of non-incarcerated compliers have any W-2 earnings in Ohio, while less than 40% do in North Carolina; mean earnings are around \$5,000 in Ohio and \$3,000 in North Carolina. Over the post-sentencing period, there is no growth in labor force participation or filing propensities in either sample. Although there is growth in average earnings in North Carolina, the absolute level is still low—with an average of around \$4,000—leaving little room for incarceration to

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<sup>14</sup>This is consistent with [Norris et al. \(2021a\)](#), which finds that mortality increases at the time of pre-scheduled releases from prison.

reduce earnings further.<sup>15</sup>

These findings are also less surprising in light of the corresponding OLS estimates in [Table B.6](#). Given that the incarcerated are negatively selected relative to the non-incarcerated, the OLS estimates are plausibly lower bounds on the causal effect of incarceration. Although the incarcerated have consistently worse post-sentencing outcomes than the non-incarcerated, these differences are economically small. These differences shrink even further with the addition of controls, dropping to 0.9% and 2.4% ([Table D.40](#)). These estimates reinforce the limited role for labor market scarring from incarceration found in the main 2SLS estimates.

These findings suggest that a single incarceration event is not a trigger that pushes individuals out of the formal labor market, nor does it have long-run impacts on tax filing behavior or observable indicators of compliance. Rather, the observed low labor market attachment is more likely due to either characteristics of the individuals (such as low rates of formal education that reduce labor market opportunities), past events, or other treatments of the criminal justice system such as conviction. It could also still be that the treatment effect of incarceration differs for individuals with greater prior labor market attachment, who are a minority of the incarcerated—[Section 5](#) will look at heterogeneity with respect to individual characteristics to delve further into this possibility.

## 5 Subgroup Analysis

Despite our baseline results, it is possible that key sub-populations experience larger effects that are not captured in the full-sample results. In this section we examine heterogeneity in the effects of incarceration across three important dimensions that might potentially mediate the impacts of incarceration: the strength of prior attachment to the legal labor market, criminal history, and demographic characteristics. Results are reported in [Figure 4](#) and [Tables 9](#), [B.14](#), and [B.15](#). We show robustness of results to alternative specifications in [Appendix D](#).

### 5.1 Effects on groups with greater labor force attachment

In the previous section, we documented that the effects of incarceration operate mainly through incapacitation. If this is indeed the case, we would expect to see large impacts, at least in the short-run, for individuals who are more attached to the labor market (e.g., employed, have relatively high earnings). Further, the potential for longer-term scarring

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<sup>15</sup>Average earnings are flat in Ohio despite the drop in labor force participation, consistent with increased unemployment for some fraction of the population and some wage growth among those remaining in the labor market.

is larger among those with stonger prior attachment to the labor force. In this section, we examine heterogeneity in the effects of incarceration based on employment and earning histories prior to the focal criminal justice event.

Figure 4 divides the sample into individuals with lower and higher labor force attachment, defined as having employment for two of the years within the range of 2-4 years prior to the charge filing date.<sup>16</sup> Panel B shows the effect on filing behavior. Although the first-year drop in 1040 filing is slightly larger for the previously-employed, in subsequent years the effects are nearly identical for both groups. By the fourth year following case filing, the effects have dissipated for each group. Since there are still effects on days incarcerated in this year—of about 25 days for each group (Panel A)—this suggests that the marginal days incarcerated in the medium-term are not affecting filing behavior.

Panel C studies the effects on receiving a W-2. The differences between the groups are more pronounced for this outcome; for years one through four the effect of incarceration is substantially larger for the previously employed group. For example, the effect in the first year is more than 10 percentage points for the previously employed, as compared to roughly -7 percentage points for the previously unemployed. Finally, Panel D shows a substantial difference in the effect on reported W-2 earnings, with an estimated reduction of more than \$1,500 for the more attached group compared to a drop of \$200 for the less attached population (Panel D). These findings are most consistent with incapacitation being the driving force of our findings in Figure 3 with the less attached group being more likely to earn low wages or remained employed for shorter periods such that incapacitation has less of an effect.<sup>17</sup> This remains true when we consider alternative definitions of attachment, including earning more than the full-time minimum wage amount in the years before filing (Table 9, Figures C.10, C.11 and C.12).

Table 9 examines long-run effects for additional outcomes, including any 1099 non-employee compensation, EIC claiming and SE filing. In each case, we do not see any evidence of long-run differences by pre-period labor market attachment.

## 5.2 Effects on people with different criminal backgrounds

Figure C.13 conducts a similar exercise to the ones above but splits the sample based on whether the defendant was previously incarcerated.<sup>18</sup> Individuals who have already been

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<sup>16</sup>Since the dynamics are similar in North Carolina and Ohio, we combine the estimates for greater precision.

<sup>17</sup>Table 9, Table D.6 and Table D.8 show substantially different control complier means for earnings across the two groups; even nine years following the case the attached group earns \$3,700 and \$5,300 more in North Carolina and Ohio, respectively.

<sup>18</sup>Figures C.14 and C.15 display the effects for North Carolina and Ohio, respectively.

incarcerated may plausibly suffer fewer repercussions since that was already part of their resume and background, such as potentially having built “criminal capital” behind bars (e.g. Bayer et al. (2009)). Results are similar to those for labor market attachment, where those without a previous history of incarceration suffer a larger initial drop in employment and slower recovery of wage earnings than those with a history. However, within five years, the labor market outcomes have fully recovered, and point estimates are statistically indistinguishable from the previously incarcerated. Similarly, we do not see any long run differences in other key outcomes in Table 9.

### 5.3 Effects on different demographic groups

While the previous section examined how the effects of incarceration vary depending on past behaviors of the defendant, this section focuses on demographic attributes: gender and race. As shown in Table 9, we see that all groups have limited, if any, scarring effects in the long-run. However, there is variation in the effects of incarceration on cumulative measures. For example, the effect on cumulative earnings is more negative for males relative to females, which is consistent with the fact that they have higher wage earnings if not incarcerated, indicating the incapacitation effect will be larger for them.<sup>19</sup>

### 5.4 Comparability to populations in previous studies

Our results indicate substantially less scarring than typically found in experimental correspondence studies (Pager, 2003; Agan and Starr, 2017). There are a number of possible reasons for these differences, including (1) the experimental correspondence studies estimate the effect of incarceration relative no conviction while we estimate the effect of incarceration relative to conviction, (2) the differences in callback rates uncovered in the experimental correspondence studies do not cause differences in eventual employment because of compensating behavior by defendants, and (3) the types of defendants in the experimental correspondence studies differ from the broader sample of defendants. In this section we restrict our sample to make it as similar as possible to the experimental correspondence study samples, and find similar overall results.

Tables B.12 and B.13 presents the effects of incarceration on outcomes for the experimental correspondence and overall samples (and Figure C.17 reports the dynamic estimates). Since the experimental correspondence sample is approximately one twentieth of the size of

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<sup>19</sup>To show the robustness of the estimates in Tables B.14, and B.15, we also include versions of these tables that include details controls for criminal history, demographics, and labor market outcome prior to the criminal justice focal event (Tables D.14 and D.15).

the overall sample, the standard errors are substantially larger. However, the patterns are substantively similar: a decline in employment in the years after the case followed by (if anything) long-term improvements in labor market outcomes. Indeed, the long-term point estimates are slightly more positive than for the overall sample, although we cannot reject equivalence. We conclude that the differences between our results and the experimental correspondence studies are unlikely to be caused by differences in sample composition. Instead, the negative effects observed in the experimental correspondence studies are likely due to the slightly different treatment (including the conviction) or the differences in outcomes (a callback, rather than employment).

## 6 Household spillovers

In this section, we examine the effects of incarceration on household tax filing behavior, such as whether a child is claimed on Schedule EIC *by anyone*, and whether a co-parent changes their employment status. By studying co-parents and children, we can better contextualize the full impacts of incarceration on the tax system. For instance, a co-parent may enter formal W-2 employment to make up for the loss of spousal earnings, or even exit due to increased childcare responsibilities. As shown above, defendants’ own 1040 filing and EIC claiming falls temporarily after their case is filed due to incarceration. By following children, we can see if that child is later claimed by anyone, such as the co-parent.

Following [Norris et al. \(2021a\)](#), we define a “spouse” or “co-parent” as someone who has a joint child with the defendant prior to filing of the focal case. [Table 10](#) reports effects of incarceration on these individuals for several key outcomes. Each regression is estimated at the defendant level in the sample of defendants with any co-parent, which accounts for approximately 28% of the sample in both North Carolina and Ohio, except for the final column, which is estimated in the sample of all defendants. If a defendant has multiple co-parents, we average their outcomes so that all defendants receive equal weight.

In both Ohio and North Carolina, we find that co-parents’ W-2 employment and earnings do not increase five to nine years post filing. Cumulative impacts as of five years post-filing suggest small negative effects. Overall, therefore, there is limited evidence that co-parents change their behavior in response to incarceration.<sup>20</sup> We also do not see any long-run differences in the number of, or cumulative number of EIC dependents claimed (Columns 5 and 6), suggesting children no longer being claimed by convicted offenders are being claimed

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<sup>20</sup>[Table B.8](#) reports placebo checks that our instrument is not correlated with the spouse’s outcomes in the years before case filing.

by co-parents or other relatives.<sup>21</sup>

One possible explanation is that co-parents activity was already elevated relative to defendants, even in the absence of incarceration. [Table 10](#) reveals that mean rates of receiving any W-2 for the co-parents of non-incarcerated compliers are nearly twice as high as defendants' rates shown in [Table 7](#). Total W-2 earnings are nearly three times as high. If co-parents are already significantly more likely than defendants to be participating in the labor market even in the absence of incarceration, they may have limited room to increase when their co-parent receives a prison sentence.

It is also possible that most defendants do not interact economically with their co-parents, effectively acting as separate decision-makers. We do not find any long-run change in the probability of married-filing jointly, suggesting that incarceration does not break up families in the long run (Column 7). It could be that the co-parents respond by raising funds through informal labor markets that would not generate W-2 income, or by receiving more public assistance.<sup>22</sup> Finally, labor market frictions and child care difficulties can also play a role if the spouses of criminal defendants find it difficult to increase their hours of work.

## 7 Conclusion

Our analysis finds that while incarceration does reduce earnings reported to the IRS and tax filing rates during the period of incapacitation, it has only limited scarring effects on long-run behavior. These findings are similar across study locations and research designs, as well as within different sub-populations such as divisions by race or sex. The low amount of overall scarring we find largely reflects the low rates of tax filing and prior attachment to the formal labor force among criminal defendants.

Our results contrast with [Mueller-Smith \(2015\)](#), who finds sharply negative effects of incarceration in Houston, but are more consistent with [Kling \(2006\)](#) and [Harding et al. \(2018\)](#), who find limited longer-run effects of incarceration on employment in Michigan and Florida. Our results are also consistent with [Looney and Turner \(2018\)](#), which is the only past study using IRS records. A key advantage of our study is the use of data from multiple states and multiple research designs that identify treatment effects of incarceration across a broader range of populations. We also examine alternative work, such as self-employment and inde-

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<sup>21</sup>[Table 10](#) also reports ordinary least squares estimates of the effect of incarceration on co-parents' outcomes. These estimates suggest economically small impacts .

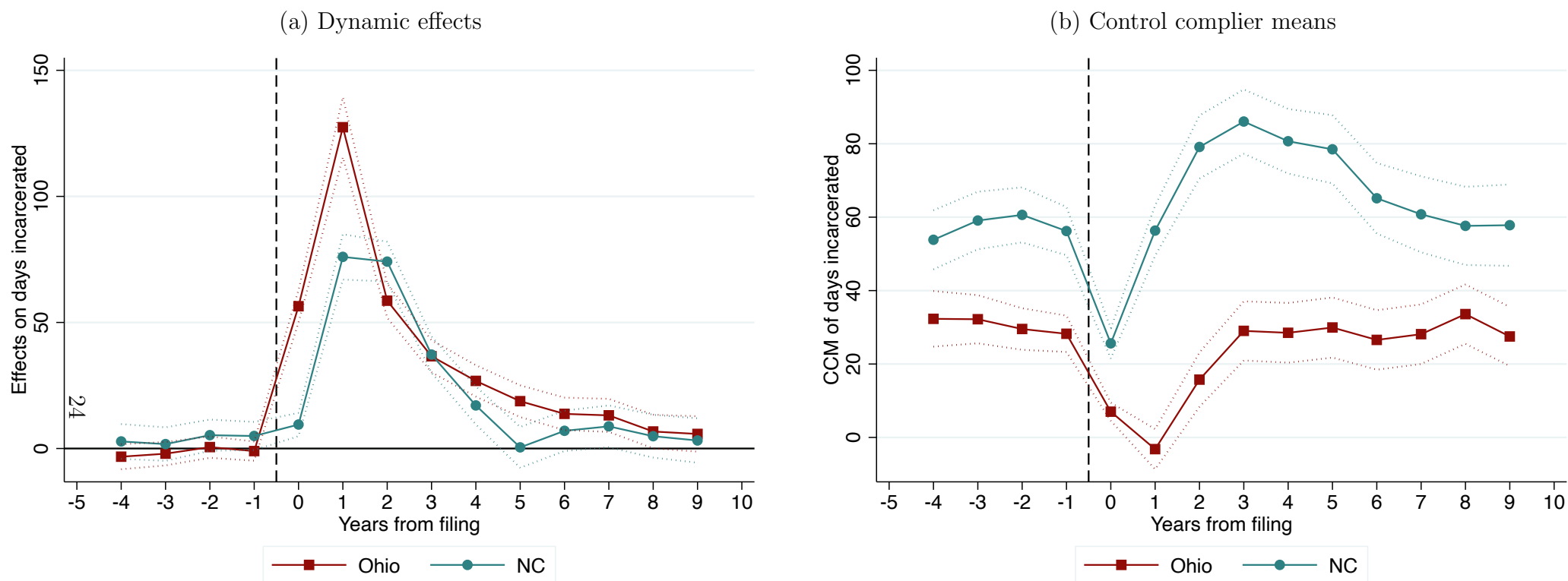
<sup>22</sup>[Norris et al. \(2021b\)](#) study the effect of incarceration on two measures of spouses' housing consumption: whether the spouse is evicted, and the average poverty level of their neighborhood of residence. They find no effect of incarceration on spouses' housing consumption, consistent with no informal earnings response in either.

pendent contracting. Our results highlight the potential differences in the treatment effect of incarceration across localities, yet given the consistency across two relatively dissimilar states, suggest that the effects on tax and labor market outcomes are limited due to severe lack of attachment to the legal labor market prior to the focal criminal justice event.



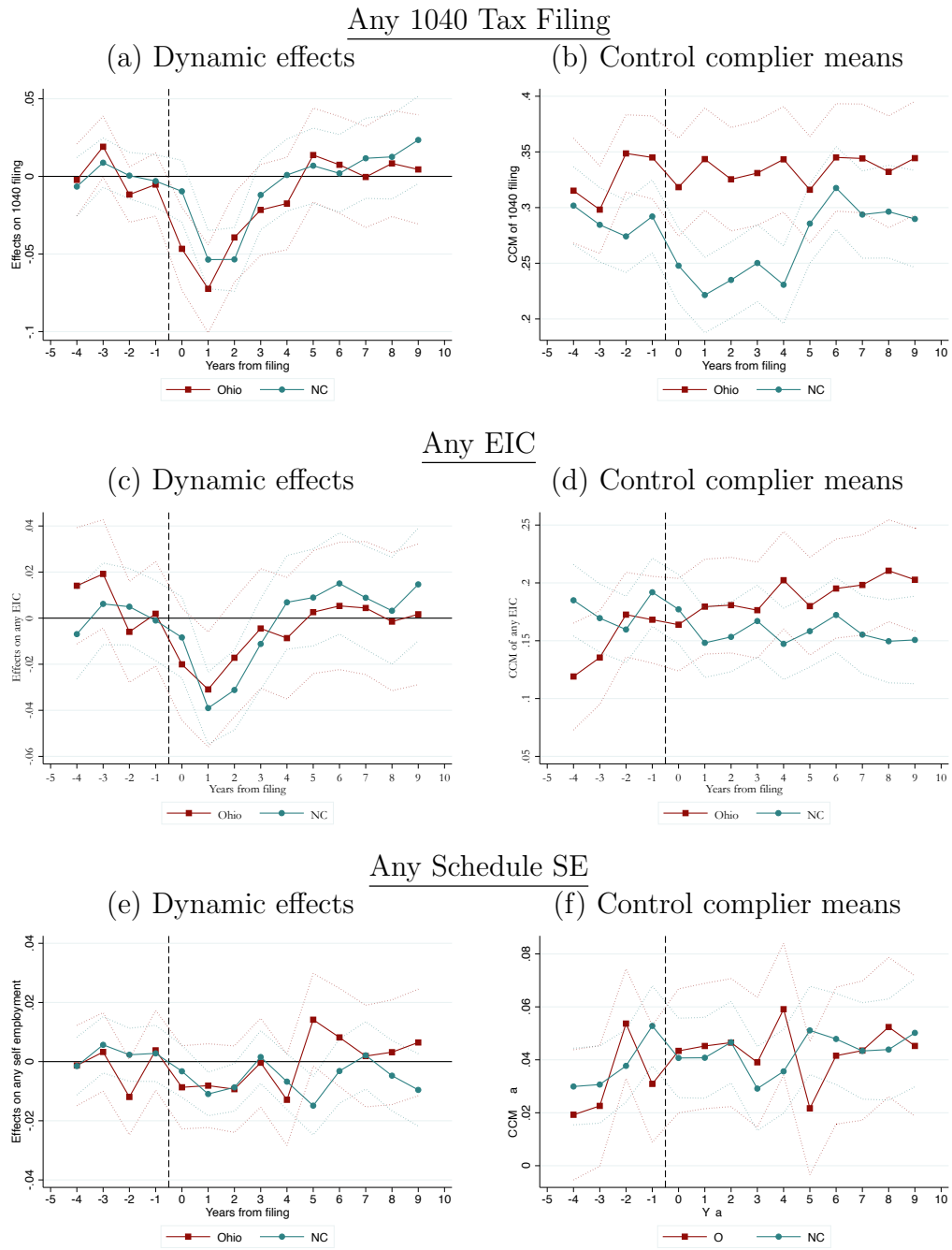
# Figures

Figure 1: Effects on days incarcerated



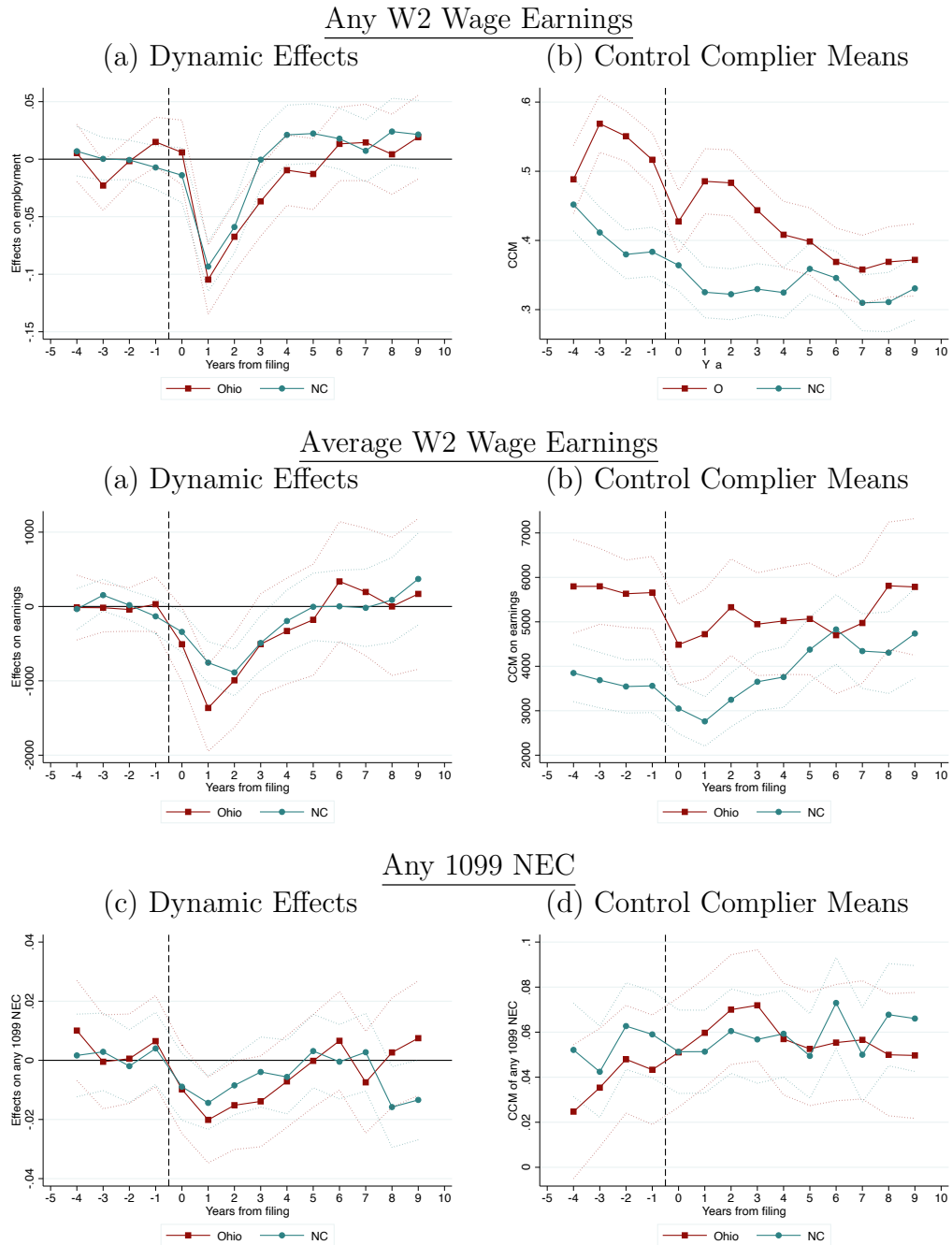
Notes: Panel (a) “Dynamic effects” reports two-stage least squares estimates of the dynamic effect of the indicated outcome (in this case days of incarceration). Effects are estimated in the year relative to filing date indicated by the x-axis. All coefficients are scaled to represent the effect of 12 months of incarceration. 95% confidence intervals based on standard errors clustered by defendant are shown in dotted lines. Panel (b) “Control complier means” present compliers’ estimated mean potential outcomes (in this case days incarcerated) when sentenced to zero months of incarceration on the charge. The compliers considered are individuals shifted from zero to some positive quantity of incarceration by the instruments in each state and are calculated as detailed in Section A.1. Untreated potential outcome means for compliers shifted from some incarceration to more are not identified. Means are estimated in the year relative to filing date indicated by the x-axis. 95% confidence intervals based on standard errors clustered by defendant are shown in dotted lines.

Figure 2: Effects on self-reported tax filing outcomes



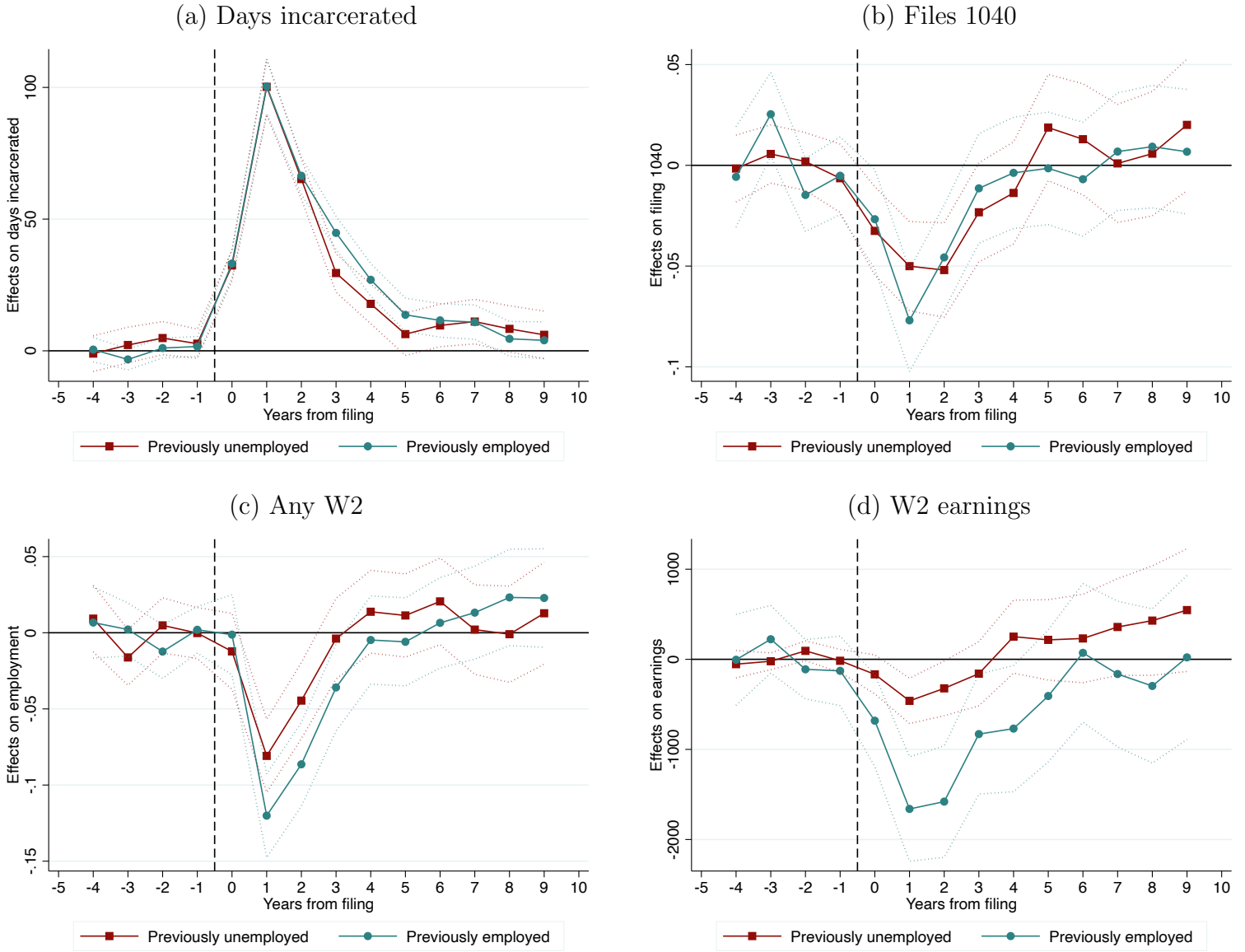
Notes: See notes for Figure 1

Figure 3: Effects on firm-reported earnings measures



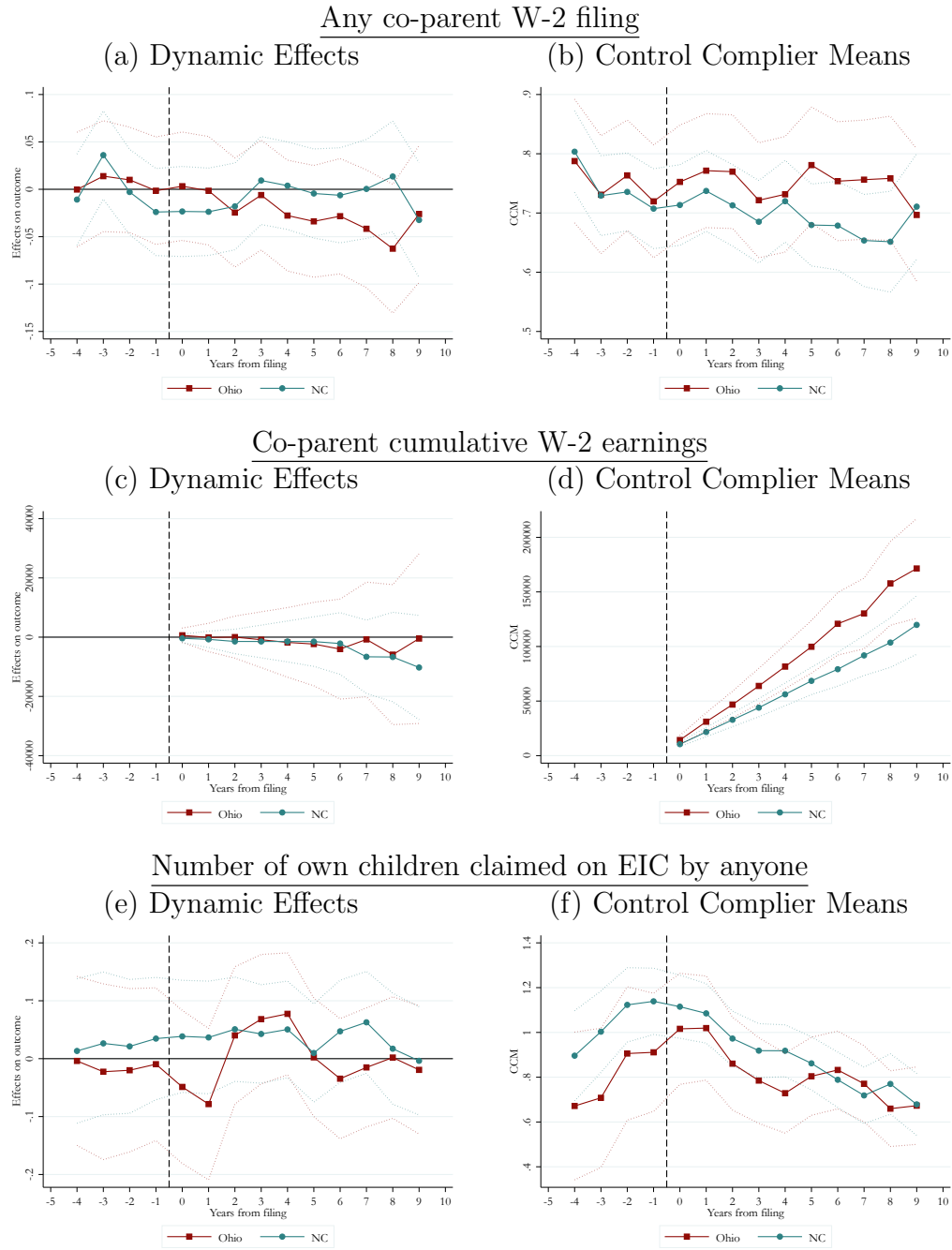
Notes: See notes for Figure 1.

Figure 4: Effects of incarceration by previous employment



*Notes:* These figures present two-stage least squares estimates of the dynamic effect of incarceration on days of incarceration, an indicator for any W2 earnings, and total W2 earnings separately for defendants who were employed at least two out of the three years in the two to four years prior to case filing. Each estimate is the equally-weighted average of effects in Ohio and North Carolina estimated separately. Effects are estimated in the year relative to filing date indicated by the x-axis. All coefficients are scaled to represent the effect of 12 months of incarceration. 95% confidence intervals based on standard errors clustered by defendant are shown in dotted lines.

Figure 5: Effects on spouses and co-filers



Notes: See notes for Figure 1.

# Tables

Table 1: Defendant characteristics

	(1)	(2)	(3)	(4)	(5)	(6)
	A. North Carolina			B. Ohio		
	All	Incarcerated	Not incarcerated	All	Incarcerated	Not incarcerated
Demographics						
Age at filing	30.25 (8.70)	31.03 (8.60)	29.82 (8.70)	31.11 (9.00)	31.30 (8.90)	31.03 (9.10)
Male	0.830	0.907	0.788	0.798	0.886	0.764
Black	0.507	0.544	0.487	0.594	0.645	0.575
Previous charges						
Share > 0	0.724	0.864	0.647	0.700	0.768	0.674
Mean	3.13	3.83	2.63	5.79	7.35	5.12
SD	2.20	2.40	1.90	6.40	7.30	5.80
Median	3.00	3.00	2.00	4.00	5.00	3.00
Previous incarceration spells						
Share > 0	0.467	0.701	0.338	0.279	0.446	0.215
Mean	2.18	2.52	1.79	2.39	2.68	2.18
SD	1.50	1.60	1.20	2.20	2.40	2.00
Median	2.00	2.00	1.00	2.00	2.00	1.00
Treatment						
Months of incarceration	17.24 (18.70)	17.24 (18.70)	-	22.10 (33.30)	22.10 (33.30)	-
N	306,254	108,591	197,663	158,665	43,845	114,820

*Notes:* This table presents summary statistics for demographic, criminal history, and incarceration treatment variables for the North Carolina and Ohio analysis samples. Each statistic is shown for the full sample and those sentenced to some vs. zero months of incarceration. Statistics for demographic and treatment variables show means and standard deviations (in parentheses). Criminal history variables present the statistic listed in the row. Percentiles are rounded to the nearest \$10 for confidentiality.

Table 2: Tax filing summary statistics

	(1)	(2)	(3)	(4)	(5)	(6)
	A. North Carolina			B. Ohio		
	All	Incarcerated	Not incarcerated	All	Incarcerated	Not incarcerated
Adjusted gross income						
1{> 0}	0.361	0.287	0.401	0.390	0.305	0.422
Mean if > 0	16,113	14,991	16,599	18,131	17,135	18,425
S.D. if > 0	18,170	19,090	17,730	22,020	24,050	21,380
50th pctl	11,100	10,410	11,420	11,580	10,730	11,850
90th pctl if > 0	34,620	31,820	35,790	41,230	39,270	41,790
Federal income tax liability before refundable credits						
1{> 0}	0.158	0.121	0.179	0.185	0.140	0.202
Mean if > 0	1,697	1,638	1,720	2,237	2,267	2,230
S.D. if > 0	2,540	2,490	2,560	3,680	3,850	3,630
50th pctl if > 0	960	940	970	1,200	1,180	1,200
90th pctl if > 0	3,750	3,550	3,840	5,000	5,100	4,980
EIC amount						
1{> 0}	0.187	0.154	0.205	0.189	0.148	0.204
Mean if > 0	2,176	2,007	2,252	2,178	1,988	2,235
S.D. if > 0	1,560	1,590	1,540	1,620	1,620	1,610
50th pctl if > 0	2,220	1,900	2,330	2,140	1,810	2,230
90th pctl if > 0	4,370	4,270	4,410	4,570	4,370	4,620
Mean EIC dependents	1.431	1.412	1.438	1.508	1.474	1.517
Filed 1040	0.366	0.291	0.406	0.396	0.309	0.429
Any Schedule C	0.046	0.037	0.052	0.048	0.035	0.053
Any W2 or 1040	0.582	0.513	0.620	0.620	0.542	0.650
Any W2 or 1040 in state	0.466	0.398	0.504	0.538	0.455	0.570
N	306,254	108,591	197,663	158,665	43,845	114,820

Notes: See notes for Table 1.

Table 3: Individual earnings summary statistics

	(1)	(2)	(3)	(4)	(5)	(6)
	A. North Carolina			B. Ohio		
	All	Incarcerated	Not incarcerated	All	Incarcerated	Not incarcerated
W2 wages						
1{> 0}	0.531	0.467	0.567	0.571	0.500	0.598
Mean if > 0	8,755	7,555	9,342	10,056	8,418	10,616
S.D. if > 0	10,920	10,040	11,270	13,430	12,520	13,680
50th pctl if > 0	4,690	3,820	5,180	4,780	3,500	5,300
90th pctl if > 0	22,590	19,540	23,920	26,940	22,760	28,120
1{> 0} & non-filer	0.217	0.222	0.214	0.225	0.232	0.222
Schedule SE self-employment earnings						
1{> 0}	0.035	0.029	0.038	0.037	0.027	0.041
Mean if > 0	9,448	9,471	9,437	11,147	10,916	11,207
S.D. if > 0	7,620	7,440	7,690	10,180	10,460	10,110
50th pctl if > 0	8,640	8,850	8,560	9,980	9,800	10,020
90th pctl if > 0	16,290	15,930	16,450	18,130	17,740	18,230
1099-MISC nonemployee compensation						
1{> 0}	0.061	0.056	0.064	0.055	0.046	0.059
Mean if > 0	9,108	8,452	9,436	9,854	8,854	10,159
S.D. if > 0	16,110	15,150	16,560	16,950	15,700	17,310
50th pctl if > 0	3,870	3,680	3,950	3,840	3,500	3,940
90th pctl if > 0	20,150	18,380	21,090	23,960	20,250	24,860
1{> 0} & non-filer	0.031	0.032	0.031	0.026	0.023	0.027
Any Schedule SE or 1099 NEC	0.082	0.073	0.086	0.079	0.062	0.085
Co-parents						
Any W-2	0.737	0.736	0.738	0.768	0.774	0.766
Mean W-2 if > 0	13,466	12,284	14,031	16,692	15,673	17,011
Top 2-digit NAICS of main W-2 payers (shares cond. on NAICS present)						
Agriculture, forestry, hunting, fishing (11)	0.021	0.025	0.020	0.002	0.003	0.002
Construction (23)	0.112	0.130	0.103	0.057	0.059	0.057
Manufacturing (31-33)	0.098	0.104	0.095	0.079	0.086	0.076
Wholesale trade (42)	0.023	0.022	0.023	0.023	0.022	0.023
Retail trade (44-45)	0.105	0.087	0.113	0.105	0.088	0.110
Transport / warehousing (48-49)	0.021	0.020	0.021	0.024	0.020	0.025
Admin / waste mgmt (56)	0.150	0.168	0.141	0.190	0.215	0.182
Accommodation / food (72)	0.197	0.190	0.200	0.183	0.186	0.182
All other	0.274	0.254	0.284	0.337	0.321	0.343
N	306,254	108,591	197,663	158,665	43,845	114,820

Notes: See notes for Table 1.



Table 4: Long-run effects on incarceration exposure

	(1)	(2)	(3)
	Days / year	> 270 days	Cumulative days
Effect of 12 month sentence			
A. North Carolina ( $N = 306,254$ )			
5-9 years post-filing	3.20 (3.31) [67.70]	-0.001 (0.008) [0.142]	212.57 (9.82) [399.55]
B. Ohio ( $N = 158,665$ )			
5-9 years post-filing	13.50 (2.52) [26.67]	0.030 (0.006) [0.065]	323.25 (14.25) [106.03]
C. Average			
5-9 years post-filing	8.35 (2.08) [47.18]	0.014 (0.005) [0.104]	267.91 (8.65) [252.79]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration outcomes. Panel A reports effects for North Carolina. Panel B reports effects for Ohio. And Panel C reports equally-weighted average effects. All coefficients are scaled to represent the effect of 12 months of incarceration. Column 1 reports effects on days incarcerated in the calendar year. Column 2 reports effects on an indicator for being incarcerated for more than 270 days in the calendar year. Column 3 reports effects on cumulative incarceration since the year of sentencing. All effects estimated pooling five to nine years relative to initial filing date except for Column 3, which is estimated as of five years post-filing. Standard errors clustered by defendant are shown in parentheses. Estimated untreated mean outcomes for compliers shifted from zero to some incarceration are shown in square brackets and calculated as detailed in Section A.1.

Table 5: Effects on self-reported tax filing outcomes

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Filed 1040	Adj. Gross	IITBRC	Any S. SE	Total S. SE	Any EIC	EIC	EIC deps.
Effect of 12 month sentence								
A. North Carolina ( $N = 306,254$ )								
5-9 years post-filing	0.011 (0.010) [0.340]	-305.481 (292.91) [5643.03]	-38.936 (26.66) [287.98]	-0.005 (0.004) [0.045]	-63.570 (53.83) [449.41]	0.012 (0.008) [0.156]	-6.278 (24.79) [314.09]	-0.006 (0.01) [0.14]
B. Ohio ( $N = 158,665$ )								
5-9 years post-filing	0.013 (0.012) [0.345]	-60.124 (560.07) [7579.12]	-19.303 (73.10) [544.10]	0.008 (0.006) [0.038]	57.157 (114.84) [494.07]	0.004 (0.010) [0.199]	25.023 (38.23) [463.07]	0.001 (0.02) [0.22]
C. Average								
5-9 years post-filing	0.012 (0.008) [0.342]	-182.802 (316.02) [6611.08]	-29.120 (38.90) [416.04]	0.001 (0.004) [0.041]	-3.206 (63.42) [471.74]	0.008 (0.007) [0.178]	9.372 (22.78) [388.58]	-0.002 (0.01) [0.18]

*Notes:* This table presents two-stage least squares estimates of the effect of incarceration on self-reported tax-filing outcomes. Panel A reports effects for North Carolina. Panel B reports effects for Ohio. And Panel C reports equally-weighted average effects. All coefficients are scaled to represent the effect of 12 months of incarceration. All effects are estimated pooling the five to nine years post filing. Standard errors clustered by defendant are shown in parentheses. Estimated untreated mean outcomes for compliers shifted from zero to some incarceration are shown in square brackets and calculated as detailed in Section A.1. IITBRC is individual income tax before refundable credits.

Table 6: Cumulative effects on self-reported tax filing outcomes

	(1)	(2)	(3)	(4)	(5)
	Filed 1040	Adj. Gross	IITBRC	Cumu. S SE	EIC
Effect of 12 month sentence					
	A. North Carolina ( $N = 306,254$ )				
5 years post-filing	-0.121 (0.040) [1.471]	-3875.554 (1283.51) [25400.40]	-227.691 (133.16) [1555.05]	-308.489 (246.03) [2531.94]	-288.125 (105.79) [1924.41]
	B. Ohio ( $N = 158,665$ )				
5 years post-filing	-0.184 (0.060) [1.978]	-7465.114 (2629.99) [44205.82]	-704.845 (344.37) [3194.42]	-255.669 (520.95) [2742.51]	-293.366 (189.25) [2454.90]
	C. Average				
5 years post-filing	-0.152 (0.036) [1.724]	-5670.334 (1463.24) [34803.11]	-466.268 (184.61) [2374.74]	-282.079 (288.06) [2637.23]	-290.745 (108.40) [2189.65]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on cumulative tax filing outcomes over the first five years after case filing. Panel A reports effects for North Carolina. Panel B reports effects for Ohio. And Panel C reports equally-weighted average effects. All coefficients are scaled to represent the effect of 12 months of incarceration. All effects estimated as of five years post filing. Standard errors clustered by defendant are shown in parentheses. Estimated untreated mean outcomes for compliers shifted from zero to some incarceration are shown in square brackets and calculated as detailed in Section A.1. IITBRC is individual income tax before refundable credits.

Table 7: Long-run effects on firm-reported earnings measures

	(1)	(2)	(3)	(4)	(5)
	Any W2	W2 earnings	$asinh(\text{earnings})$	Any 1099 NEC	Total 1099 NEC
Effect of 12 month sentence					
A. North Carolina ( $N = 306,254$ )					
5-9 years post-filing	0.024 (0.010) [0.351]	113.45 (223.77) [4800.52]	0.241 (0.10) [3.25]	-0.004 (0.004) [0.058]	54.507 (116.55) [695.02]
B. Ohio ( $N = 158,665$ )					
5-9 years post-filing	0.004 (0.013) [0.384]	233.97 (371.46) [4988.74]	0.063 (0.13) [3.56]	0.002 (0.006) [0.051]	21.361 (167.70) [589.67]
C. Average					
5-9 years post-filing	0.014 (0.008) [0.368]	173.710 (216.83) [4894.63]	0.152 (0.08) [3.41]	-0.001 (0.004) [0.055]	37.934 (102.11) [642.34]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on key labor market outcomes. Panel A reports effects for North Carolina. Panel B reports effects for Ohio. And Panel C reports equally-weighted average effects. All coefficients are scaled to represent the effect of 12 months of incarceration. All effects are estimated pooling the five to nine years post filing. Standard errors clustered by defendant are shown in parentheses. Estimated untreated mean outcomes for compliers shifted from zero to some incarceration are shown in square brackets and calculated as detailed in Section A.1.

Table 8: Cumulative effects on firm-reported earnings measures

	(1)	(2)	(3)	(4)
	Any W2	W2 earnings	$\text{asinh}(\text{earnings})$	Total 1099 NEC
Effect of 12 month sentence				
	A. North Carolina ( $N = 306,254$ )			
5 years post-filing	-0.123 (0.044) [2.024]	-2675.18 (782.40) [20839.65]	0.06 (0.12) [6.70]	-152.468 (506.77) [3618.40]
	B. Ohio ( $N = 158,665$ )			
5 years post-filing	-0.225 (0.061) [2.646]	-3880.93 (1576.33) [29569.54]	-0.23 (0.13) [7.50]	-353.476 (1027.42) [2946.30]
	C. Average			
5 years post-filing	-0.174 (0.037) [2.335]	-3278.05 (879.91) [25204.60]	-0.09 (0.09) [7.10]	-252.972 (572.80) [3282.35]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on cumulative firm-reported outcomes over the first five years after case filing. Panel A reports effects for North Carolina. Panel B reports effects for Ohio. And Panel C reports equally-weighted average effects. All coefficients are scaled to represent the effect of 12 months of incarceration. All effects estimated as of five years post filing. Standard errors clustered by defendant are shown in parentheses. Estimated untreated mean outcomes for compliers shifted from zero to some incarceration are shown in square brackets and calculated as detailed in Section A.1. Due to computational constraints, estimates in column 4 do not include controls for NC and use a modified specification and sample for OH.

Table 9: Estimates of heterogeneous long-run effects averaging both states

Effect 5-9 years post filing	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Incarceration		Firm-reported earnings						Self-reported filing outcomes		
	Days / year	Cumu. Days	Any W2	W2 amt	Cumu. any	Cumu. earn	asinh(amt)	Any NEC	Filed 1040	Any EIC	Any SE
Gender											
Male	8.32 (2.24) [49.80]	265.20 (9.31) [265.61]	0.014 (0.008) [0.365]	103.89 (226.31) [5115.67]	-0.178 (0.038) [2.349]	-3444.59 (916.11) [26143.21]	0.146 (0.084) [3.398]	-0.001 (0.004) [0.057]	0.012 (0.008) [0.335]	0.005 (0.006) [0.170]	0.001 (0.003) [0.037]
Female	9.82 (5.06) [26.89]	293.37 (21.02) [160.81]	0.024 (0.030) [0.407]	910.92 (731.13) [3472.12]	-0.161 (0.137) [2.359]	-1410.22 (3032.22) [18750.97]	0.279 (0.298) [3.657]	0.002 (0.011) [0.034]	0.007 (0.030) [0.432]	0.016 (0.030) [0.283]	0.002 (0.019) [0.087]
Race											
Black	10.70 (2.80) [44.59]	265.29 (11.57) [254.31]	0.016 (0.011) [0.391]	109.96 (253.98) [4845.48]	-0.132 (0.049) [2.312]	-2403.68 (996.74) [21612.70]	0.161 (0.107) [3.616]	-0.005 (0.004) [0.037]	0.006 (0.010) [0.348]	0.013 (0.009) [0.196]	0.002 (0.005) [0.044]
Not black	5.63 (3.02) [49.66]	269.96 (12.94) [241.91]	0.012 (0.013) [0.339]	307.20 (388.10) [5140.02]	-0.215 (0.057) [2.402]	-4490.62 (1613.38) [32115.03]	0.147 (0.128) [3.159]	0.004 (0.007) [0.081]	0.024 (0.012) [0.333]	0.001 (0.010) [0.154]	0.001 (0.006) [0.036]
Previous incarceration											
Any	7.75 (2.81) [54.38]	255.27 (11.75) [305.15]	0.013 (0.010) [0.331]	185.49 (225.77) [3961.95]	-0.176 (0.046) [2.120]	-1651.64 (884.42) [19395.00]	0.134 (0.096) [3.011]	0.003 (0.004) [0.041]	0.015 (0.009) [0.293]	0.010 (0.008) [0.149]	-0.002 (0.004) [0.038]
None	7.27 (4.13) [34.82]	294.23 (14.15) [158.97]	0.012 (0.017) [0.412]	243.80 (438.63) [5868.76]	-0.246 (0.072) [2.647]	-5155.04 (1673.19) [31122.12]	0.132 (0.166) [3.873]	-0.009 (0.008) [0.067]	-0.003 (0.016) [0.394]	0.006 (0.014) [0.221]	-0.002 (0.008) [0.046]
Employed at $t = -1$											
Employed	10.61 (2.61) [41.14]	272.63 (11.32) [229.64]	0.009 (0.012) [0.464]	183.04 (353.88) [7424.16]	-0.314 (0.053) [3.384]	-6512.48 (1501.08) [43768.20]	0.113 (0.119) [4.435]	-0.004 (0.005) [0.065]	0.011 (0.011) [0.392]	0.004 (0.010) [0.219]	0.000 (0.005) [0.044]
Not employed	7.08 (3.22) [52.34]	266.37 (13.41) [273.29]	0.018 (0.011) [0.284]	234.99 (231.22) [2516.84]	-0.053 (0.050) [1.431]	11.16 (750.93) [8106.46]	0.192 (0.110) [2.492]	0.001 (0.005) [0.047]	0.012 (0.011) [0.298]	0.011 (0.009) [0.141]	0.001 (0.005) [0.042]
Earn above \$15k at $t = -1$											
Earn above	15.90 (4.05) [23.45]	290.08 (25.73) [113.26]	-0.023 (0.023) [0.649]	-1534.92 (1074.27) [18026.34]	-0.569 (0.109) [4.905]	-23884.70 (5658.80) [125222.10]	-0.258 (0.255) [6.705]	0.006 (0.013) [0.084]	0.007 (0.024) [0.531]	-0.005 (0.019) [0.225]	0.012 (0.011) [0.037]
Earn below	7.30 (2.31) [50.01]	264.66 (9.24) [268.26]	0.020 (0.009) [0.334]	446.83 (194.86) [3268.55]	-0.115 (0.040) [2.032]	-393.74 (677.24) [13286.64]	0.220 (0.086) [3.006]	-0.002 (0.004) [0.052]	0.013 (0.008) [0.319]	0.010 (0.007) [0.172]	-0.001 (0.004) [0.043]
Work mostly 2-4 years pre											
Mostly works	10.61 (2.53) [41.64]	283.96 (11.78) [214.78]	0.011 (0.012) [0.447]	-105.66 (358.02) [7275.29]	-0.254 (0.054) [3.127]	-5929.74 (1537.52) [40519.94]	0.102 (0.120) [4.282]	-0.001 (0.006) [0.073]	0.001 (0.011) [0.397]	0.005 (0.010) [0.203]	0.000 (0.005) [0.048]
Mostly doesn't	6.73 (3.29) [52.18]	249.72 (12.58) [291.51]	0.018 (0.011) [0.298]	442.41 (229.65) [2525.75]	-0.116 (0.050) [1.604]	-643.65 (756.82) [10066.23]	0.159 (0.108) [2.608]	-0.001 (0.005) [0.037]	0.019 (0.011) [0.293]	0.007 (0.009) [0.160]	0.002 (0.005) [0.037]
Avg. earnings above \$15k 2-4 years pre											
Earn above	20.11 (3.69) [21.40]	276.73 (20.64) [106.61]	-0.029 (0.021) [0.670]	-1370.89 (946.46) [17990.36]	-0.359 (0.097) [4.393]	-17911.25 (4679.93) [116800.75]	-0.320 (0.234) [6.934]	-0.008 (0.012) [0.088]	-0.026 (0.021) [0.599]	-0.011 (0.017) [0.250]	0.007 (0.010) [0.049]
Earn below	6.71 (2.33) [50.06]	266.17 (9.40) [267.77]	0.022 (0.009) [0.333]	429.58 (197.47) [3416.53]	-0.141 (0.040) [2.104]	-1039.60 (692.66) [14855.65]	0.241 (0.086) [2.996]	-0.001 (0.004) [0.052]	0.018 (0.008) [0.312]	0.011 (0.007) [0.168]	0.000 (0.004) [0.041]
Previous felony charge											
Has prior felony	8.13 (3.92) [53.47]	278.89 (16.59) [333.50]	0.022 (0.014) [0.346]	221.57 (317.20) [4193.34]	-0.172 (0.063) [2.095]	-2636.26 (1216.04) [19634.72]	0.223 (0.136) [3.140]	0.006 (0.006) [0.037]	0.008 (0.013) [0.325]	0.009 (0.011) [0.168]	0.000 (0.006) [0.042]
Doesn't have	8.25 (2.49) [42.65]	262.26 (10.33) [199.89]	0.004 (0.010) [0.381]	-8.70 (279.73) [5386.10]	-0.181 (0.047) [2.493]	-4132.83 (1154.15) [29236.33]	0.046 (0.103) [3.578]	-0.005 (0.005) [0.065]	0.010 (0.010) [0.349]	0.005 (0.008) [0.181]	0.002 (0.005) [0.040]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes pooling the five to nine years post filing. All estimates are equally-weighted averages of effects in North Carolina and Ohio and are scaled to represent the effect of 12 months of incarceration. Each estimate splits the sample into the two groups indicated in the rows. Standard errors clustered by defendant are shown in parentheses. Estimated untreated mean outcomes for compliers shifted from zero to some incarceration are shown in square brackets and calculated as detailed in Section A.1.

Table 10: Effects on defendants' co-parents

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Any W2	W2 earnings	Cumu. any W2	Cumu. W2 earn	EIC deps	Cumu. EIC deps	Any cofiler
Effect of 12 month sentence							
A. North Carolina ( $N = 87,108$ )							
IV: 5-9 years post filing	0.011 (0.021) [0.678]	-195.435 (840.21) [13528]	-0.045 (0.11) [4.26]	-3313.884 (4321.479) [69399]	0.024 (0.04) [0.78]	0.317 (0.27) [6.04]	-0.005 (0.01) [0.05]
OLS: 5-9 years post filing	-0.001 (0.002)	-151.890 (62.95)	-0.007 (0.01)	-1092.776 (339.195)	0.002 (0.00)	-0.043 (0.02)	-0.004 (0.00)
B. Ohio ( $N = 41,686$ )							
IV: 5-9 years post filing	-0.049 (0.027) [0.771]	-790.796 (1400.20) [18348]	-0.119 (0.15) [4.57]	-3480.271 (7640.574) [101396]	-0.022 (0.05) [0.78]	-0.053 (0.36) [5.60]	-0.006 (0.01) [0.07]
OLS: 5-9 years post filing	0.004 (0.001)	51.218 (59.24)	0.023 (0.01)	-114.882 (317.191)	0.004 (0.00)	0.023 (0.02)	-0.004 (0.00)
C. Average							
IV: 5-9 years post filing	-0.019 (0.017) [0.724]	-493.116 (816.47) [15938]	-0.082 (0.09) [4.41]	-3397.078 (4389.008) [85397]	0.001 (0.03) [0.78]	0.132 (0.22) [5.82]	-0.005 (0.00) [0.06]
OLS: 5-9 years post filing	0.002 (0.001)	-50.336 (43.22)	0.008 (0.01)	-603.829 (232.198)	0.003 (0.00)	-0.010 (0.01)	-0.004 (0.00)

*Notes:* This table presents two-stage least squares (IV) and ordinary least squares (OLS) estimates of the effect of months of incarceration on defendants' co-parents outcomes pooling the five to nine years after case filing, not including controls for defendant observables. Co-parents are defined as any individual with whom the defendant had a child before the case was filed according to SSA records. If a defendant has multiple co-parents, the outcome is the average. Panel A reports effects for North Carolina. Panel B reports effects for Ohio. And Panel C reports equally-weighted average effects. All coefficients are scaled to represent the effect of 12 months of incarceration. Standard errors clustered by defendant are shown in parentheses. Estimated untreated mean outcomes for compliers shifted from zero to some incarceration are shown in square brackets and calculated as detailed in Section A.1.

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# A Appendix

## A.1 Interpreting treatment effects

Throughout the analysis, we model incarceration a weakly positive ordered treatment and use months of incarceration as the endogenous variable. As discussed in Angrist and Imbens (1995), abstracting from covariates our treatment effects can therefore be interpreted as “average causal responses” that average the effects of each “dose” of incarceration (e.g., 12 vs. 11 months, six vs. five months) for groups of individuals whose incarceration is shifted by the instruments. Unlike in the standard binary treatment case, it is difficult to estimate treated and untreated complier outcome means in this setting (Rose and Shem-Tov, 2021b). To contextualize our treatment effects, we therefore estimate the only complier mean that is identified: untreated means for individuals shifted from no incarceration to some positive sentence. While the full set of compliers includes those shifted into longer sentences along the intensive margin, untreated means for these individuals are only partially identified.

In North Carolina, where we estimate over-identified models using five distinct instruments, treatment effects and complier means can be interpreted as averages of the instrument-specific estimates with weights related to the strength of each instrument. Using alternative weights changes results little. In Ohio, where we use a continuous instrument for judge severity, the estimates average across the variation induced over the support of the leave-out-mean instrument. Full details for the continuous case are described in Appendix A.2, while further discussion of the multiple discrete instrument case can be found in textbook treatments and in Mogstad et al. (2021).<sup>23</sup>

## A.2 Estimands with continuous instruments

This section considers the 2SLS estimand and identification of complier means using a continuous instrument in Ohio. For simplicity, we abstract from covariates and simplify notation by omitting subscripts and considering a continuous  $Z$  (e.g., leave-out judge leniency) and a discrete, ordered  $D$  (e.g., months of incarceration).

Potential treatments depend on judge leniency as  $D(Z)$ . Compliers are individuals for whom  $D(z) \neq D(z')$ . We assume standard Imbens and Angrist (1994) monotonicity holds, which requires that  $z' > z \rightarrow D(z') \geq D(z)$  (or vice versa). Potential outcomes  $Y$  depend on treatment  $Y(D)$  and indirectly on  $Z$  as  $Y(D(Z))$ .

Let  $G_Z$  be the CDF of  $Z$ , which is assumed without loss of generality to be mean zero

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<sup>23</sup>Conditional on the controls, the instrument set in North Carolina always takes one of two distinct values, obviating the possibility of negative weights raised in Mogstad et al. (2021).

and have support over some interval  $[\underline{z}, \bar{z}]$ . Define:

$$\begin{aligned}\tau(z) &= E[Y(D(z))|Z = z] - E[Y(D(\underline{z}))|Z = \underline{z}] \\ P(z) &= E[D|Z = z] - E[D|Z = \underline{z}]\end{aligned}$$

$\tau(z)$  is simply the reduced-form effect of being assigned to a judge with leniency  $z$  relative to the least severe judge, who has leniency  $\underline{z}$ .  $P(z)$  is the associated change in mean treatment. The Wald estimand can be written as:

$$\beta_{wald} = \frac{Cov(Z, Y)}{Cov(Z, D)} = \int_{-\infty}^{\infty} \mu(z)\beta(z)dG_Z(z)$$

where  $\beta(z) = \frac{E[Y(D(z))|Z=z] - E[Y(D(\underline{z}))|Z=\underline{z}]}{E[D|Z=z] - E[D|Z=\underline{z}]}$ , i.e., the Wald estimate comparing instrument values  $z$  vs.  $\underline{z}$ , and the non-negative weights are  $\mu(z) = \frac{zP(z)}{\int_{-\infty}^{\infty} zP(z)dG_Z(z)}$ , which integrate to one.

As discussed in Angrist and Imbens (1995), each  $\beta(z)$  can be written as an average causal response that averages unit dosage effects with weights that depend on how the  $z$  vs.  $\underline{z}$  comparison shifts compliers across values of the treatment:

$$\begin{aligned}\beta(z) &= \sum_{k=1}^{\bar{D}} w_z(k) E[Y(k) - Y(k-1) | D(z) \geq k > D(\underline{z})] \\ w_z(k) &= \frac{Pr(D(z) \geq k > D(\underline{z}))}{\sum_{k=1}^{\bar{D}} Pr(D(z) \geq k > D(\underline{z}))}\end{aligned}$$

As a result,  $\beta_{wald}$  is separable into the sum of dosage effects for the potentially overlapping complier groups associated with each combination of  $z$  and  $k$ . Combined weight-dose-complier group effect and value of  $z$  are given by  $\mu(z)w_z(k)$ . Hence we can therefore estimate the ‘‘average’’ weight on each dosage interval  $k$ , or  $\bar{w}(k) = \int_{-\infty}^{\infty} \mu(z)w_z(k)dG_Z(z)$ , as  $Cov(Z, 1\{D \geq k\})/Var(Z)$  for each  $k$ . When  $Z$  is binary, only one set of  $w_z(k)$  exist.  $\bar{w}(k)$  thus provides the continuous instrument analogue and summarizes the weight put on different doses of incarceration length.

Average complier means can also be estimated by adapting the approach developed in Abadie (2003). First, define an indicator  $D_0 = 1\{D = 0\}$ . The Wald estimate of the effect of  $D_0$  on  $YD_0$  can be expressed as:

$$\frac{Cov(Z, YD_0)}{Cov(Z, D_0)} = \int_{-\infty}^{\infty} \mu_0(z)\gamma_0(z)dG_Z(z)$$

where  $\gamma_0 = E[Y(0)|D(z) > D(\underline{z}) = 0]$  and the weights are  $\mu_0(z) = \frac{zP_0(z)}{\int_{-\infty}^{\infty} zP_0(z)dG_z(z)}$ , with  $P_0(z) = Pr(D = 0|Z = z) - Pr(D = 0|Z = \underline{z})$ .

It is therefore possible to estimate untreated complier means averaging over the variation induced by the instruments for individuals who would be given zero months of incarceration if assigned  $Z = \underline{z}$ , but would receive some positive quantity when assigned  $Z = z$ . As discussed in [Rose and Shem-Tov \(2021b\)](#), this is the only complier mean that can be estimated in this setting without further restrictions on how the instrument shifts treatment along the intensive margin.

### A.3 Tests of incapacitation and scarring

The results indicate that across two different locations and research designs, incarceration has limited, if any, lasting negative effects on future employment, earnings, and tax-filing behavior. However, there is a sharp decline in labor force participation, wage earnings, self employment, and EIC credit receipt immediately after the focal case when the instruments are most predictive of incapacitation (see [Table B.3](#)). In this section, we provide sharper tests of labor market scarring and parse whether the initial drop provides any evidence for scarring or merely is a product of incapacitation from incarceration.

As a first test, [Figure C.9](#) looks at the relationship between the estimated treatment effects on incarceration and other outcomes divided by the untreated complier means. Panel A plots the estimated treatment effects of incarceration on days incarcerated and W-2 earnings from [Figure 3](#). For each year after filing, the estimated treatment effect on days incarcerated is on the x-axis and estimate for wages is on the y-axis.

If incarceration only affects labor market outcomes through incapacitation, then there will be a one-to-one relationship between days incarcerated and earnings, with earnings falling solely due to removal from the labor market during the period of incarceration. In other words, the elasticity of activity with respect to incapacitation would be -1 and the plotted points will fall along a straight line extending from the origin. We find that the line tightly fits the data—with an  $R^2$  of 0.79 in the Ohio sample and 0.91 in North Carolina—consistent with incapacitation explaining nearly all of the observed effects. Panel (b) presents an equivalent figure to that in Panel (a) but for filing a 1040. Interestingly, the OLS fit is even better in both North Carolina and Ohio, consistent with incapacitation being the driving force behind the effects of incarceration on tax filing.

Next we conduct several exercises to try and predict the effects of incarceration, estimated by our instrumental variables, assuming incapacitation was the only factor impacting the outcomes of interest. Specifically, we predict the effects of a year of incarceration on wage

earnings when restricting the effects to operate only through incapacitation. We conduct the prediction in three different ways:

1. Using average pre-event earnings in periods  $t$  in  $\{-4, -3, -2\}$ , denoted by  $\bar{Y}_i^{pre}$ . We then define the predicted wage earnings in a given period  $t$  as:

$$\hat{Y}_{it} = \bar{Y}_i^{pre} \cdot (1 - \text{share of the year incarcerated})_{it}$$

2. By constructing predicted wage earnings using an OLS regression estimated among individuals with zero days incarcerated and forming predictions. Specifically, we estimate an OLS regression of:  $Y_{it} = X_i' \gamma + \eta_{it}$  using only individuals where days incarcerated equals zero. The predictors  $X_i$  include a rich set of pre-event control variables including criminal history, demographics, past employment, industry, wages, county fixed effects, calendar year fixed effects, and event time fixed effects interacted and not interacted with criminal history variables. We then define the predicted wage earnings as:

$$\hat{Y}_{it} = X_i' \hat{\gamma} \cdot (1 - \text{share of the year incarcerated})_{it}$$

3. Lastly, we implement the same procedure but fit the model in one state (i.e., Ohio) when making predictions on the other state (e.g., North Carolina). This ensures the same data used to form the predictions is not used in estimation.

Importantly, in all of the ways we calculate  $\hat{Y}_{it}$  the instrumental variables impact it only through changes in the share of the year that the individual is incapacitated.

Panel (c) of [Figure C.9](#) present the results. Remarkably, the predicted effects line up closely with the observed ones.

## B Appendix Tables

Table B.1: Decomposition of match types

Order	Match type	Freq.	% of matches	Cumu %
North Carolina				
1	DOB + SSN + Gender + Exact full name (first + last) + zipcode	210,622	64.7	64.7
2	DOB + SSN + Gender + First four letters of last name	59,349	18.2	82.9
3	DOB + Gender + Full name + zipcode	21,381	6.6	89.5
4	DOB + Gender + Full name + info return sent to NC address (but no exact zipcode match)	18,449	5.7	95.2
5	DOB + Gender + Full name	6,553	2	97.2
6	DOB + Gender + First four letters of last name + info return sent to NC address	6,030	1.9	99
7	DOB + Gender + First four letters of last name	3,157	1	100
Ohio				
1	DOB + Full name + zipcode	474,674	64.66	64.66
2	DOB + Full name + info return sent to OH	167,319	22.79	87.46
3	DOB + Full name	33,341	4.54	92
4	DOB + First four letters of last name + info return sent to OH	47,418	6.46	98.46
5	DOB + First four letters of last name	11,314	1.54	100

Table B.2: Relationship between match type and instruments

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Any match	Type 1	Type 2	Type 3	Type 4	Type 5	Type 6	Type 7
Effect of 12 month sentence								
	A. North Carolina							
2SLS estimate	-0.003 (0.004)	-0.013 (0.011)	0.013 (0.010)	-0.002 (0.004)	-0.001 (0.005)	0.001 (0.002)	0.003 (0.002)	-0.002 (0.002)
Outcome mean	0.955	0.700	0.170	0.051	0.047	0.012	0.014	0.007
	B. Ohio							
2SLS estimate	0.000 (0.001)	-0.015 (0.013)	0.013 (0.012)	0.002 (0.004)	0.005 (0.005)	-0.004 (0.002)		
Outcome mean	0.906	0.684	0.234	0.028	0.044	0.010		

*Notes:* This table presents two-stage least squares estimates of the “effect” of a 12 month incarceration sentence on matching to IRS records at all (in column 1) and by type conditional on matching (columns 2-8). Match types are defined as in Table B.1. All coefficients are scaled to represent the effect of 12 months of incarceration. Standard errors clustered by defendant are shown in parentheses.



Table B.3: Effects one year after filing date

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Any W2	W2 earnings	Filed 1040	Adj. Gross	Tot. taxes	EIC benefits	Any EIC	EIC deps	Any SE	Tot. SE	Any 1099 NEC	Tot. 1099 NEC
Effect of 12 month sentence												
	A. North Carolina ( $N = 306,254$ )											
1 year post filing	-0.083 (0.011) [0.297]	-582.478 (163.58) [2206.62]	-0.047 (0.01) [0.20]	-568.835 (264.946) [2962.654]	-9.590 (27.88) [161.40]	-95.795 (23.44) [297.56]	-0.041 (0.01) [0.15]	-0.043 (0.01) [0.12]	-0.011 (0.00) [0.04]	-68.582 (56.80) [470.48]	-0.014 (0.00) [0.05]	-48.604 (113.22) [595.80]
	B. Ohio ( $N = 158,665$ )											
1 year post filing	-0.086 (0.017) [0.458]	-1022.711 (379.89) [4197.37]	-0.066 (0.02) [0.33]	-1521.428 (585.567) [6400.682]	-76.095 (69.46) [366.69]	-75.959 (43.10) [370.22]	-0.030 (0.01) [0.18]	-0.017 (0.02) [0.13]	-0.010 (0.01) [0.05]	-150.149 (107.43) [550.01]	-0.020 (0.01) [0.06]	-176.832 (156.63) [495.23]
	C. Average											
1 year post filing	-0.085 (0.010) [0.378]	-802.595 (206.80) [3202.00]	-0.056 (0.01) [0.27]	-1045.131 (321.358) [4681.668]	-42.842 (37.42) [264.04]	-85.877 (24.53) [333.89]	-0.036 (0.01) [0.16]	-0.030 (0.01) [0.13]	-0.011 (0.00) [0.04]	-109.365 (60.76) [510.25]	-0.017 (0.00) [0.05]	-112.718 (96.63) [545.51]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on taxes and transfers, not including controls for defendant observables. Panel A reports effects for North Carolina. Panel B reports effects for Ohio. Panel C reports equally-weighted average effects. All coefficients are scaled to represent the effect of 12 months of incarceration. All effects estimated one year post case filing date. Standard errors clustered by defendant are shown in parentheses. Estimated untreated mean outcomes for compliers shifted from zero to some incarceration are shown in square brackets and calculated as detailed in Section A.1.

Table B.4: Summary statistics 5-9 years post filing: Tax filing outcomes

	(1)	(2)	(3)	(4)	(5)	(6)
	A. North Carolina			B. Ohio		
	All	Incarcerated	Not incarcerated	All	Incarcerated	Not incarcerated
Adjusted gross income						
1{> 0}	0.391	0.338	0.401	0.393	0.325	0.419
Mean if > 0	15,369	14,135	16,599	19,387	17,290	20,116
S.D. if > 0	200,400	31,280	17,730	25,330	23,770	25,810
50th pctl	11,810	10,480	11,420	13,360	11,680	13,870
90th pctl if > 0	34,760	31,620	35,790	43,510	39,280	44,890
Federal income tax liability before refundable credits						
1{> 0}	0.176	0.141	0.179	0.201	0.155	0.219
Mean if > 0	1,798	1,735	1,720	2,451	2,356	2,481
S.D. if > 0	2,570	2,560	2,560	3,920	3,860	3,940
50th pctl if > 0	1,150	1,090	970	1,390	1,340	1,410
90th pctl if > 0	3,700	3,540	3,840	5,210	4,900	5,300
EIC amount						
1{> 0}	0.227	0.183	0.205	0.217	0.171	0.234
Mean if > 0	1,968	1,782	2,252	2,077	1,829	2,160
S.D. if > 0	1,730	1,680	1,540	1,820	1,740	1,840
50th pctl if > 0	1,690	1,190	2,330	1,770	1,160	1,900
90th pctl if > 0	4,570	4,280	4,410	4,940	4,500	5,040
Mean EIC dependents	1.510	1.456	1.438	1.606	1.521	1.630
Filed 1040	0.397	0.344	0.406	0.400	0.332	0.426
Any Schedule C	0.071	0.053	0.052	0.075	0.055	0.083
Any W2 or 1040	0.537	0.483	0.620	0.552	0.474	0.581
Any W2 or 1040 in state	0.451	0.399	0.504	0.472	0.397	0.501
N	306,254	108,591	197,663	158,665	43,845	114,820

*Notes:* This table presents summary statistics for tax filing outcomes for the North Carolina and Ohio analysis samples. All statistics are reported pooling the five to nine years post filing date. Each statistic is shown for the full sample and those sentenced to some vs. zero months of incarceration. All statistics except for indicators for > 0 are estimated conditional on the relevant variable being > 0. Percentiles are rounded to the nearest \$10 for confidentiality.

Table B.5: Summary statistics 5-9 years post filing: Individual earnings summary statistics

	(1)	(2)	(3)	(4)	(5)	(6)
	A. North Carolina			B. Ohio		
	All	Incarcerated	Not incarcerated	All	Incarcerated	Not incarcerated
W2 wages						
1{> 0}	0.427	0.377	0.567	0.447	0.369	0.477
Mean if > 0	11,276	10,149	9,342	12,864	10,649	13,610
S.D. if > 0	12,060	11,380	11,270	14,770	13,560	15,090
50th pctl if > 0	7,340	6,300	5,180	7,690	5,610	8,460
90th pctl if > 0	26,960	24,540	23,920	32,110	27,250	33,550
1{> 0} if non-filer	0.140	0.139	0.214	0.152	0.142	0.155
Schedule SE self-employment earnings						
1{> 0}	0.054	0.040	0.038	0.059	0.042	0.065
Mean if > 0	9,832	9,700	9,437	11,142	10,896	11,213
S.D. if > 0	7,120	7,100	7,690	9,360	8,870	9,500
50th pctl if > 0	9,520	9,440	8,560	10,430	10,390	10,450
90th pctl if > 0	16,090	15,770	16,450	17,190	16,780	17,370
1099-MISC nonemployee compensation						
1{> 0}	0.066	0.056	0.064	0.064	0.052	0.069
Mean if > 0	8,923	8,657	9,436	9,591	8,589	9,900
S.D. if > 0	13,700	13,890	16,560	15,300	13,820	15,710
50th pctl if > 0	4,390	4,110	3,950	4,210	3,830	4,340
90th pctl if > 0	20,430	19,340	21,090	23,120	20,200	23,790
1{> 0} if non-filer	0.032	0.030	0.031	0.032	0.028	0.034
Any self-reported or 1099	0.102	0.083	0.086	0.106	0.082	0.115
Co-parents						
Any W-2	0.694	0.696	0.738	0.717	0.725	0.714
Mean W-2 if > 0	19,367	18,365	14,031	22,912	22,072	23,177
Top 2-digit NAICS of main W-2 payers (shares cond. on NAICS present)						
Agriculture, forestry, hunting, fishing (11)	0.042	0.050	0.038	0.003	0.004	0.003
Construction (23)	0.125	0.132	0.121	0.069	0.069	0.069
Manufacturing (31-33)	0.122	0.131	0.095	0.083	0.084	0.083
Wholesale trade (42)	0.025	0.025	0.025	0.025	0.023	0.026
Retail trade (44-45)	0.062	0.052	0.113	0.071	0.057	0.076
Transport / warehousing (48-49)	0.023	0.021	0.021	0.029	0.024	0.031
Admin / waste mgmt (56)	0.194	0.210	0.186	0.257	0.292	0.246
Accommodation / food (72)	0.186	0.171	0.193	0.176	0.172	0.178
All other	0.221	0.207	0.207	0.285	0.276	0.288
N	306,254	108,591	197,663	158,665	43,845	114,820

Notes: This table presents summary statistics for labor market outcomes for the North Carolina and Ohio analysis samples. See notes for Table 1.

Table B.6: OLS estimates of effects of incarceration

	(1)	(2)	(3)	(4)
	Incarceration		Labor market activity	
	Days / year	Cumulative	Any earnings	Earnings
A. North Carolina				
Effect of 12 month sentence				
2-4 years pre-filing	2.67 (0.20)	-	0.001 (0.000)	28.41 (4.51)
5-9 years post-filing	23.07 (0.20)	203.26 (1.51)	-0.009 (0.001)	-104.78 (16.36)
Total N	285,467	306,254	306,254	306,254
B. Ohio				
Effect of 12 month sentence				
2-4 years pre-filing	1.27 (0.09)	-	-0.001 (0.000)	-11.85 (3.37)
5-9 years post-filing	21.06 (0.19)	173.95 (2.36)	-0.023 (0.000)	-453.32 (14.59)
Total N	149,869	158,665	158,665	158,665
C. Average				
Effect of 12 month sentence				
2-4 years pre-filing	1.97 (0.11)	-	0.0001 (0.0002)	8.28 (2.81)
5-9 years post-filing	22.07 (0.14)	196.12 (1.45)	-0.016 (0.0004)	-279.05 (10.96)

*Notes:* This table presents ordinary least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. Panel A reports effects for North Carolina, while panel B reports effects for Ohio. All coefficients are scaled to represent the effect of 12 months of incarceration. Column 1 reports effects on days incarcerated in the calendar year. Column 2 reports effects on cumulative incarceration since the year of sentencing. Column 3 reports effects on an indicator for any W2 earnings. Column 4 reports effects on total W2 earnings, including zeros. All effects estimated pooling the years relative to initial filing date indicated in the rows except for Column 2, which is estimated as of five years post-filing. Standard errors clustered by defendant are shown in parentheses.

Table B.7: Placebo tests of effects of incarceration

	(1)	(2)	(3)	(4)	(5)
	Days inc. / year	Inc. > 270 days	Any W2	W2 earnings	$asinh(\text{earnings})$
Effect of 12 month sentence					
	A. North Carolina ( $N = 306,254$ )				
2-4 years pre-filing	5.36 (2.67) [56.18]	0.017 (0.008) [0.142]	0.003 (0.011) [0.410]	100.64 (211.83) [3250.49]	0.003 (0.105) [3.604]
	B. Ohio ( $N = 158,665$ )				
2-4 years pre-filing	-1.28 (2.08) [30.20]	-0.002 (0.006) [0.070]	0.024 (0.014) [0.520]	451.70 (414.51) [5157.86]	0.229 (0.139) [4.596]
	C. Average				
2-4 years pre-filing	2.04 (1.69) [43.19]	0.008 (0.005) [0.106]	0.013 (0.009) [0.465]	276.17 (232.75) [4204.18]	0.116 (0.087) [4.100]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes pooling the two to four years prior to case filing. Panel A reports effects for North Carolina. Panel B reports effects for Ohio. Panel C reports equally weighted average effects. All coefficients are scaled to represent the effect of 12 months of incarceration. Column 1 reports effects on days incarcerated in the calendar year. Column 2 reports effects on an indicator for more than 270 days of incarceration in a year. Column 3 reports effects on an indicator for any W2 earnings. Column 4 reports effects on total W2 earnings, including zeros. Column 5 reports effects on the inverse hyperbolic sine of total W2 earnings. Standard errors clustered by defendant are shown in parentheses. Estimated untreated mean outcomes for compliers shifted from zero to some incarceration are shown in square brackets and calculated as detailed in Section A.1.

Table B.8: Placebo tests of effects of incarceration on co-parents

	(1)	(2)	(3)
	Any W2	W2 earnings	EIC dep
Effect of 12 month sentence			
A. North Carolina ( $N = 87,108$ )			
IV: 2-4 years pre filing	-0.004 (0.019) [0.766]	-829.851 (638.38) [9129]	-0.002 (0.05) [1.05]
OLS: 2-4 years pre filing	-0.003 (0.001)	-280.850 (52.99)	0.001 (0.00)
B. Ohio ( $N = 41,686$ )			
IV: 2-4 years pre filing	0.012 (0.024) [0.759]	738.669 (1210.53) [12106]	0.005 (0.07) [0.77]
OLS: 2-4 years pre filing	0.001 (0.001)	-92.060 (50.15)	-0.001 (0.00)
C. Average			
IV: 2-4 years pre filing	0.004 (0.015) [0.763]	-45.591 (684.27) [10617]	0.001 (0.04) [0.91]
OLS: 2-4 years pre filing	-0.001 (0.001)	-186.455 (36.48)	0.000 (0.00)

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on defendants' co-parents outcomes pooling the two to four years prior to case filing. Co-parents are defined as any individual with whom the defendant had a child before the case was filed according to SSA records. If a defendant has multiple co-parents, the outcome is the average. Panel A reports effects for North Carolina. Panel B reports effects for Ohio. And Panel C reports equally-weighted average effects. All coefficients are scaled to represent the effect of 12 months of incarceration. Standard errors clustered by defendant are shown in parentheses. Estimated untreated mean outcomes for compliers shifted from zero to some incarceration are shown in square brackets and calculated as detailed in Section A.1.

Table B.9: Effects of incarceration on additional outcomes

	(1)	(2)	(3)	(4)	(5)
	Died before t	Died in t	Any W2 or 1040	In NC/OH	Cumu OPE earn
Effect of 12 month sentence					
	A. North Carolina ( $N = 306,254$ )				
5-9 years post-filing	-0.005 (0.004) [0.040]	-0.006 (0.005) [0.043]	0.017 (0.010) [0.481]	0.012 (0.010) [0.419]	2.747 (7.048) -[41.073]
	B. Ohio ( $N = 158,665$ )				
5-9 years post-filing	-0.013 (0.006) [0.049]	-0.005 (0.006) [0.046]	0.012 (0.012) [0.486]	0.000 (0.013) [0.437]	-24.880 (24.067) [20.547]
	C. Average				
5-9 years post-filing	-0.009 (0.004) [0.045]	-0.006 (0.004) [0.045]	0.014 (0.008) [0.484]	0.006 (0.008) [0.428]	-11.066 (12.539) -[10.263]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on additional outcomes. Panel A reports effects for North Carolina. Panel B reports effects for Ohio. And Panel C reports equally-weighted average effects. All coefficients are scaled to represent the effect of 12 months of incarceration. All effects estimated pooling the five to nine years post filing. Standard errors clustered by defendant are shown in parentheses. Estimated untreated mean outcomes for compliers shifted from zero to some incarceration are shown in square brackets and calculated as detailed in Section A.1. Due to computational constraints, estimates for death outcomes do not include defendant-level controls.

Table B.10: Robustness of long-run effect estimates

Specification	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Incarceration		Labor market and tax filing activity					
	Days / year	Cumu. Days	Any W2	W2 earnings	Has 1040	Cumu. any	Cumu. earnings	Cumu. has 1040
A. North Carolina ( $N = 306,254$ )								
No controls	5.60 (3.31)	222.08 (10.15)	0.032 (0.011)	307.77 (243.84)	0.021 (0.010)	-0.073 (0.049)	-1666.95 (955.46)	-0.082 (0.045)
+ prior earnings and industry	5.54 (3.31)	222.39 (10.08)	0.030 (0.011)	258.78 (222.34)	0.020 (0.010)	-0.081 (0.044)	-1973.12 (774.02)	-0.096 (0.040)
+ criminal history and demographics	3.18 (3.31)	212.07 (9.83)	0.029 (0.011)	285.52 (245.04)	0.016 (0.010)	-0.090 (0.049)	-1632.53 (958.59)	-0.085 (0.045)
+ all controls (baseline)	3.20 (3.31)	212.57 (9.82)	0.024 (0.010)	113.45 (223.77)	0.011 (0.010)	-0.123 (0.044)	-2675.18 (782.40)	-0.121 (0.040)
B. Ohio ( $N = 158,665$ )								
No controls	12.86 (2.61)	321.11 (14.50)	0.019 (0.014)	627.89 (441.61)	0.021 (0.014)	-0.12 (0.07)	-1682.15 (2157.89)	-0.137 (0.073)
+ prior earnings and industry	13.33 (2.57)	323.44 (14.40)	0.007 (0.013)	317.79 (371.66)	0.017 (0.012)	-0.21 (0.06)	-3508.12 (1569.99)	-0.162 (0.060)
+ criminal history and demographics	13.21 (2.54)	322.31 (14.28)	0.013 (0.014)	426.75 (431.11)	0.014 (0.013)	-0.16 (0.07)	-2750.25 (2083.39)	-0.180 (0.070)
+ all controls (baseline)	13.50 (2.52)	323.25 (14.25)	0.004 (0.013)	233.97 (371.46)	0.013 (0.012)	-0.23 (0.06)	-3880.93 (1576.33)	-0.184 (0.060)

*Notes:* This table examines the robustness of two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. Panel A reports effects for North Carolina. Panel B reports effects for Ohio. All coefficients are scaled to represent the effect of 12 months of incarceration and are estimated pooling the periods five to nine years post filing date. Standard errors clustered by defendant are shown in parentheses. The first row in each panel presents the baseline effects reported in the main text. The subsequent rows then add additional controls incrementally, with the second row starting with controls for pre-filing earnings and tax-filing, including mean wages and means of indicators for having any wage and any 1040. The third row then adds fixed effects for modal two-digit NAICS of employment pre-filing. The fourth row adds third-order polynomials in the number of previous charges and previous incarceration spells, as well as an indicator for first time conviction. The fifth row adds indicators for sex and race and a third-order polynomial in age. Column 1 reports effects on days incarcerated in the calendar year. Column 2 reports effects on cumulative incarceration since the year of sentencing. Column 3 reports effects on an indicator for any W2 earnings. Column 4 reports effects on total W2 earnings, including zeros. Column 5 reports effects on an indicator for filing a 1040. Column 6 reports cumulative effects on an indicator for any W2 earnings. Column 7 reports cumulative effects on total W2 earnings, including zeros. Column 8 reports cumulative effects on 1040 filing.



Table B.11: OLS estimates for additional outcomes

	(1)	(2)	(3)	(4)	(5)
	Died up to t	Died in t	Any W2 or 1040	In NC/OH	Cumu OPE earn
Effect of 12 month sentence	A. North Carolina ( $N = 306,254$ )				
5-9 years post-filing	-0.004 (0.0002)	-0.002 (0.0003)	-0.010 (0.0007)	-0.011 (0.0007)	-0.642 (0.328)
	B. Ohio ( $N = 158,665$ )				
5-9 years post-filing	-0.003 (0.0002)	-0.002 (0.0002)	-0.018 (0.0005)	-0.015 (0.0005)	-1.448 (0.462)
	C. Average				
5-9 years post-filing	-0.004 (0.0001)	-0.002 (0.0002)	-0.014 (0.0004)	-0.013 (0.0004)	-1.045 (0.283)

*Notes:* This table presents ordinary least squares estimates of the effect of months of incarceration on additional outcomes. Panel A reports effects for North Carolina. Panel B reports effects for Ohio. And Panel C reports equally-weighted average effects. All coefficients are scaled to represent the effect of 12 months of incarceration. All effects estimated pooling the five to nine years post filing. Standard errors clustered by defendant are shown in parentheses. Due to computational constraints, estimates for death outcomes do not include defendant-level controls.

Table B.12: Long-run effects for Pager (2003); Agan and Starr (2017)-style samples

	(1)	(2)	(3)	(4)
	Days / year	Any W2	W2 earnings	asinh(earnings)
Effect of 12 month sentence				
A. Overall				
5-9 years post-filing	8.351 (2.079) [47.184]	0.014 (0.008) [0.368]	173.710 (216.827) [4894.626]	0.152 (0.082) [3.406]
B. Pager (2003) sample				
5-9 years post-filing	-4.286 (11.458) [40.301]	0.125 (0.050) [0.236]	3175.738 (1432.614) [1187.782]	1.302 (0.511) [2.032]
B. Agan & Starr (2017) sample				
5-9 years post-filing	6.131 (11.377) [55.537]	0.045 (0.039) [0.342]	-647.557 (1021.520) [4937.731]	0.412 (0.387) [3.208]

*Notes:* This table examines the two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes in a sample restricted to be similar to those in Pager (2003) and Agan and Starr (2017). Panel A reports effects for the full sample. Panel B reports effects for the sample restricted to be similar to Pager (2003). Panel C reports effects for the sample restricted to be similar to Agan and Starr (2017). All coefficients are scaled to represent the effect of 12 months of incarceration and are estimated pooling the periods five to nine years post filing date. Standard errors clustered by defendant are shown in parentheses. Column 1 reports effects on days incarcerated in the calendar year. Column 2 reports effects on an indicator for any W2 earnings. Column 3 reports effects on total W2 earnings, including zeros. Column 4 reports results for the inverse hyperbolic sine of total W2 earnings.

Table B.13: Cumulative effects for Pager (2003); Agan and Starr (2017)-style samples

	(1)	(2)	(3)
	Days / year	Any W2	W2 earnings
Effect of 12 month sentence			
A. Overall			
5-9 years post-filing	267.913 (8.651) [252.786]	-0.174 (0.037) [2.335]	-3278.052 (879.908) [25204.590]
B. Pager (2003) sample			
5-9 years post-filing	340.376 (41.531) [229.362]	0.096 (0.233) [2.185]	3770.332 (5020.457) [15744.325]
B. Agan & Starr (2017) sample			
5-9 years post-filing	313.808 (42.530) [250.892]	-0.127 (0.177) [2.367]	-3764.8720 (3601.169) [19168.834]

*Notes:* This table examines the two-stage least squares estimates of the effect of months of incarceration on cumulative incarceration and labor market outcomes in a sample restricted to be similar to those in Pager (2003) and Agan and Starr (2017). Panel A reports effects for the full sample. Panel B reports effects for the sample restricted to be similar to Pager (2003). Panel C reports effects for the sample restricted to be similar to Agan and Starr (2017). All coefficients are scaled to represent the effect of 12 months of incarceration and are estimated pooling the periods five to nine years post filing date. Standard errors clustered by defendant are shown in parentheses. Column 1 reports effects on cumulative days incarcerated by the end of the calendar year. Column 2 reports effects on an indicator for cumulative W2 earnings since time period 0. Column 3 reports effects on cumulative W2 earnings since time period 0, including zeros. Column 4 reports results for the inverse hyperbolic sine of cumulative W2 earnings since period 0.

Table B.14: North Carolina: Heterogeneous long-run effects

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Incarceration		Firm-reported earnings						Self-reported filing outcomes		
Effect 5-9 years post filing	Days / year	Cumu. Days	Any W2	W2 earnings	Cumu. any	Cumu. earn	asinh(earn)	Any NEC	Filed 1040	Any EIC	Any SE
<b>Gender</b>											
Male	2.69	211.96	0.025	106.28	-0.116	-2852.80	0.244	-0.004	0.016	0.014	-0.002
(N=254226)	(3.53)	(10.50)	(0.011)	(242.50)	(0.046)	(853.95)	(0.108)	(0.005)	(0.010)	(0.008)	(0.004)
	[68.40]	[405.36]	[0.345]	[4865.42]	[2.038]	[21448.84]	[3.214]	[0.059]	[0.334]	[0.152]	[0.039]
Female	12.31	227.17	0.034	364.51	-0.246	-1076.84	0.372	-0.002	-0.027	-0.013	-0.035
(N=52028)	(8.77)	(24.64)	(0.031)	(456.96)	(0.118)	(1482.05)	(0.291)	(0.008)	(0.029)	(0.028)	(0.016)
	[51.98]	[325.75]	[0.434]	[4215.53]	[2.160]	[15486.75]	[3.839]	[0.043]	[0.451]	[0.270]	[0.117]
<b>Race</b>											
Black	5.22	209.81	0.036	232.68	-0.045	-1888.70	0.351	-0.004	0.015	0.022	0.000
(N=155357)	(4.37)	(13.46)	(0.015)	(297.32)	(0.061)	(1022.15)	(0.143)	(0.005)	(0.013)	(0.012)	(0.005)
	[58.76]	[382.11]	[0.386]	[5155.19]	[2.048]	[20241.19]	[3.586]	[0.028]	[0.342]	[0.182]	[0.041]
Not black	2.02	212.85	0.010	-20.23	-0.208	-3592.16	0.100	-0.004	0.007	-0.002	-0.013
(N=150897)	(4.97)	(14.17)	(0.014)	(332.67)	(0.060)	(1169.79)	(0.141)	(0.008)	(0.014)	(0.011)	(0.006)
	[79.71]	[416.46]	[0.312]	[4444.74]	[2.027]	[22394.19]	[2.876]	[0.099]	[0.339]	[0.128]	[0.049]
<b>Previous incarceration</b>											
Any	4.39	209.63	0.027	177.30	-0.092	-2237.55	0.272	-0.002	0.015	0.013	-0.003
(N=143016)	(3.83)	(11.65)	(0.012)	(241.60)	(0.049)	(851.80)	(0.114)	(0.005)	(0.011)	(0.009)	(0.004)
	[68.98]	[403.16]	[0.336]	[4269.24]	[1.986]	[19601.08]	[3.080]	[0.058]	[0.319]	[0.141]	[0.041]
None	-0.58	251.42	0.018	240.22	-0.286	-4221.70	0.172	-0.013	-0.018	0.011	-0.018
(N=163238)	(7.62)	(20.22)	(0.027)	(666.06)	(0.114)	(2285.31)	(0.272)	(0.013)	(0.026)	(0.022)	(0.012)
	[53.43]	[290.97]	[0.393]	[5713.54]	[2.334]	[24213.53]	[3.686]	[0.061]	[0.381]	[0.208]	[0.051]
<b>Employed at <math>t = -1</math></b>											
Employed	8.12	226.78	0.019	281.38	-0.289	-5125.74	0.231	-0.013	0.010	0.010	-0.015
(N=157143)	(4.23)	(13.48)	(0.015)	(388.52)	(0.065)	(1456.15)	(0.154)	(0.006)	(0.014)	(0.012)	(0.005)
	[60.33]	[376.64]	[0.441]	[7209.06]	[3.123]	[37557.40]	[4.204]	[0.077]	[0.366]	[0.189]	[0.055]
Not employed	0.17	203.62	0.026	-1.33	-0.001	-707.96	0.227	0.004	0.007	0.008	0.002
(N=149111)	(4.91)	(14.09)	(0.014)	(246.54)	(0.056)	(690.65)	(0.134)	(0.006)	(0.013)	(0.011)	(0.005)
	[72.61]	[414.72]	[0.303]	[3162.42]	[1.346]	[9603.00]	[2.711]	[0.045]	[0.336]	[0.145]	[0.041]
<b>Earn above \$15k at <math>t = -1</math></b>											
Earn above	19.27	229.56	-0.016	-1238.60	-0.356	-12599.21	-0.206	-0.011	-0.005	0.003	-0.003
(N=34473)	(6.01)	(21.85)	(0.024)	(872.91)	(0.098)	(4072.60)	(0.255)	(0.011)	(0.023)	(0.018)	(0.009)
	[39.73]	[248.90]	[0.617]	[15276.00]	[4.587]	[97161.69]	[6.282]	[0.118]	[0.469]	[0.182]	[0.061]
Earn below	1.21	209.90	0.029	272.66	-0.097	-1503.63	0.297	-0.002	0.012	0.013	-0.006
(N=271781)	(3.68)	(10.72)	(0.011)	(219.02)	(0.047)	(652.81)	(0.110)	(0.005)	(0.010)	(0.009)	(0.004)
	[70.32]	[412.41]	[0.327]	[3836.78]	[1.788]	[14124.72]	[2.974]	[0.052]	[0.330]	[0.155]	[0.043]
<b>Work mostly 2-4 years pre</b>											
Mostly works	9.14	229.92	0.010	-318.66	-0.264	-5533.25	0.083	-0.002	-0.011	0.002	-0.012
(N=160444)	(4.01)	(13.11)	(0.014)	(356.27)	(0.061)	(1384.58)	(0.141)	(0.006)	(0.013)	(0.011)	(0.005)
	[59.68]	[362.66]	[0.441]	[7203.16]	[2.850]	[35758.48]	[4.207]	[0.077]	[0.391]	[0.186]	[0.061]
Mostly doesn't	-1.89	194.91	0.035	505.55	0.001	38.90	0.356	-0.004	0.027	0.014	0.001
(N=145810)	(5.20)	(14.56)	(0.015)	(268.53)	(0.059)	(750.26)	(0.144)	(0.006)	(0.014)	(0.011)	(0.006)
	[73.86]	[429.83]	[0.290]	[2924.55]	[1.419]	[9179.55]	[2.574]	[0.045]	[0.310]	[0.147]	[0.033]
<b>Avg. earnings above \$15k 2-4 years pre</b>											
Earn above	22.21	245.23	-0.027	-1464.67	-0.287	-12967.03	-0.290	-0.018	-0.041	-0.022	-0.005
(N=35350)	(5.82)	(22.62)	(0.024)	(861.97)	(0.105)	(4069.95)	(0.256)	(0.012)	(0.023)	(0.018)	(0.010)
	[31.27]	[234.06]	[0.646]	[17082.69]	[4.089]	[100849.10]	[6.696]	[0.091]	[0.584]	[0.244]	[0.072]
Earn below	0.59	207.44	0.033	351.99	-0.096	-1200.74	0.335	-0.002	0.018	0.017	-0.006
(N=270904)	(3.71)	(10.72)	(0.011)	(220.26)	(0.047)	(664.18)	(0.110)	(0.005)	(0.010)	(0.009)	(0.004)
	[71.28]	[413.06]	[0.324]	[3708.23]	[1.843]	[13599.48]	[2.933]	[0.056]	[0.317]	[0.147]	[0.042]
<b>Previous felony charge</b>											
Has prior felony	5.17	208.54	0.041	343.35	-0.085	-1619.89	0.411	0.001	0.005	0.012	-0.007
(N=104412)	(5.44)	(15.87)	(0.017)	(335.06)	(0.067)	(1079.23)	(0.160)	(0.006)	(0.015)	(0.013)	(0.006)
	[68.89]	[458.45]	[0.356]	[4697.35]	[1.970]	[19120.91]	[3.249]	[0.046]	[0.361]	[0.167]	[0.048]
Doesn't have	2.37	210.00	0.003	-313.20	-0.156	-4188.34	0.017	-0.007	0.007	0.007	-0.005
(N=201842)	(4.15)	(12.70)	(0.014)	(300.84)	(0.058)	(1131.35)	(0.133)	(0.006)	(0.013)	(0.011)	(0.005)
	[63.94]	[343.71]	[0.355]	[5180.07]	[2.150]	[24319.39]	[3.345]	[0.067]	[0.327]	[0.151]	[0.041]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes pooling the five to nine years post filing in North Carolina. All coefficients are scaled to represent the effect of 12 months of incarceration. Each estimate splits the sample into the two groups indicated in the rows. Standard errors clustered by defendant are shown in parentheses. Estimated untreated mean outcomes for compliers shifted from zero to some incarceration are shown in square brackets and calculated as detailed in Section A.1.

Table B.15: Ohio: Heterogeneous long-run effects

Effect 5-9 years post filing	(1) Incarceration		(3)	(4)	(5) Firm-reported earnings			(6)	(7)	(8)	(9) Self-reported filing outcomes		
	Days / year	Cumu. Days	Any W2	W2 earnings	Cumu. any	Cumu. earn	asinh(earn)	Any NEC	Filed 1040	Any EIC	Any SE		
<b>Gender</b>													
Male (N=126550)	13.96 (2.77) [31.20]	318.45 (15.37) [125.87]	0.003 (0.013) [0.385]	101.50 (382.18) [5365.92]	-0.240 (0.061) [2.659]	-4036.39 (1621.04) [30837.58]	0.048 (0.129) [3.582]	0.001 (0.006) [0.055]	0.009 (0.012) [0.335]	-0.003 (0.010) [0.187]	0.004 (0.005) [0.035]		
Female (N=32115)	7.34 (5.06) [1.81]	359.58 (34.07) [-4.13]	0.014 (0.052) [0.380]	1457.33 (1389.02) [2728.71]	-0.076 (0.248) [2.559]	-1743.61 (5880.56) [22015.19]	0.186 (0.519) [3.475]	0.007 (0.021) [0.025]	0.042 (0.052) [0.412]	0.045 (0.052) [0.297]	0.039 (0.035) [0.058]		
<b>Race</b>													
Black (N=94282)	16.19 (3.50) [30.42]	320.77 (18.82) [126.52]	-0.004 (0.016) [0.396]	-12.75 (411.86) [4535.77]	-0.220 (0.077) [2.575]	-2918.65 (1711.49) [22984.21]	-0.030 (0.158) [3.645]	-0.006 (0.006) [0.045]	-0.003 (0.015) [0.353]	0.005 (0.013) [0.209]	0.004 (0.008) [0.046]		
Not black (N=64383)	9.24 (3.45) [19.61]	327.08 (21.64) [67.37]	0.014 (0.021) [0.366]	634.63 (701.31) [5835.31]	-0.222 (0.097) [2.776]	-5389.08 (3007.24) [41835.86]	0.194 (0.213) [3.442]	0.013 (0.012) [0.063]	0.041 (0.021) [0.327]	0.003 (0.016) [0.181]	0.014 (0.010) [0.023]		
<b>Previous incarceration</b>													
Any (N=44212)	11.12 (4.11) [39.77]	300.91 (20.41) [207.15]	-0.002 (0.016) [0.326]	193.68 (381.47) [3654.66]	-0.260 (0.077) [2.253]	-1065.73 (1550.23) [19188.92]	-0.004 (0.156) [2.943]	0.008 (0.007) [0.025]	0.014 (0.015) [0.267]	0.006 (0.012) [0.157]	-0.001 (0.006) [0.035]		
None (N=114453)	15.12 (3.20) [16.21]	337.03 (19.82) [26.97]	0.006 (0.018) [0.431]	247.39 (570.94) [6023.99]	-0.206 (0.088) [2.961]	-6088.38 (2444.50) [38030.71]	0.093 (0.188) [4.061]	-0.004 (0.009) [0.073]	0.012 (0.018) [0.406]	0.002 (0.015) [0.234]	0.014 (0.009) [0.041]		
<b>Employed at <math>t = -1</math></b>													
Employed (N=89118)	13.09 (3.07) [21.96]	318.48 (18.19) [82.63]	-0.001 (0.018) [0.487]	84.69 (591.58) [7639.25]	-0.338 (0.084) [3.644]	-7899.21 (2625.38) [49978.99]	-0.004 (0.183) [4.667]	0.005 (0.009) [0.053]	0.011 (0.017) [0.417]	-0.003 (0.015) [0.249]	0.014 (0.008) [0.033]		
Not employed (N=69547)	14.00 (4.18) [32.06]	329.13 (22.81) [131.87]	0.011 (0.018) [0.265]	471.32 (391.23) [1871.26]	-0.105 (0.084) [1.516]	730.27 (1333.63) [6609.92]	0.157 (0.174) [2.272]	-0.003 (0.009) [0.048]	0.016 (0.017) [0.260]	0.015 (0.014) [0.137]	0.000 (0.009) [0.043]		
<b>Earn above \$15k at <math>t = -1</math></b>													
Earn above (N=22557)	12.52 (5.43) [7.17]	350.59 (46.58) [-22.37]	-0.029 (0.040) [0.681]	-1831.25 (1963.22) [20776.67]	-0.782 (0.195) [5.222]	-35170.18 (10559.46) [153282.50]	-0.309 (0.441) [7.127]	0.024 (0.023) [0.050]	0.018 (0.041) [0.593]	-0.013 (0.034) [0.267]	0.026 (0.019) [0.013]		
Earn below (N=136108)	13.40 (2.80) [29.70]	319.43 (15.06) [124.10]	0.011 (0.013) [0.341]	621.00 (322.36) [2700.32]	-0.133 (0.065) [2.275]	716.16 (1186.79) [12448.55]	0.143 (0.132) [3.038]	-0.002 (0.006) [0.052]	0.014 (0.013) [0.309]	0.006 (0.011) [0.190]	0.005 (0.007) [0.042]		
<b>Work mostly 2-4 years pre</b>													
Mostly works (N=89345)	12.09 (3.08) [23.59]	338.01 (19.58) [66.90]	0.013 (0.019) [0.453]	107.35 (621.13) [7347.42]	-0.245 (0.089) [3.404]	-6326.23 (2745.70) [45281.40]	0.121 (0.194) [4.357]	0.000 (0.009) [0.069]	0.013 (0.018) [0.403]	0.008 (0.016) [0.220]	0.012 (0.009) [0.034]		
Mostly doesn't (N=69320)	15.35 (4.04) [30.51]	304.53 (20.51) [153.19]	-0.010 (0.017) [0.305]	379.27 (372.63) [2126.96]	-0.234 (0.079) [1.789]	-1326.20 (1314.62) [10952.90]	-0.037 (0.161) [2.642]	0.002 (0.008) [0.030]	0.011 (0.016) [0.276]	-0.001 (0.013) [0.174]	0.004 (0.008) [0.041]		
<b>Avg. earnings above \$15k 2-4 years pre</b>													
Earn above (N=23216)	18.02 (4.55) [11.54]	308.22 (34.52) [-20.84]	-0.032 (0.036) [0.693]	-1277.12 (1685.28) [18898.02]	-0.431 (0.163) [4.697]	-22855.47 (8428.66) [132752.40]	-0.350 (0.392) [7.171]	0.001 (0.020) [0.085]	-0.011 (0.036) [0.615]	0.000 (0.029) [0.257]	0.018 (0.017) [0.026]		
Earn below (N=135449)	12.84 (2.82) [28.83]	324.89 (15.44) [122.48]	0.011 (0.013) [0.341]	507.17 (327.81) [3124.83]	-0.187 (0.064) [2.366]	-878.45 (1215.73) [16111.81]	0.147 (0.133) [3.059]	0.001 (0.006) [0.048]	0.018 (0.013) [0.307]	0.005 (0.011) [0.190]	0.006 (0.007) [0.040]		
<b>Previous felony charge</b>													
Has prior felony (N=36268)	11.10 (5.65) [38.06]	349.24 (29.13) [208.54]	0.002 (0.023) [0.336]	99.78 (538.69) [3689.33]	-0.259 (0.108) [2.221]	-3652.63 (2179.52) [20148.53]	0.036 (0.220) [3.030]	0.011 (0.010) [0.028]	0.011 (0.021) [0.290]	0.007 (0.018) [0.170]	0.006 (0.010) [0.036]		
Doesn't have (N=122397)	14.14 (2.77) [21.37]	314.53 (16.29) [56.07]	0.005 (0.015) [0.407]	295.80 (471.70) [5592.14]	-0.207 (0.073) [2.837]	-4077.31 (2012.04) [34153.26]	0.075 (0.157) [3.812]	-0.003 (0.008) [0.064]	0.014 (0.015) [0.371]	0.004 (0.013) [0.212]	0.008 (0.008) [0.039]		

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes pooling the five to nine years post filing in Ohio. All coefficients are scaled to represent the effect of 12 months of incarceration. Each estimate splits the sample into the two groups indicated in the rows. Standard errors clustered by defendant are shown in parentheses. Estimated untreated mean outcomes for compliers shifted from zero to some incarceration are shown in square brackets and calculated as detailed in Section A.1.

Table B.16: Pre/post employment shares by industry of main W2 payer

Pre	Post	Share non-incar	Share incar
None	None	0.1042	0.1553
None	Unknown	0.0036	0.0039
None	Temp	0.0228	0.033
None	Food	0.018	0.0237
None	Retail	0.0104	0.0128
None	Educ/health	0.0036	0.0035
None	Man/cons	0.0177	0.0291
None	Professional	0.0068	0.0094
Unknown	None	0.0184	0.0207
Unknown	Unknown	0.0086	0.0046
Unknown	Temp	0.0093	0.0083
Unknown	Food	0.0095	0.0069
Unknown	Retail	0.0068	0.0049
Unknown	Educ/health	0.0039	0.0018
Unknown	Man/cons	0.0097	0.0092
Unknown	Professional	0.0043	0.003
Temp	None	0.0404	0.0524
Temp	Unknown	0.0042	0.0032
Temp	Temp	0.0319	0.0293
Temp	Food	0.0173	0.0162
Temp	Retail	0.0119	0.0107
Temp	Educ/health	0.005	0.0026
Temp	Man/cons	0.0199	0.0232
Temp	Professional	0.0088	0.0073
Food	None	0.0493	0.0558
Food	Unknown	0.006	0.004
Food	Temp	0.0329	0.0277
Food	Food	0.0667	0.0493
Food	Retail	0.0205	0.0144
Food	Educ/health	0.0082	0.0038
Food	Man/cons	0.0225	0.0225
Food	Professional	0.0127	0.0087
Retail	None	0.0331	0.0336
Retail	Unknown	0.0047	0.0028
Retail	Temp	0.0187	0.0144
Retail	Food	0.0198	0.0135
Retail	Retail	0.0252	0.0151
Retail	Educ/health	0.0055	0.0023
Retail	Man/cons	0.0189	0.0173
Retail	Professional	0.0086	0.0052
Educ/health	None	0.0118	0.0087
Educ/health	Unknown	0.0023	0.001
Educ/health	Temp	0.0069	0.0035
Educ/health	Food	0.0072	0.0043
Educ/health	Retail	0.0046	0.0024
Educ/health	Educ/health	0.0117	0.0032
Educ/health	Man/cons	0.0039	0.0027
Educ/health	Professional	0.0036	0.0015
Man/cons	None	0.0375	0.0538
Man/cons	Unknown	0.0037	0.0035
Man/cons	Temp	0.0183	0.0209
Man/cons	Food	0.0093	0.0102
Man/cons	Retail	0.0108	0.0111
Man/cons	Educ/health	0.0023	0.002
Man/cons	Man/cons	0.047	0.0477
Man/cons	Professional	0.0066	0.0062
Professional	None	0.0162	0.0176
Professional	Unknown	0.0022	0.0015
Professional	Temp	0.0092	0.0083
Professional	Food	0.0086	0.0066
Professional	Retail	0.0069	0.0043
Professional	Educ/health	0.0029	0.0014
Professional	Man/cons	0.0086	0.0076
Professional	Professional	0.0076	0.0044

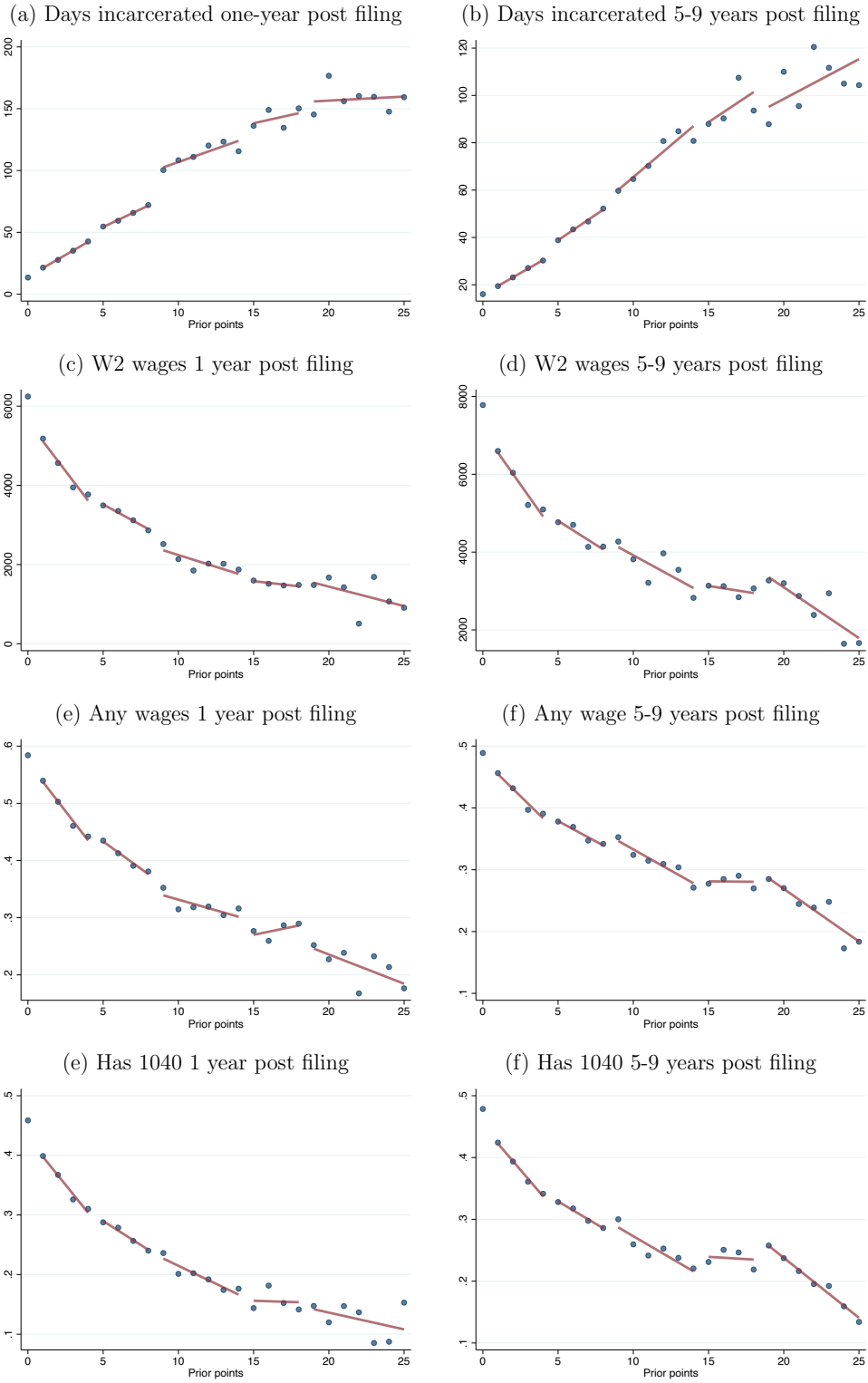
## C Appendix figures

Figure C.1: North Carolina sentencing guidelines

	I 0 Pts	II 1-4 Pts	III 5-8 Pts	IV 9-14 Pts	V 15-18 Pts	VI 19+ Pts	
<b>E</b>	I/A 25 - 31	I/A 29 - 36	A 34 - 42	A 46 - 58	A 53 - 66	A 59 - 74	<b>DISPOSITION</b> <i>Aggravated Range</i>
	<b>20 - 25</b>	<b>23 - 29</b>	<b>27 - 34</b>	<b>37 - 46</b>	<b>42 - 53</b>	<b>47 - 59</b>	<b>PRESUMPTIVE RANGE</b>
	<del>15 - 20</del>	<del>17 - 23</del>	<del>20 - 27</del>	<del>23 - 37</del>	<del>32 - 42</del>	<del>35 - 45</del>	<i>Mitigated Range</i>
<b>F</b>	I/A 16 - 20	I/A 19 - 24	I/A 21 - 26	A 25 - 31	A 34 - 42	A 39 - 49	
	<b>13 - 16</b>	<b>15 - 19</b>	<b>17 - 21</b>	<b>20 - 25</b>	<b>27 - 34</b>	<b>31 - 39</b>	
	<del>10 - 13</del>	<del>11 - 15</del>	<del>13 - 17</del>	<del>15 - 20</del>	<del>20 - 27</del>	<del>23 - 31</del>	
<b>G</b>	I/A 13 - 16	I/A 15 - 19	I/A 16 - 20	I/A 20 - 25	A 21 - 26	A 29 - 36	
	<b>10 - 13</b>	<b>12 - 15</b>	<b>13 - 16</b>	<b>16 - 20</b>	<b>17 - 21</b>	<b>23 - 29</b>	
	<del>8 - 10</del>	<del>9 - 12</del>	<del>10 - 13</del>	<del>12 - 16</del>	<del>13 - 17</del>	<del>17 - 23</del>	
<b>H</b>	C/I/A 6 - 8	I/A 8 - 10	I/A 10 - 12	I/A 11 - 14	I/A 15 - 19	A 20 - 25	
	<b>5 - 6</b>	<b>6 - 8</b>	<b>8 - 10</b>	<b>9 - 11</b>	<b>12 - 15</b>	<b>16 - 20</b>	
	<del>4 - 5</del>	<del>4 - 6</del>	<del>6 - 8</del>	<del>7 - 9</del>	<del>9 - 12</del>	<del>12 - 16</del>	
<b>I</b>	C 6 - 8	C/I 6 - 8	I 6 - 8	I/A 8 - 10	I/A 9 - 11	I/A 10 - 12	
	<b>4 - 6</b>	<b>4 - 6</b>	<b>5 - 6</b>	<b>6 - 8</b>	<b>7 - 9</b>	<b>8 - 10</b>	
	<del>3 - 4</del>	<del>3 - 4</del>	<del>4 - 5</del>	<del>4 - 6</del>	<del>5 - 7</del>	<del>6 - 8</del>	

*Notes:* This figure shows the North Carolina sentencing guidelines applied to offenses committed after December 1, 1995, but before December 1, 2009. Each offense is classified to a severity class that determines the applicable row of the grid. Offenders receive a numerical criminal history score, or “prior points,” which is a weighted sum of prior convictions based on severity and timing, that determines the applicable column. The columns group multiple prior point values into a prior record level. The numbers in each offense class and prior record level cell define minimum incarceration sentences. Maximum sentences are always 120% of the minimum. Sentences are specified for three different ranges: aggravated, presumptive, and mitigated. Each cell is assigned a set of recommended sentence types: “A” denotes active incarceration, and “C” and “I” denote the type of probation. When a non-incarceration sentence is imposed, the incarceration sentence recommended by the grid is suspended. Probation sentences are typically between 18 and 36 months. The thick red lines indicate the grid boundaries used to construct the instruments.

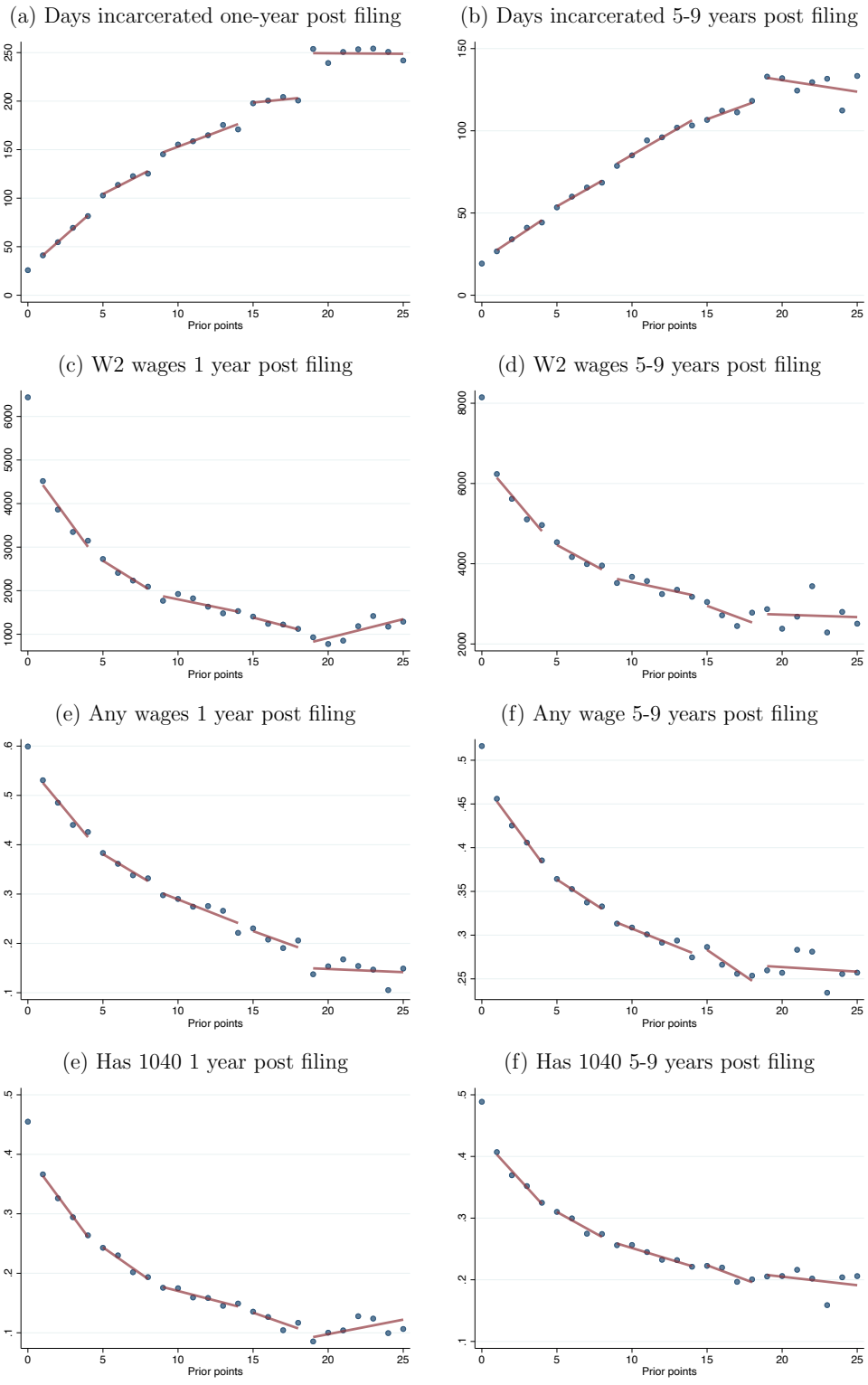
Figure C.2: Visualization of research design in North Carolina (Class I)



Notes: These figures plot mean outcomes and reduced-form fits for key incarceration, labor market, and tax filing outcomes from Equation 4 for Felony Class I.



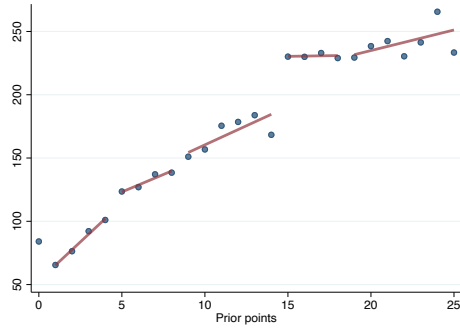
Figure C.3: Visualization of research design in North Carolina (Class H)



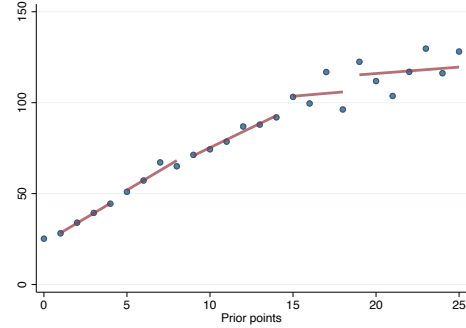
Notes: These figures plot mean outcomes and reduced-form fits for key incarceration, labor market, and tax filing outcomes from Equation 4 for Felony Class H.

Figure C.4: Visualization of research design in North Carolina (Class G)

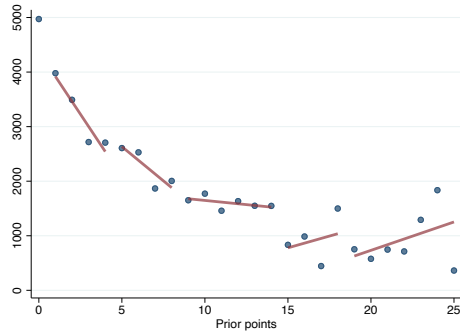
(a) Days incarcerated one-year post filing



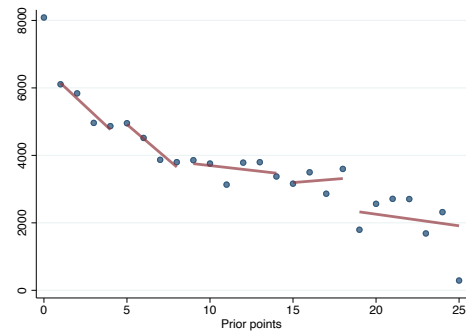
(b) Days incarcerated 5-9 years post filing



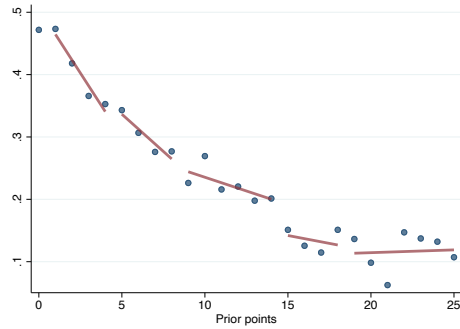
(c) W2 wages 1 year post filing



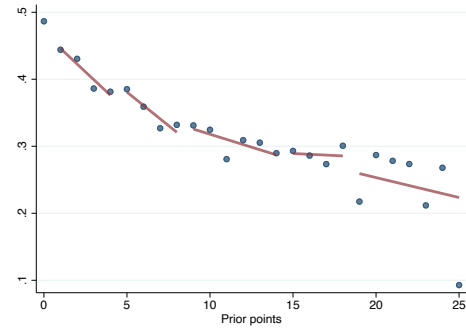
(d) W2 wages 5-9 years post filing



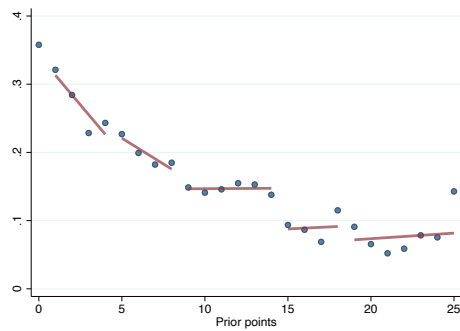
(e) Any wages 1 year post filing



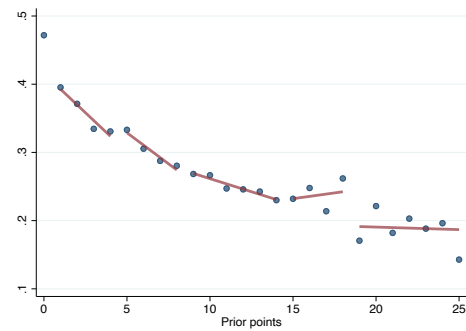
(f) Any wage 5-9 years post filing



(g) Has 1040 1 year post filing

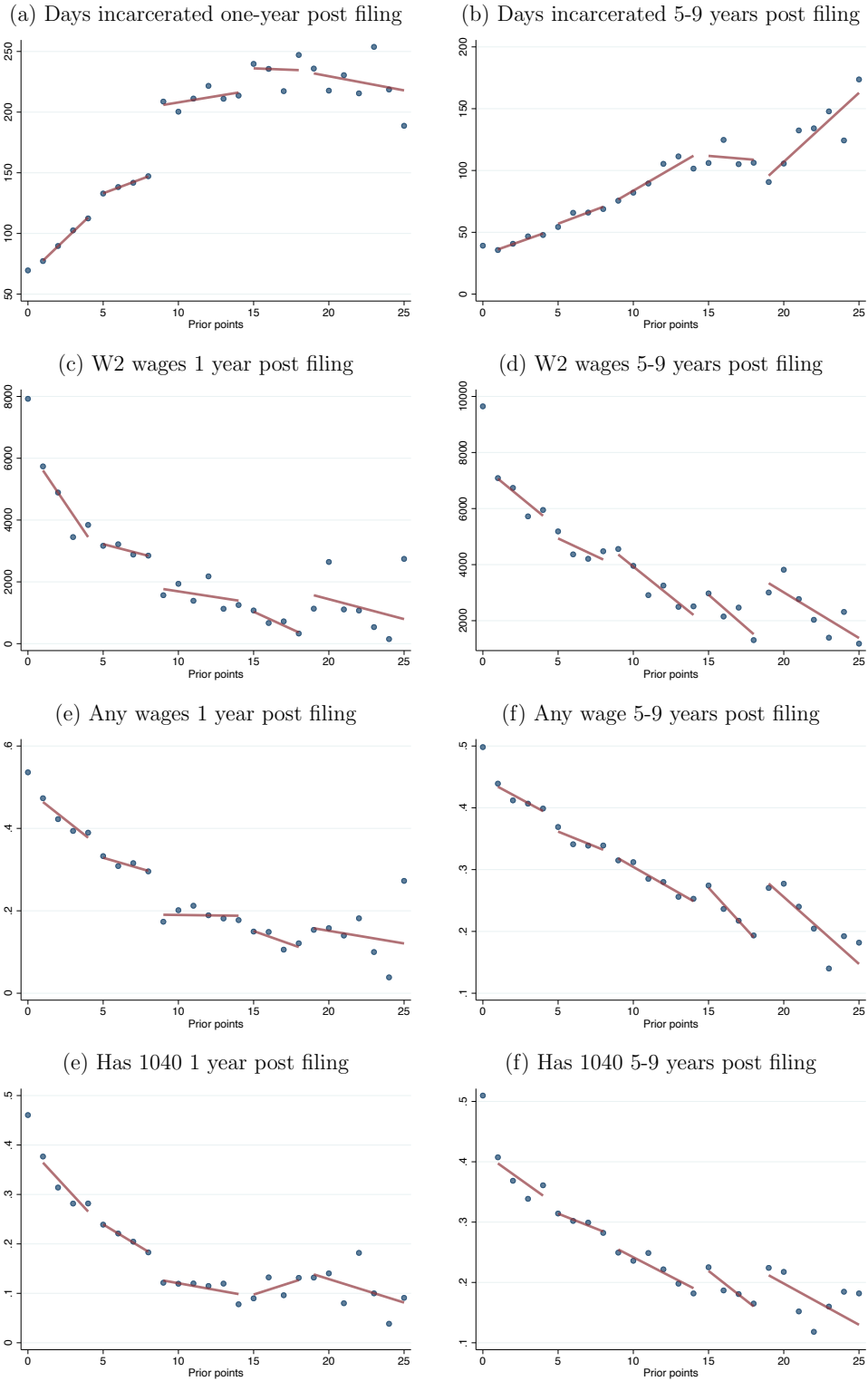


(h) Has 1040 5-9 years post filing



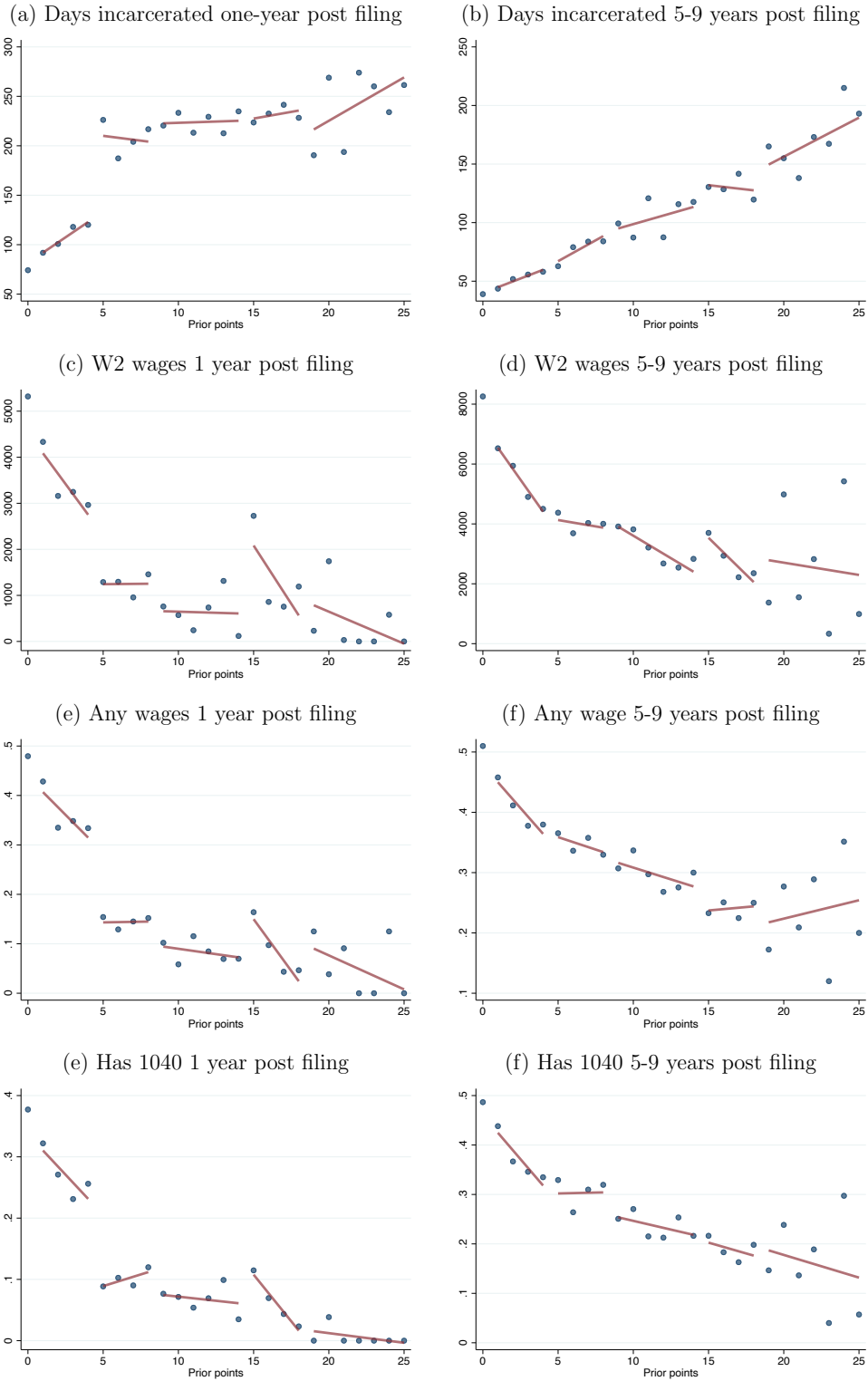
Notes: These figures plot mean outcomes and reduced-form fits for key incarceration, labor market, and tax filing outcomes from Equation 4 for Felony Class G.

Figure C.5: Visualization of research design in North Carolina (Class F)



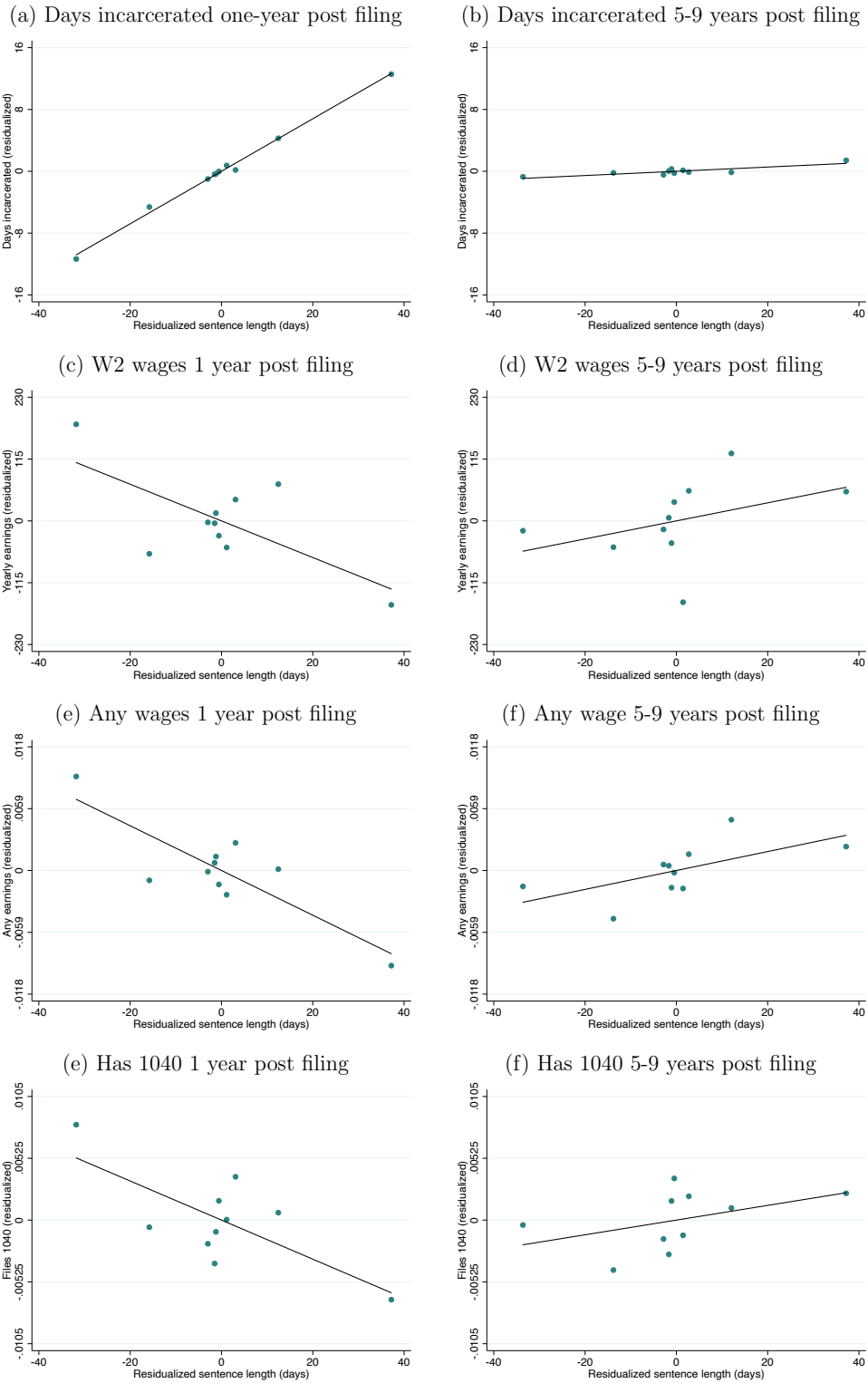
Notes: These figures plot mean outcomes and reduced-form fits for key incarceration, labor market, and tax filing outcomes from Equation 4 for Felony Class F.

Figure C.6: Visualization of research design in North Carolina (Class E)



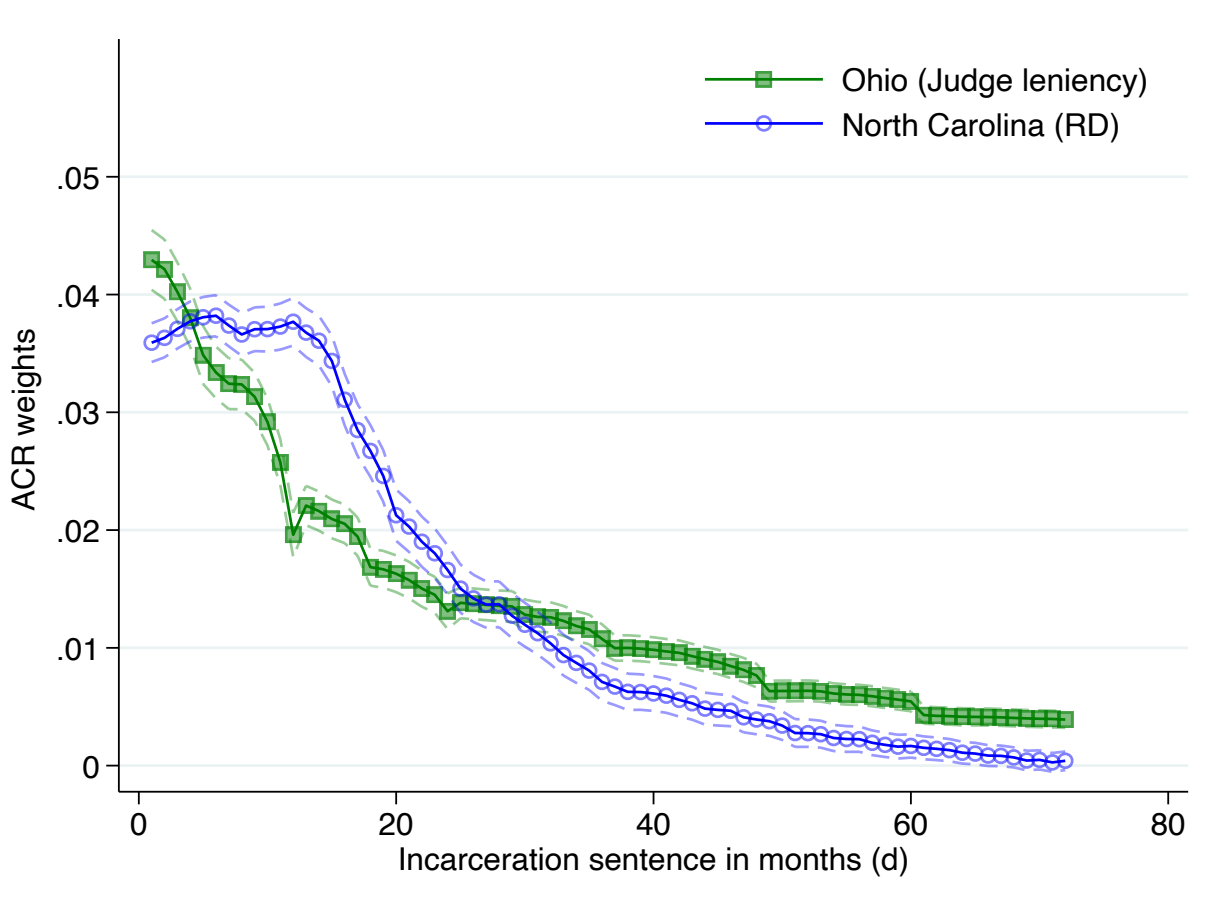
*Notes:* These figures plot mean outcomes and reduced-form fits for key incarceration, labor market, and tax filing outcomes from Equation 4 for Felony Class E.

Figure C.7: Visualization of research design in Ohio



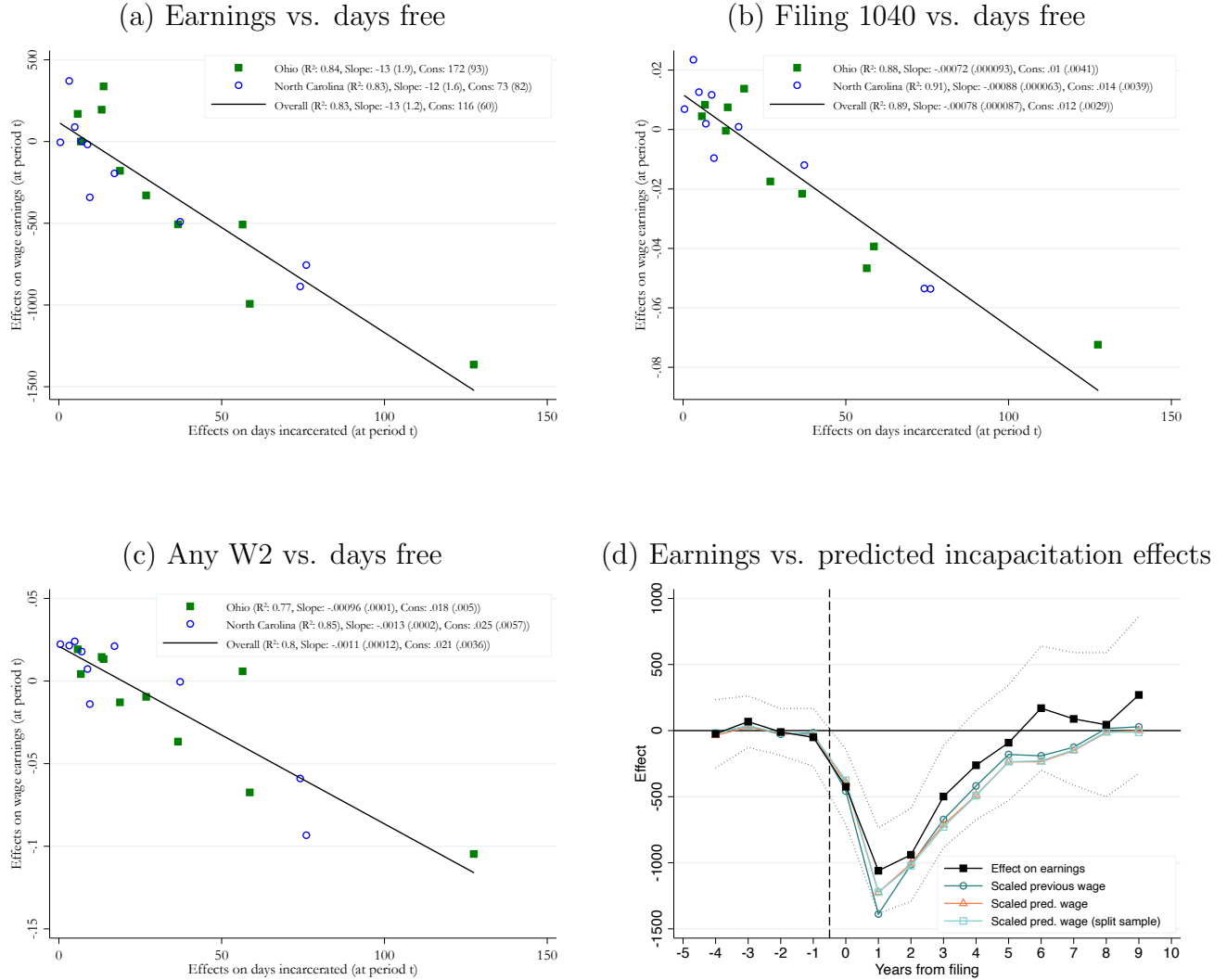
*Notes:* These figures plot mean outcomes against the mean predicted first stage, with all controls residualized out.

Figure C.8: The variation in exposure to incarceration induced by our instrumental variables



Notes: This figure presents the ACR weights (see (Angrist and Imbens, 1995)) for our instrumental variables in both Ohio and North Carolina. In North Carolina, we have five instruments, so we report average effects.

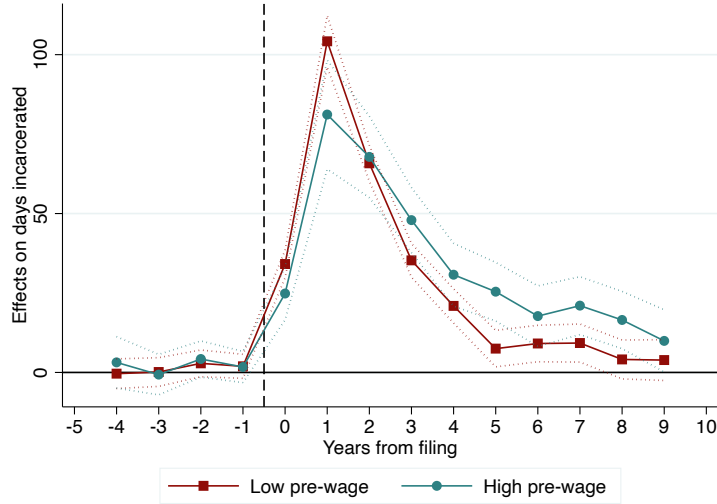
Figure C.9: Relationship between incarceration and earnings effects



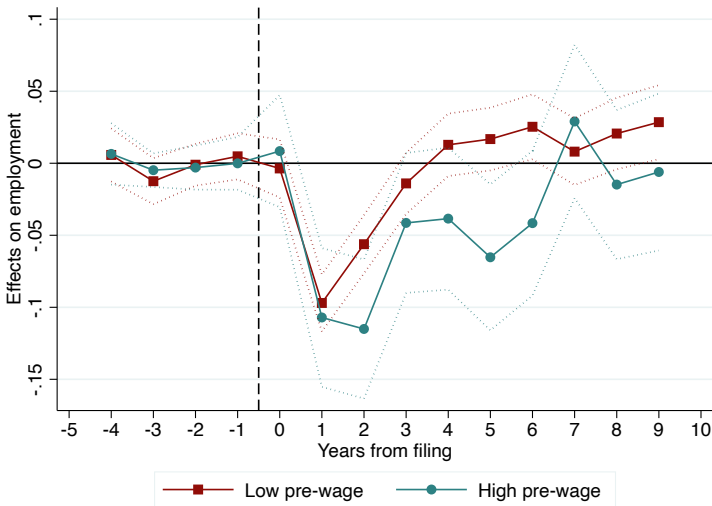
*Notes:* These figures test whether dynamic effects on W2 earnings can be explained by dynamic effects on incarceration. Panel (a) plots effects on earnings against effects on days free from Figure 3 for the first nine years after filing, scaling both by the CCM. The black line is the least squares fit. If days incarcerated explained all earnings effects, all dots should fall on a line passing through the origin, up to sampling error. Panel (b) plots effects on filing a 1040 versus effects on days free, again re-scaling by the CCM and with the black line representing the best linear fit. Panel (c) plots combined effects on W2 earnings from both states against predicted earnings effects. The outcome for “scaled previous wage” is average earnings in the two to four years prior to filing times 1 - days incarcerated / -365. The outcome for predicted wage is predicted earnings based on a regression of earnings on covariates among defendants with zero days of incarceration times 1- days incarcerated / -365. The prediction regression includes demographic variables, criminal history, and prior earnings history interacted with event time. The final line is the same, but the model is fit on Ohio observations when forming the prediction for North Carolina and vice versa.

Figure C.10: Combined effects of incarceration by prior earnings

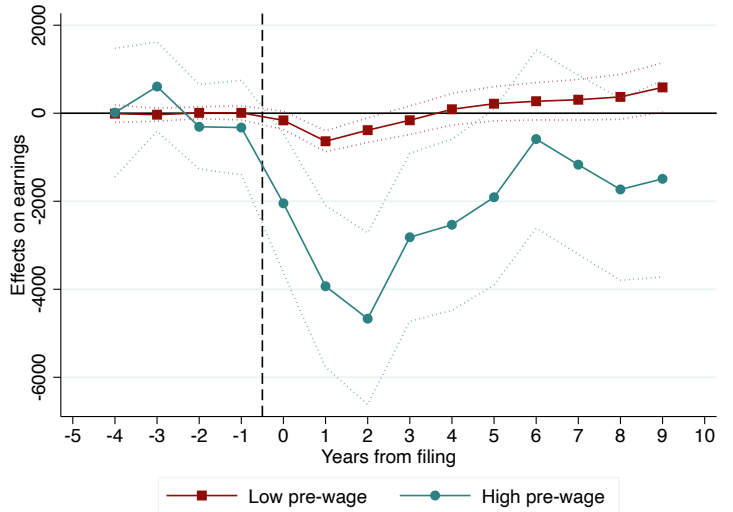
(a) Days incarcerated



(b) Any W2



(c) W2 earnings

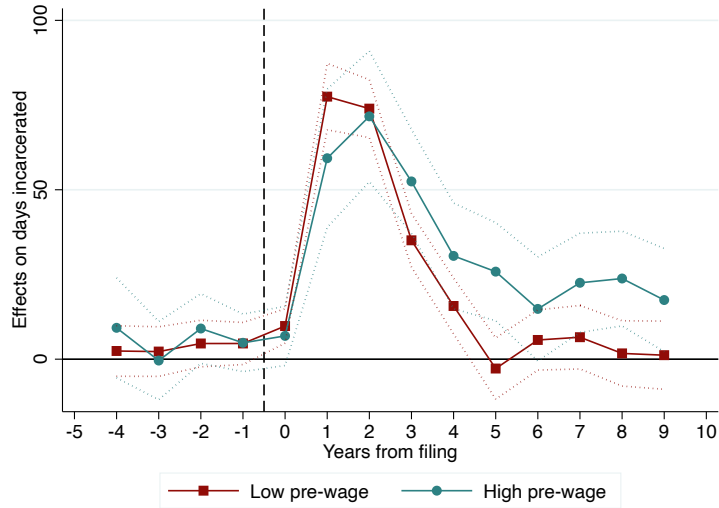


*Notes:* These figures present two-stage least squares estimates of the dynamic effect of incarceration on days of incarceration, an indicator for any W2 earnings, and total W2 earnings separately for defendants who earned above vs. below \$15,000 per year on average in the two to four years prior to their case filing date. Each estimate is the equally-weighted average of effects in Ohio and North Carolina estimated separately. Effects are estimated in the year relative to filing date indicated by the x-axis. All coefficients are scaled to represent the effect of 12 months of incarceration. 95% confidence intervals based on standard errors clustered by defendant are shown in dotted lines.

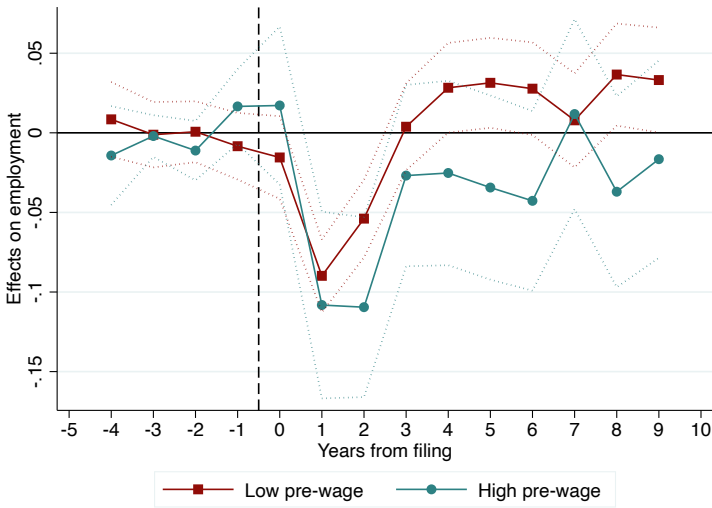


Figure C.11: North Carolina: Effects of incarceration by prior earnings

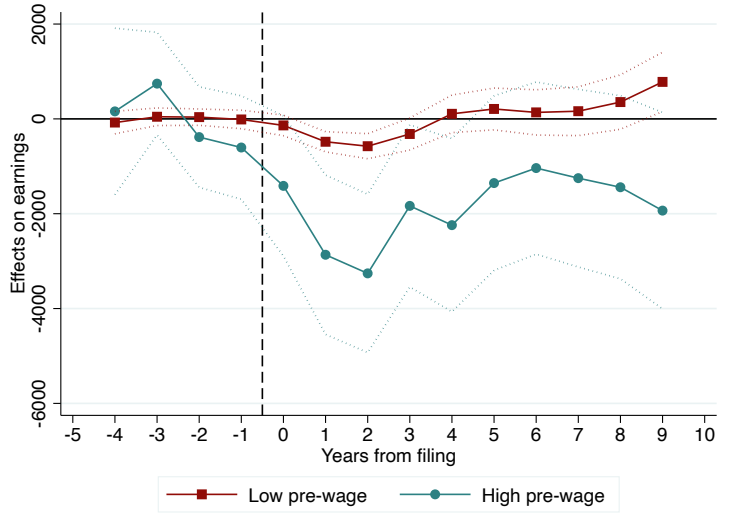
(a) Days incarcerated



(b) Any W2



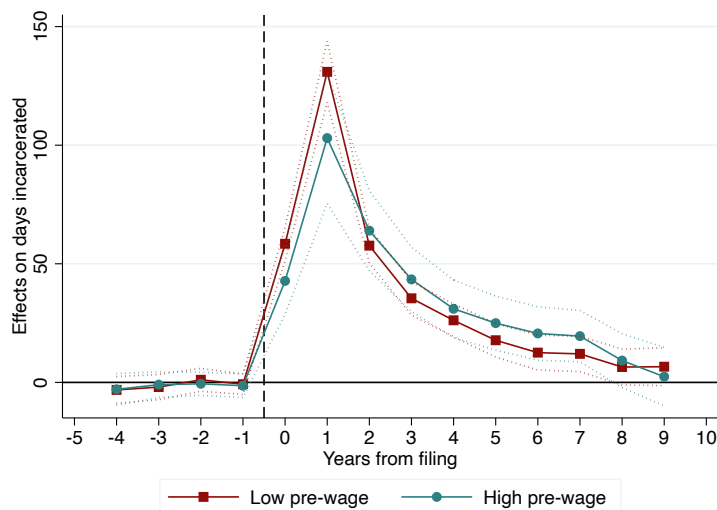
(c) W2 earnings



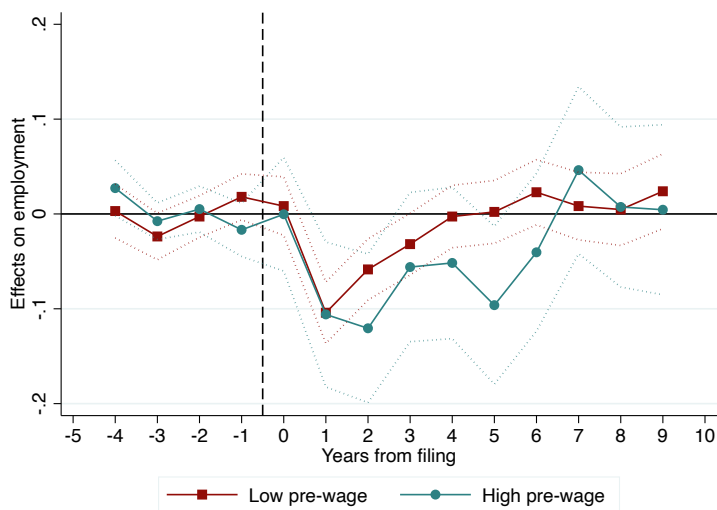
*Notes:* These figures present two-stage least squares estimates of the dynamic effect of incarceration on days of incarceration, an indicator for any W2 earnings, and total W2 earnings separately for defendants who earned above vs. below \$15,000 per year on average in the two to four years prior to their case filing date in North Carolina. Effects are estimated in the year relative to filing date indicated by the x-axis. All coefficients are scaled to represent the effect of 12 months of incarceration. 95% confidence intervals based on standard errors clustered by defendant are shown in dotted lines.

Figure C.12: Ohio: Effects of incarceration by prior earnings

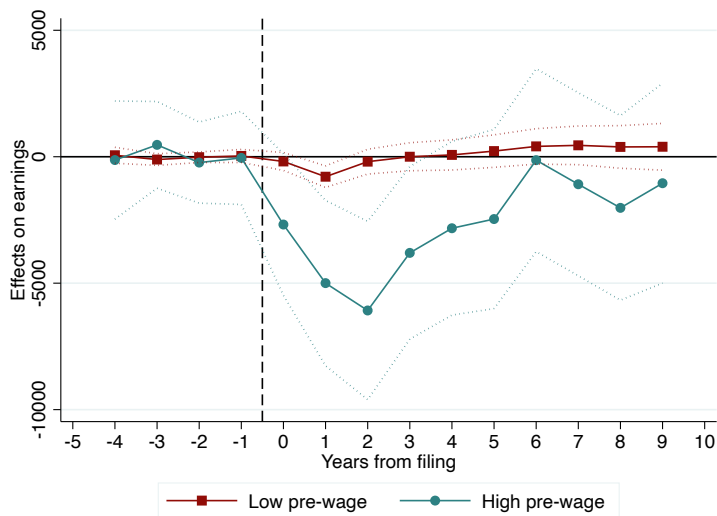
(a) Days incarcerated



(b) Any W2



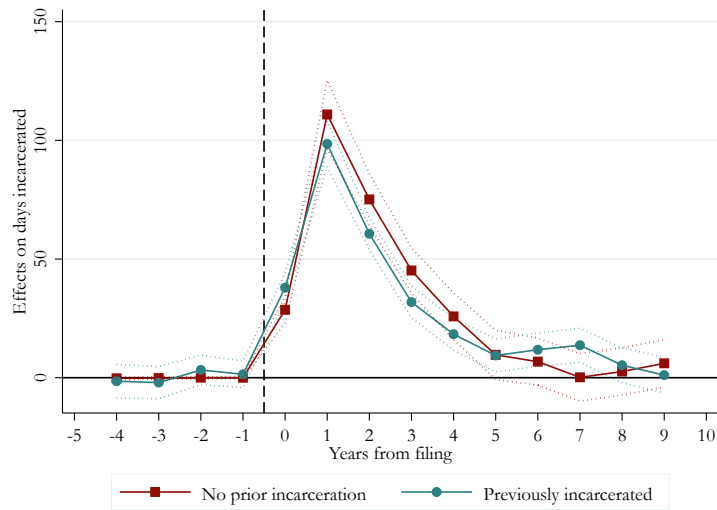
(c) W2 earnings



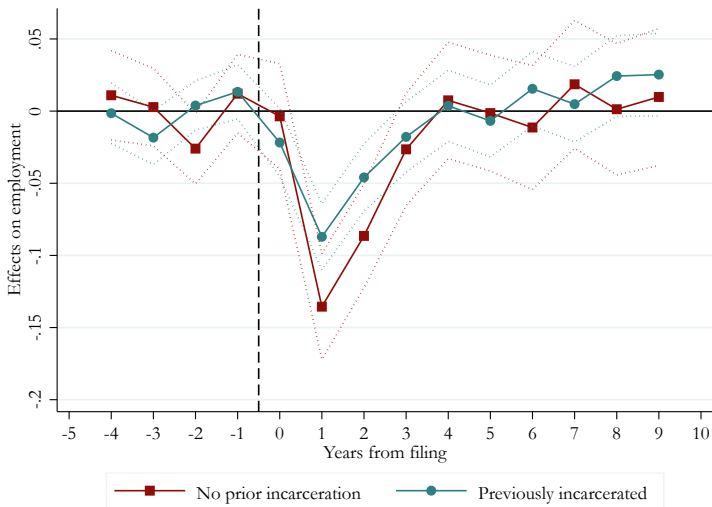
*Notes:* These figures present two-stage least squares estimates of the dynamic effect of incarceration on days of incarceration, an indicator for any W2 earnings, and total W2 earnings separately for defendants who earned above vs. below \$15,000 per year on average in the two to four years prior to their case filing date in Ohio. Effects are estimated in the year relative to filing date indicated by the x-axis. All coefficients are scaled to represent the effect of 12 months of incarceration. 95% confidence intervals based on standard errors clustered by defendant are shown in dotted lines.

Figure C.13: Combined effects of incarceration by whether previously incarcerated

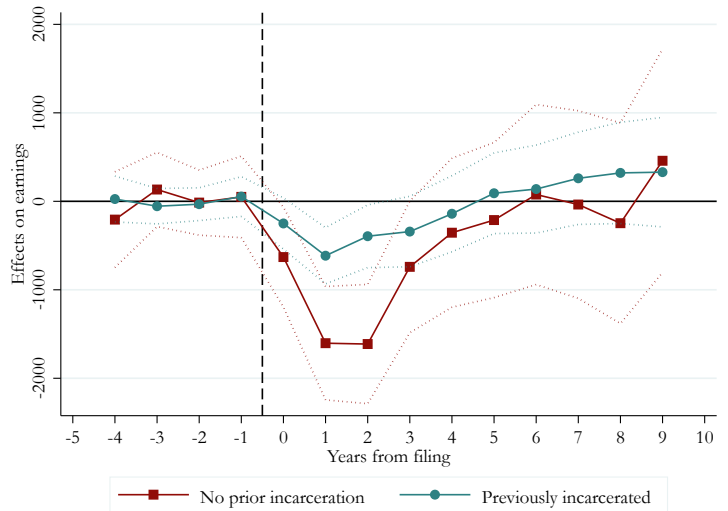
(a) Days incarcerated



(b) Any W2



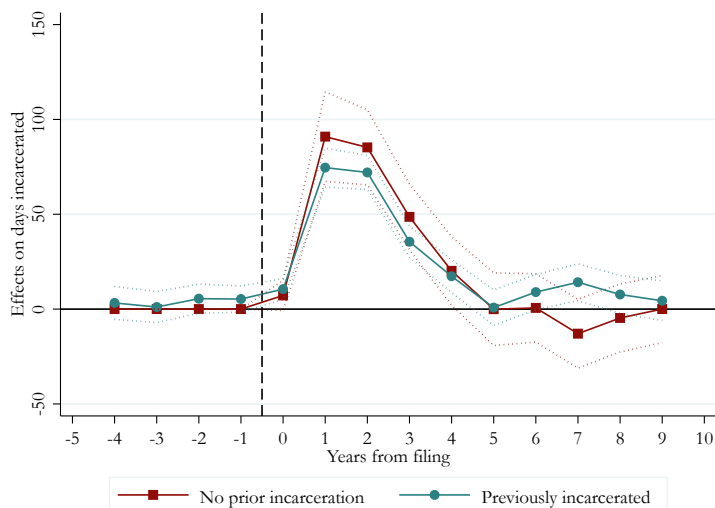
(c) W2 earnings



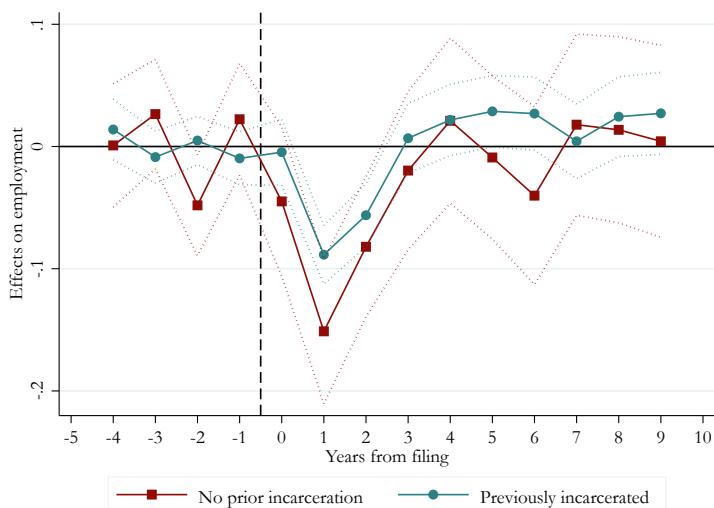
*Notes:* These figures present two-stage least squares estimates of the dynamic effect of incarceration on days of incarceration, an indicator for any W2 earnings, and total W2 earnings separately for defendants with vs. without any prior incarceration exposure at time their case was filed. Each estimate is the equally-weighted average of effects in Ohio and North Carolina estimated separately. Effects are estimated in the year relative to filing date indicated by the x-axis. All coefficients are scaled to represent the effect of 12 months of incarceration. 95% confidence intervals based on standard errors clustered by defendant are shown in dotted lines.

Figure C.14: North Carolina: Effects of incarceration by whether previously incarcerated

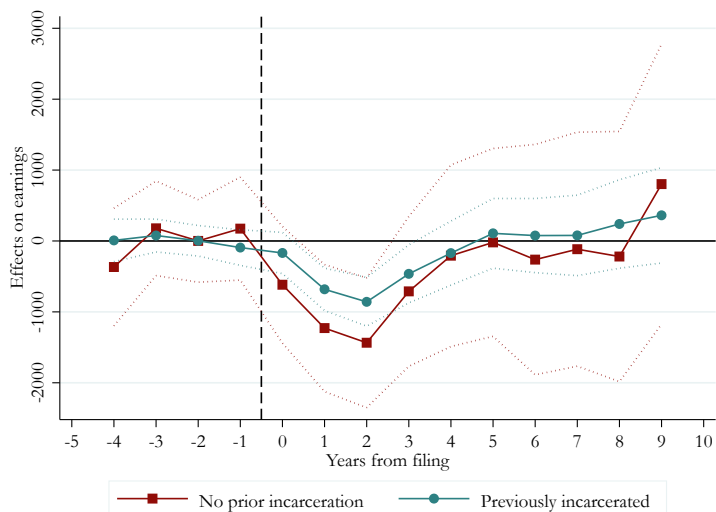
(a) Days incarcerated



(b) Any W2



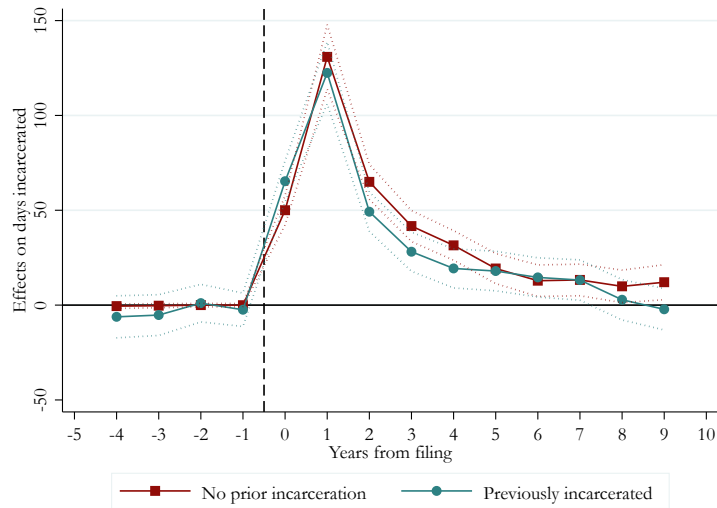
(c) W2 earnings



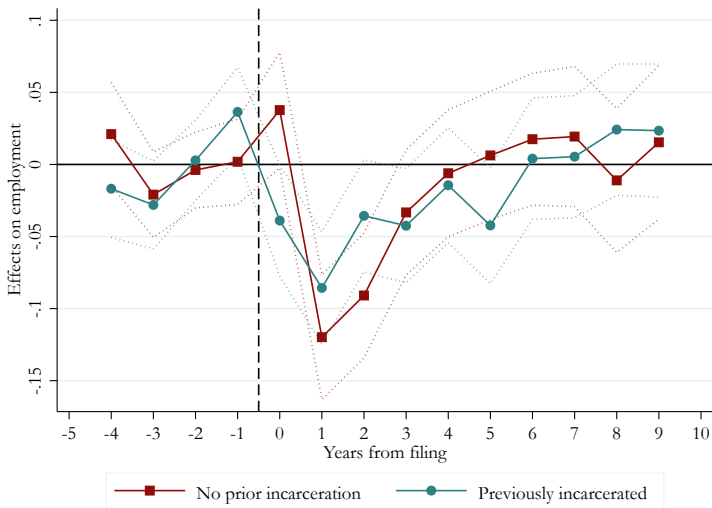
*Notes:* These figures present two-stage least squares estimates of the dynamic effect of incarceration on days of incarceration, an indicator for any W2 earnings, and total W2 earnings separately for defendants with vs. without any prior incarceration exposure at time their case was filed in North Carolina. Effects are estimated in the year relative to filing date indicated by the x-axis. All coefficients are scaled to represent the effect of 12 months of incarceration. 95% confidence intervals based on standard errors clustered by defendant are shown in dotted lines.

Figure C.15: Ohio: Effects of incarceration by whether previously incarcerated

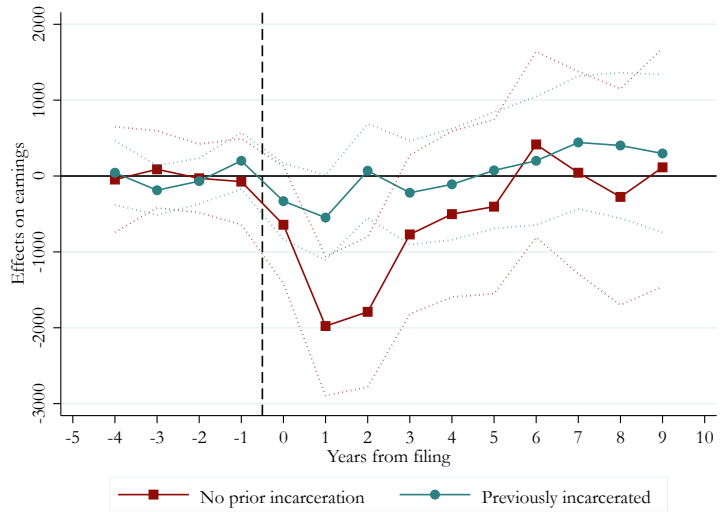
(a) Days incarcerated



(b) Any W2



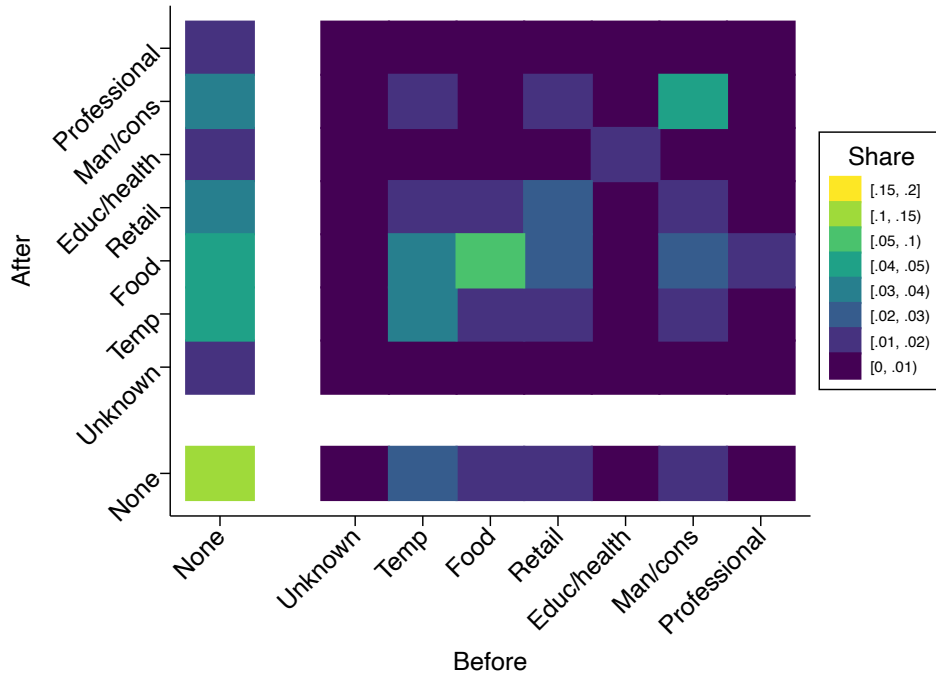
(c) W2 earnings



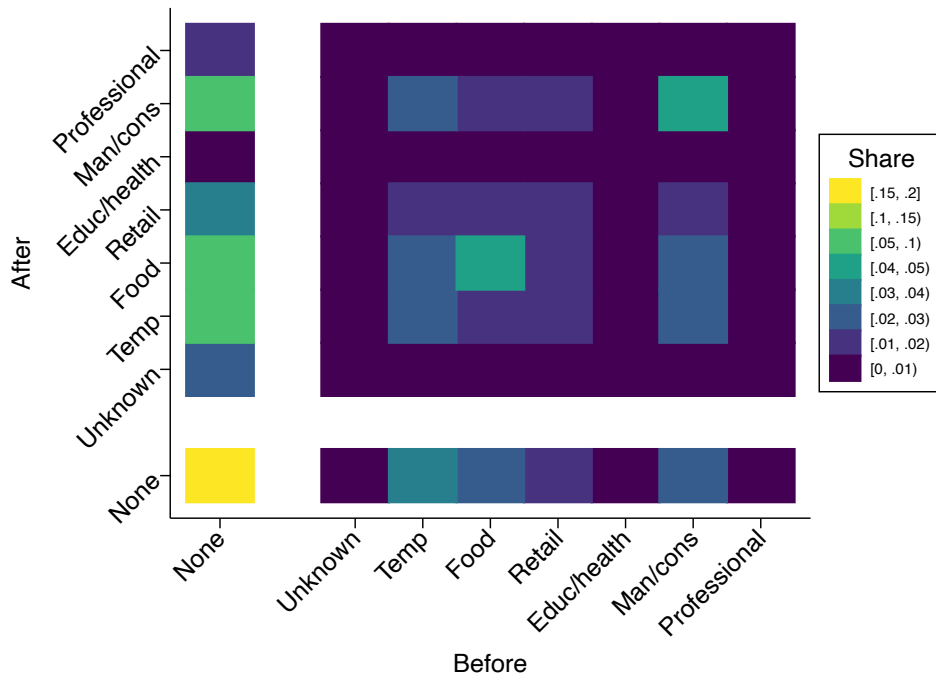
*Notes:* These figures present two-stage least squares estimates of the dynamic effect of incarceration on days of incarceration, an indicator for any W2 earnings, and total W2 earnings separately for defendants with vs. without any prior incarceration exposure at time their case was filed in Ohio. Effects are estimated in the year relative to filing date indicated by the x-axis. All coefficients are scaled to represent the effect of 12 months of incarceration. 95% confidence intervals based on standard errors clustered by defendant are shown in dotted lines.

Figure C.16: Industry transitions (NAICS of main W2 payer)

(a) Non-incarcerated defendants



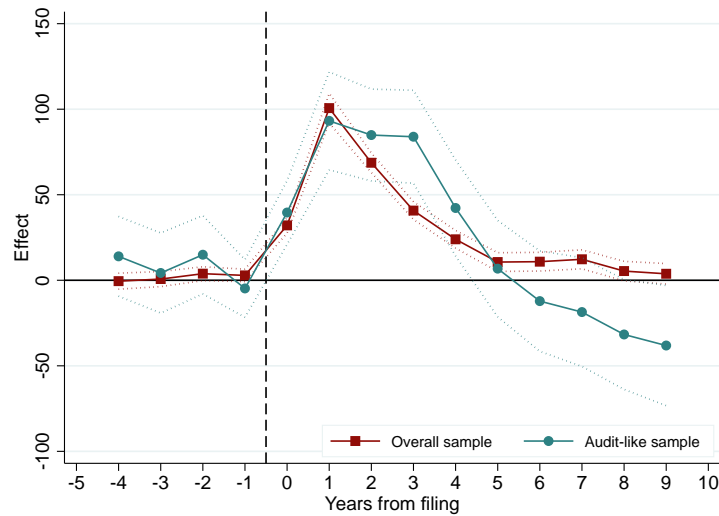
(b) Incarcerated defendants



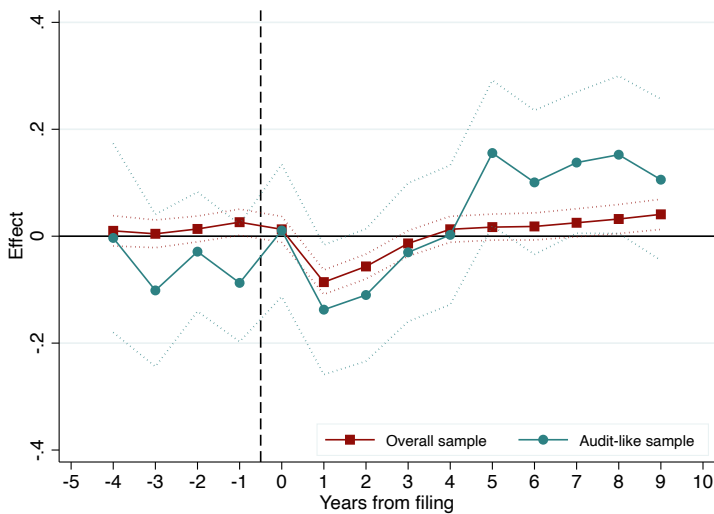
Notes: These figures represent transition matrices between industries for defendants, with results averaged between states. In each figure, entries sum to 1.

Figure C.17: Comparing main estimates to sample akin to Pager (2003) audit study sample

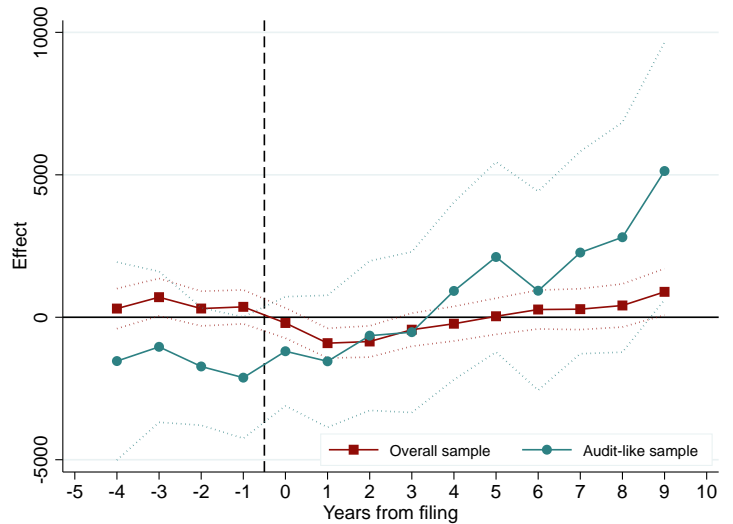
(a) Days incarcerated



(b) Any W2

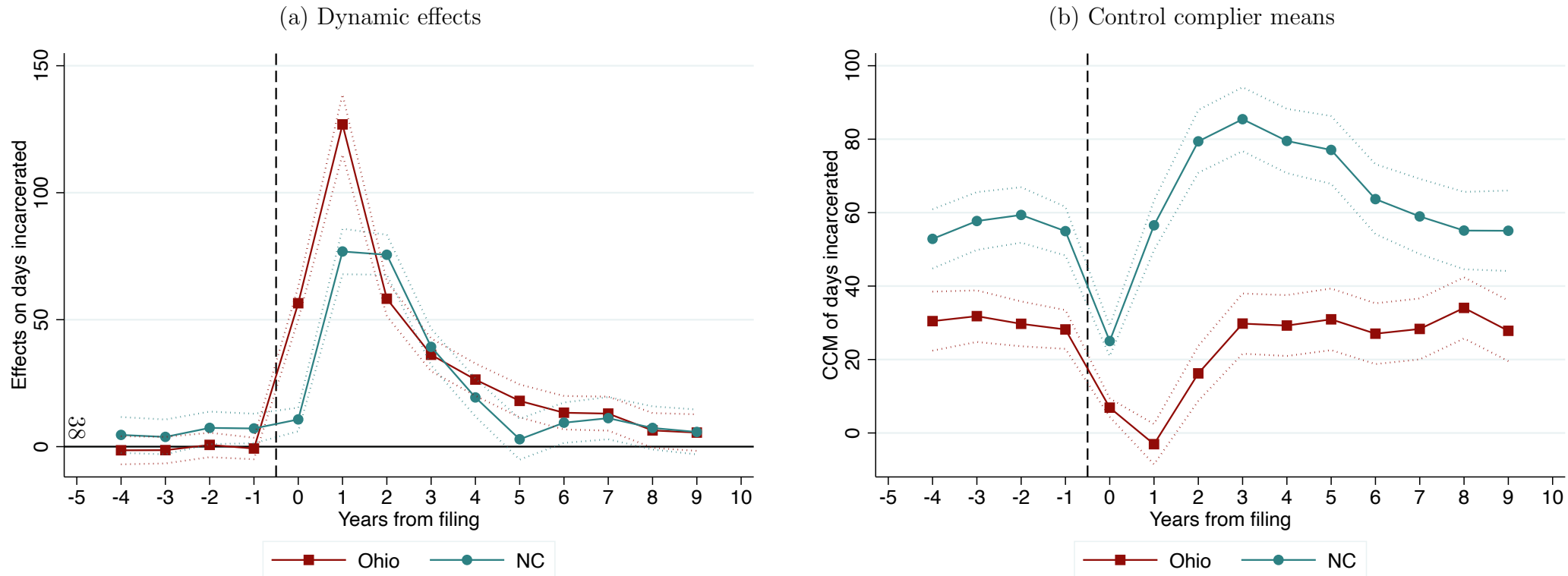


(c) W2 earnings



*Notes:* These figures present two-stage least squares estimates of the dynamic effect of incarceration on days of incarceration, an indicator for any W2 earnings, and total W2 earnings separately for the overall sample and for defendants approximately matching the inclusion criterion in Pager (2003). Effects are estimated in the year relative to filing date indicated by the x-axis. All coefficients are scaled to represent the effect of 12 months of incarceration. 95% confidence intervals based on standard errors clustered by defendant are shown in dotted lines.

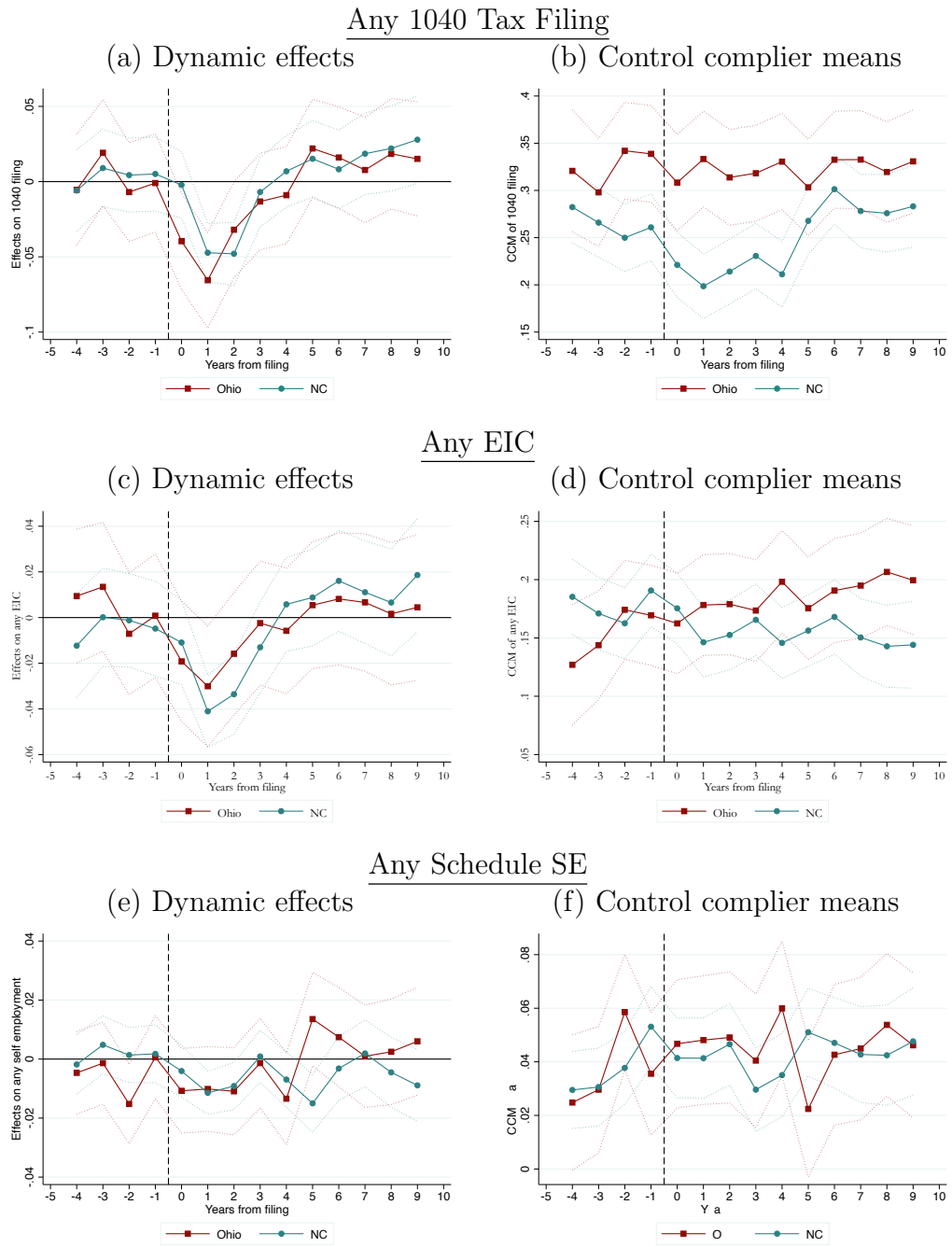
Figure C.18: Effects on days incarcerated, no controls



Notes: Panel (a) “Dynamic effects” reports two-stage least squares estimates of the dynamic effect of the indicated outcome (in this case days of incarceration). Effects are estimated in the year relative to filing date indicated by the x-axis. All coefficients are scaled to represent the effect of 12 months of incarceration. 95% confidence intervals based on standard errors clustered by defendant are shown in dotted lines. Panel (b) “Control complier means” present compliers’ estimated mean potential outcomes (in this case days incarcerated) when sentenced to zero months of incarceration on the charge. The compliers considered are individuals shifted from zero to some positive quantity of incarceration by the instruments in each state and are calculated as detailed in Section A.1. Untreated potential outcome means for compliers shifted from some incarceration to more are not identified. Means are estimated in the year relative to filing date indicated by the x-axis. 95% confidence intervals based on standard errors clustered by defendant are shown in dotted lines.

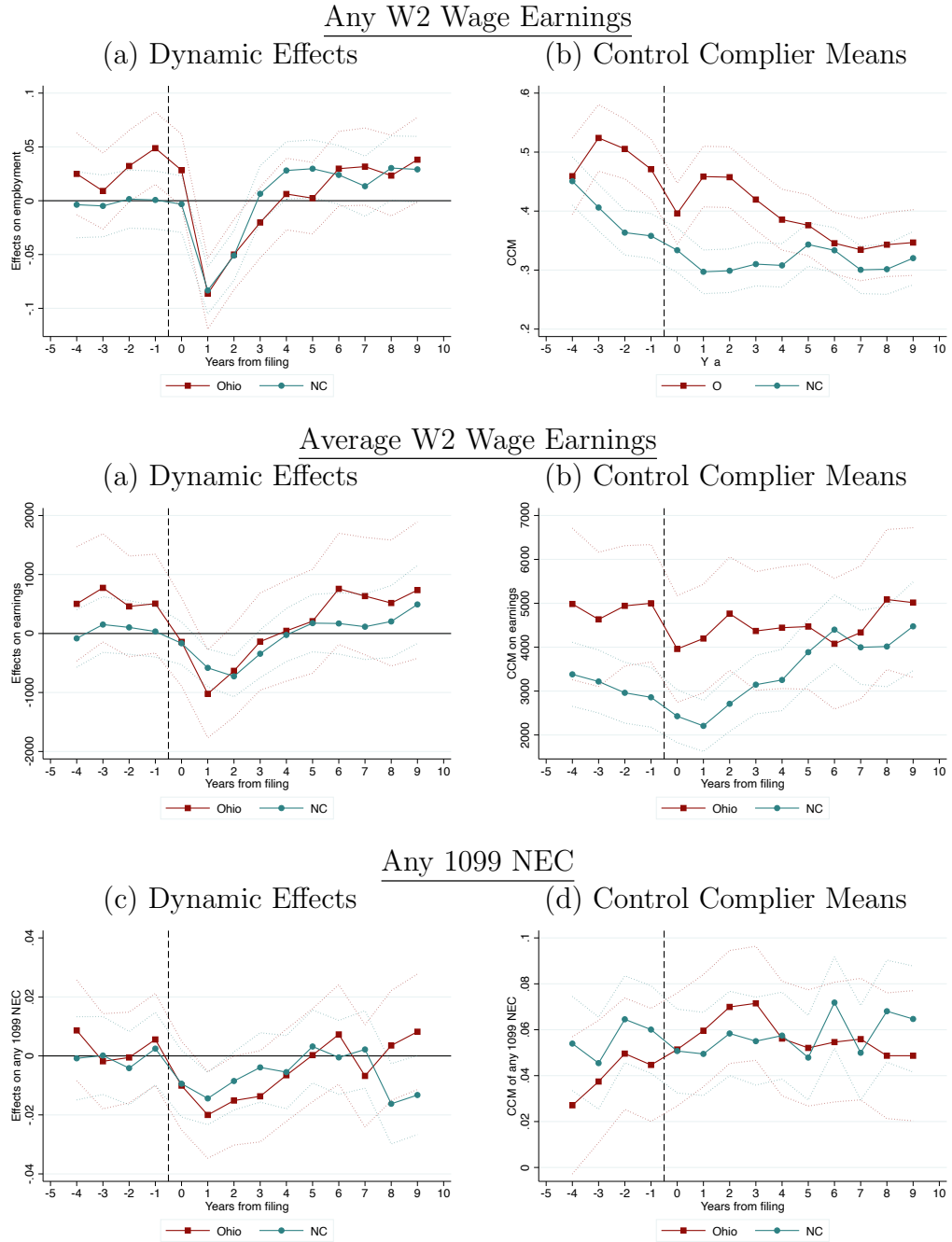


Figure C.19: Effects on self-reported tax filing outcomes, no controls



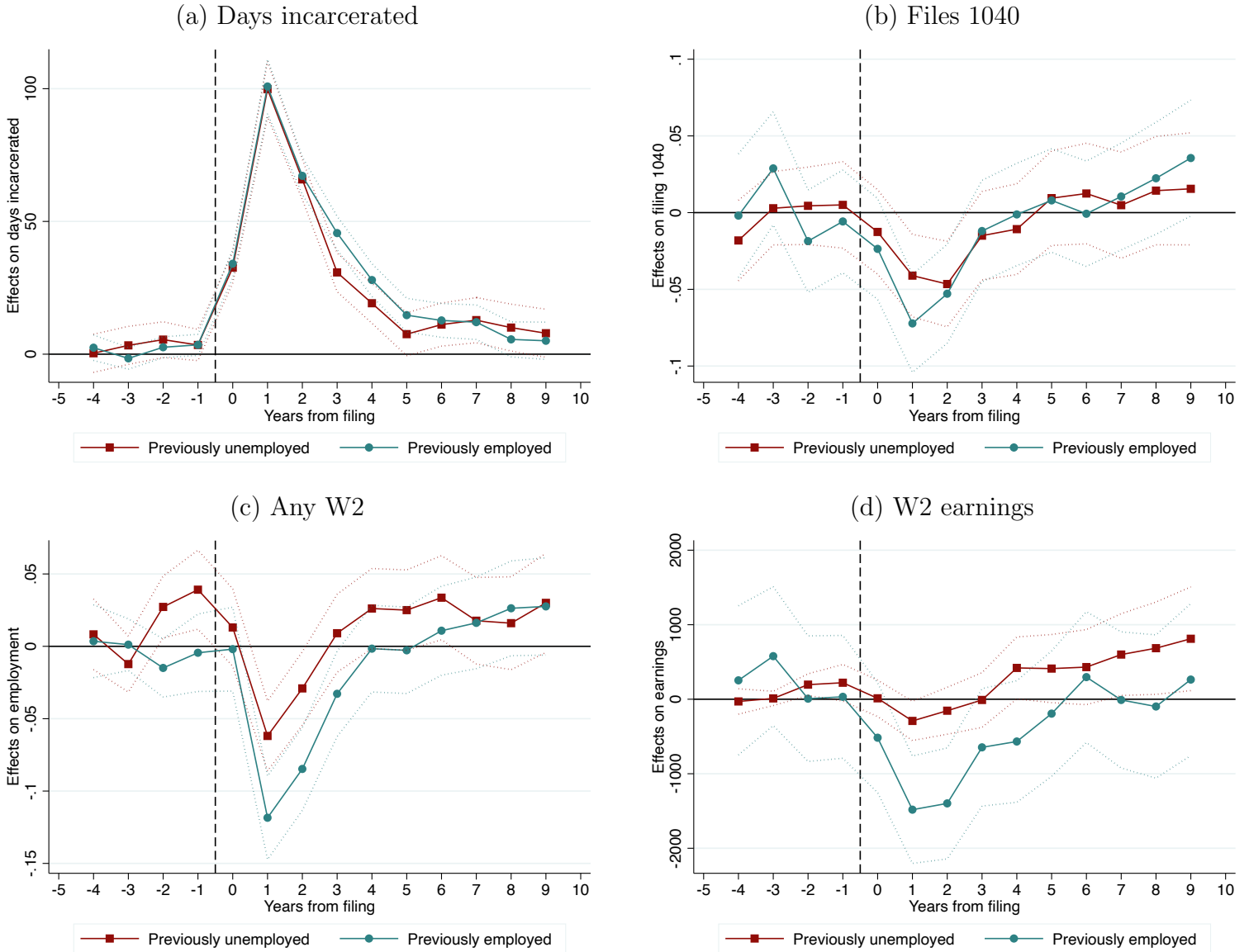
Notes: See notes for Figure 1

Figure C.20: Effects on firm-reported earnings measures, no controls



Notes: See notes for Figure 1.

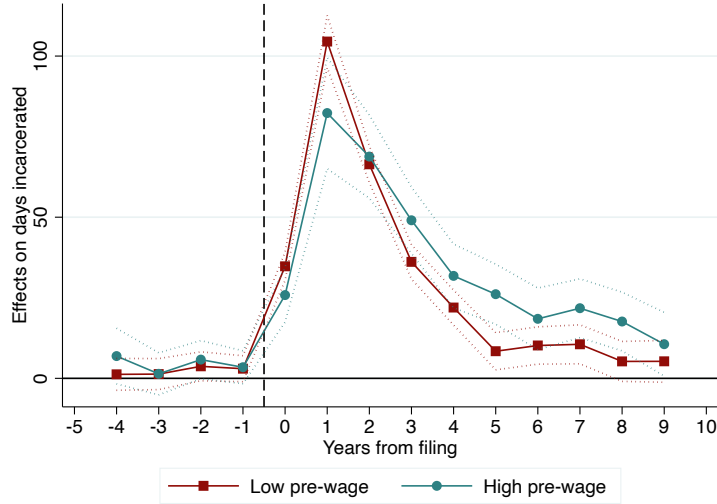
Figure C.21: Effects of incarceration by previous employment, no controls



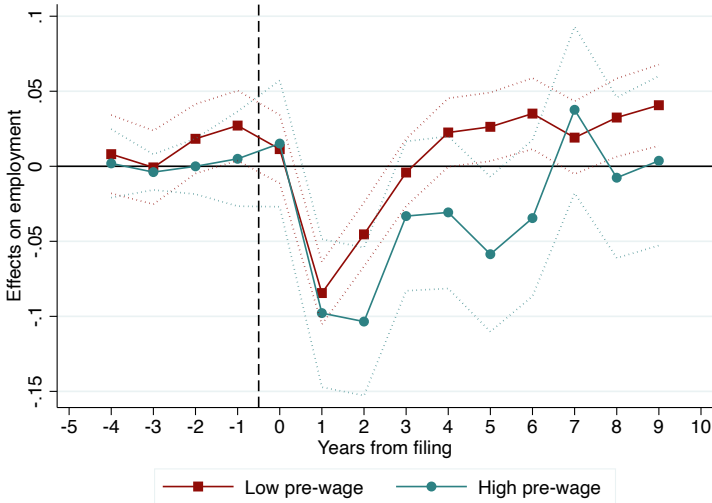
*Notes:* These figures present two-stage least squares estimates of the dynamic effect of incarceration on days of incarceration, an indicator for any W2 earnings, and total W2 earnings separately for defendants who were employed at least two out of the three years in the two to four years prior to case filing. Each estimate is the equally-weighted average of effects in Ohio and North Carolina estimated separately. Effects are estimated in the year relative to filing date indicated by the x-axis. All coefficients are scaled to represent the effect of 12 months of incarceration. 95% confidence intervals based on standard errors clustered by defendant are shown in dotted lines.

Figure C.22: Combined effects of incarceration by prior earnings, no controls

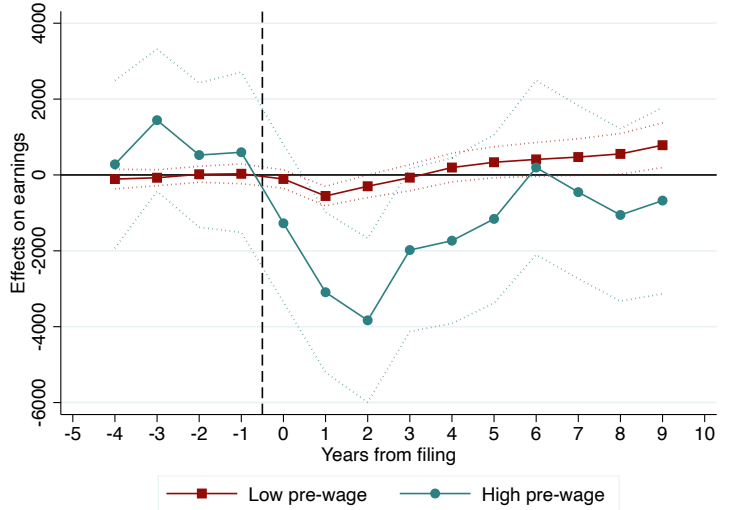
(a) Days incarcerated



(b) Any W2



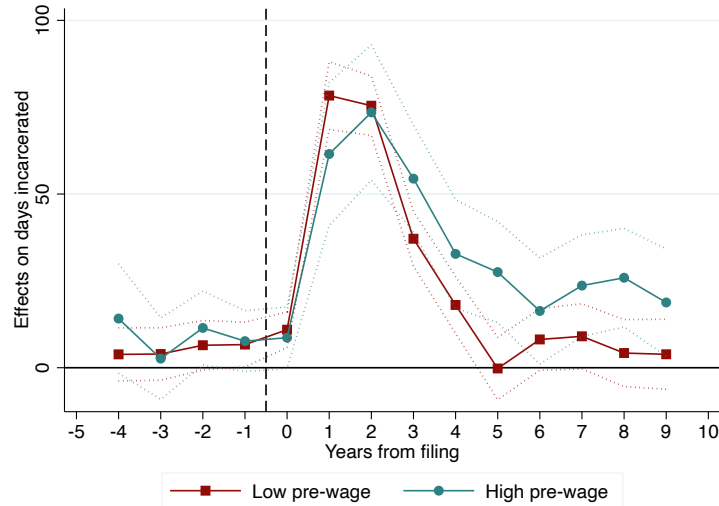
(c) W2 earnings



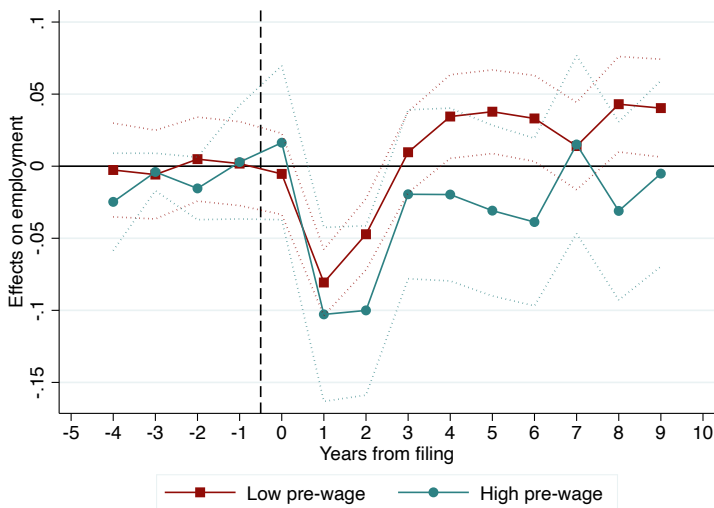
*Notes:* These figures present two-stage least squares estimates of the dynamic effect of incarceration on days of incarceration, an indicator for any W2 earnings, and total W2 earnings separately for defendants who earned above vs. below \$15,000 per year on average in the two to four years prior to their case filing date. Each estimate is the equally-weighted average of effects in Ohio and North Carolina estimated separately. Effects are estimated in the year relative to filing date indicated by the x-axis. All coefficients are scaled to represent the effect of 12 months of incarceration. 95% confidence intervals based on standard errors clustered by defendant are shown in dotted lines.

Figure C.23: North Carolina: Effects of incarceration by prior earnings, no controls

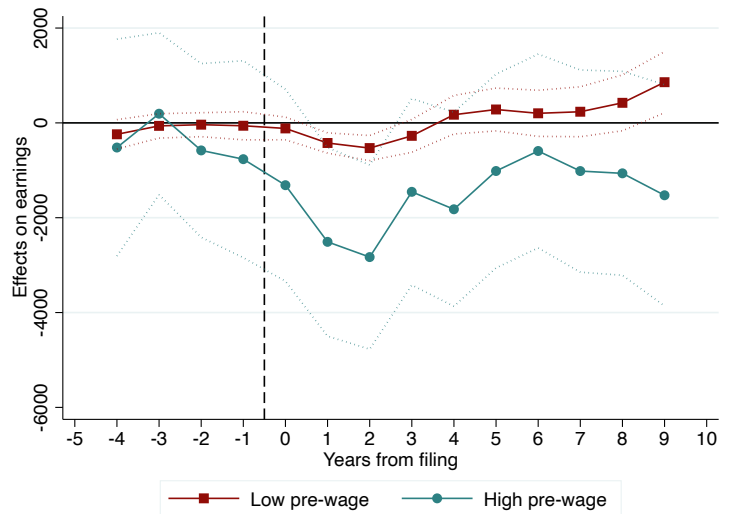
(a) Days incarcerated



(b) Any W2



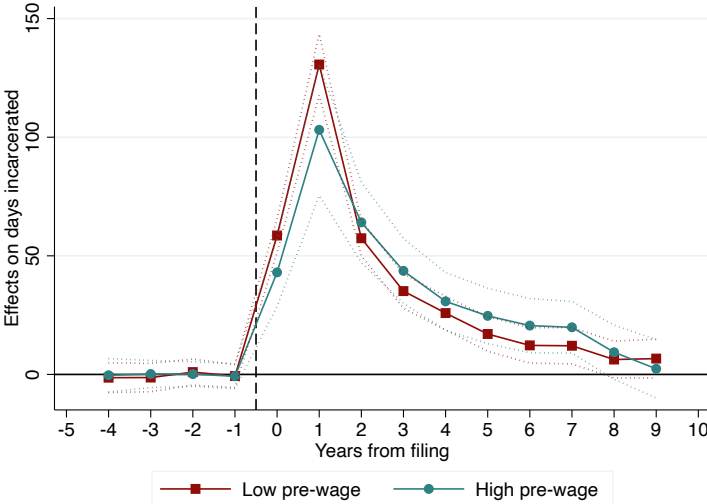
(c) W2 earnings



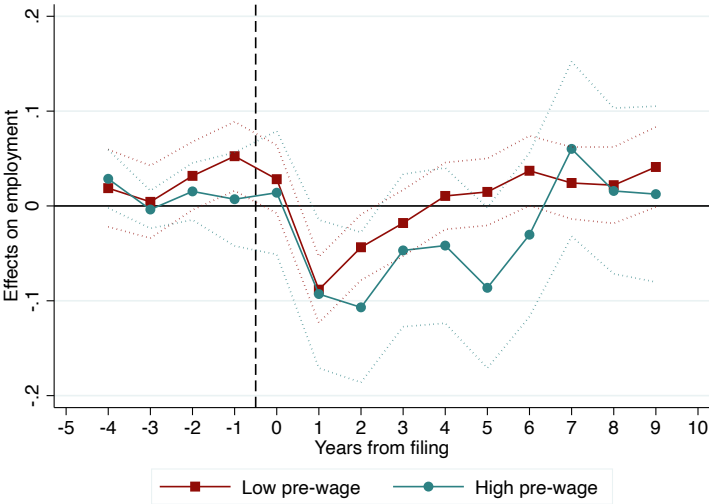
*Notes:* These figures present two-stage least squares estimates of the dynamic effect of incarceration on days of incarceration, an indicator for any W2 earnings, and total W2 earnings separately for defendants who earned above vs. below \$15,000 per year on average in the two to four years prior to their case filing date in North Carolina. Effects are estimated in the year relative to filing date indicated by the x-axis. All coefficients are scaled to represent the effect of 12 months of incarceration. 95% confidence intervals based on standard errors clustered by defendant are shown in dotted lines.

Figure C.24: Ohio: Effects of incarceration by prior earnings, no controls

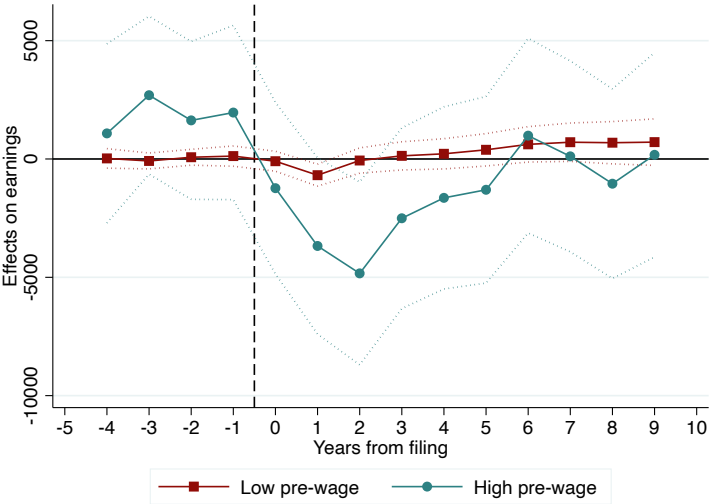
(a) Days incarcerated



(b) Any W2



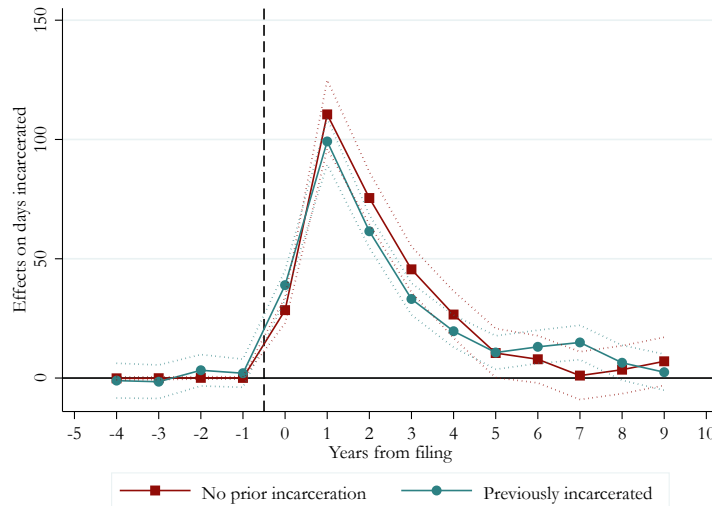
(c) W2 earnings



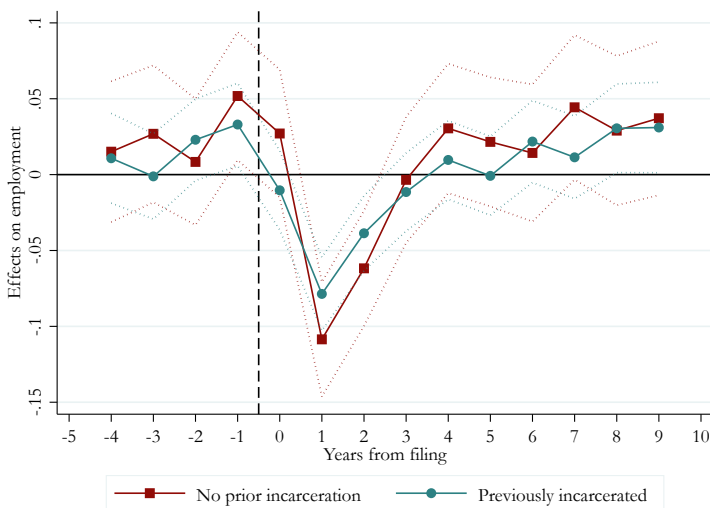
Notes: These figures present two-stage least squares estimates of the dynamic effect of incarceration on days of incarceration, an indicator for any W2 earnings, and total W2 earnings separately for defendants who earned above vs. below \$15,000 per year on average in the two to four years prior to their case filing date in Ohio. Effects are estimated in the year relative to filing date indicated by the x-axis. All coefficients are scaled to represent the effect of 12 months of incarceration. 95% confidence intervals based on standard errors clustered by defendant are shown in dotted lines.

Figure C.25: Combined effects of incarceration by whether previously incarcerated, no controls

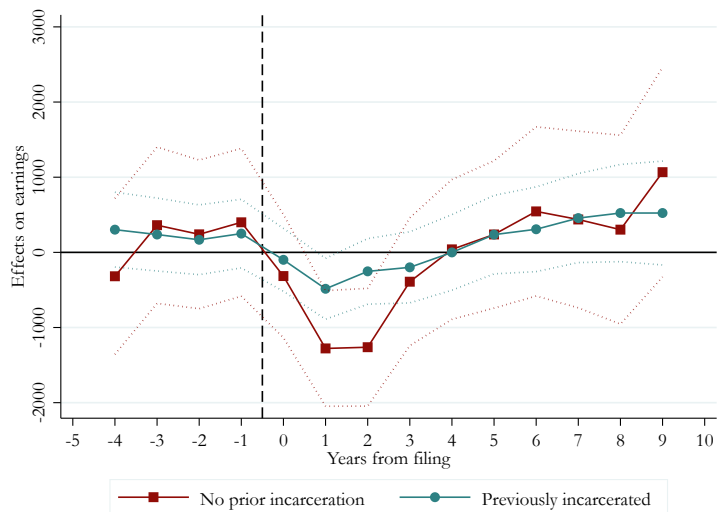
(a) Days incarcerated



(b) Any W2



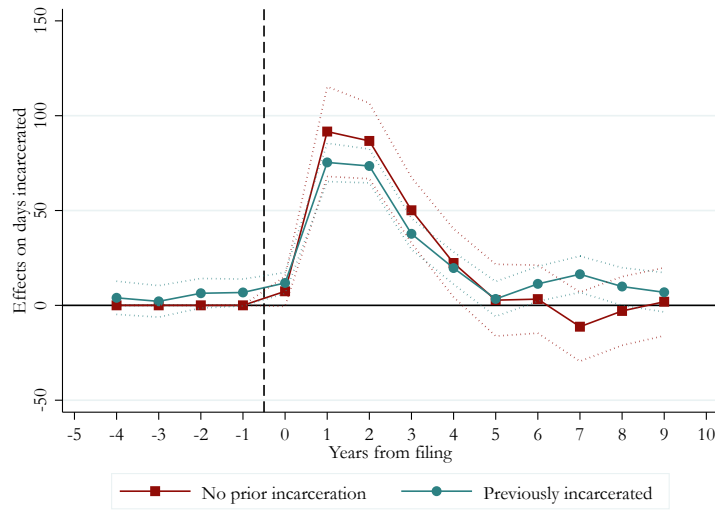
(c) W2 earnings



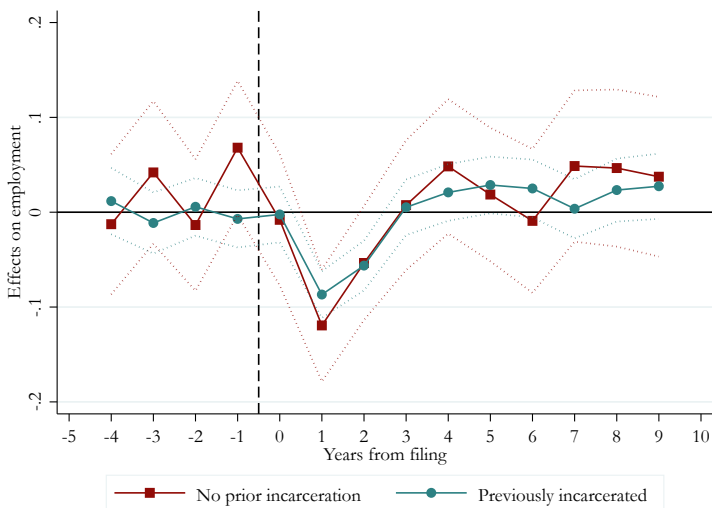
*Notes:* These figures present two-stage least squares estimates of the dynamic effect of incarceration on days of incarceration, an indicator for any W2 earnings, and total W2 earnings separately for defendants with vs. without any prior incarceration exposure at time their case was filed. Each estimate is the equally-weighted average of effects in Ohio and North Carolina estimated separately. Effects are estimated in the year relative to filing date indicated by the x-axis. All coefficients are scaled to represent the effect of 12 months of incarceration. 95% confidence intervals based on standard errors clustered by defendant are shown in dotted lines.

Figure C.26: North Carolina: Effects of incarceration by whether previously incarcerated, no controls

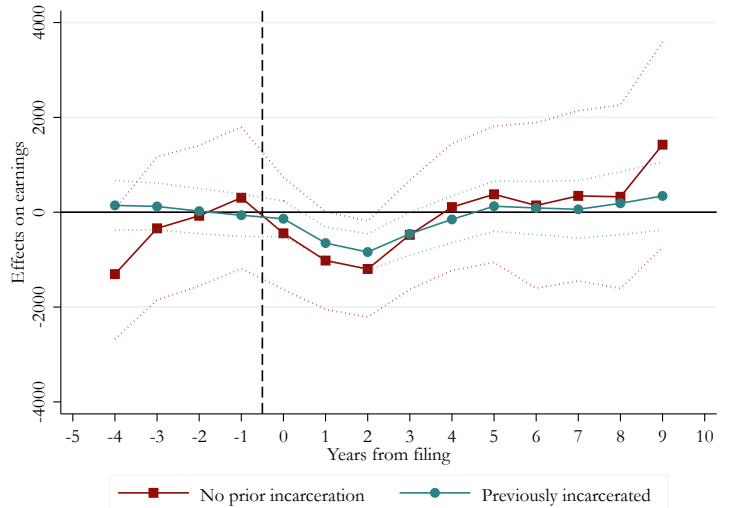
(a) Days incarcerated



(b) Any W2



(c) W2 earnings

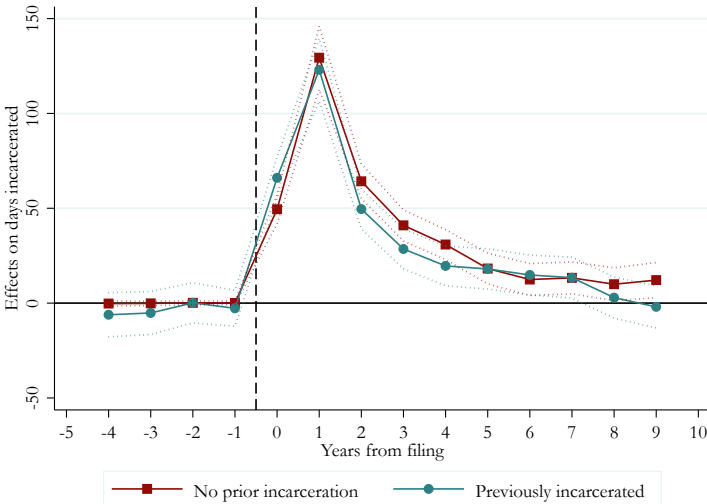


*Notes:* These figures present two-stage least squares estimates of the dynamic effect of incarceration on days of incarceration, an indicator for any W2 earnings, and total W2 earnings separately for defendants with vs. without any prior incarceration exposure at time their case was filed in North Carolina. Effects are estimated in the year relative to filing date indicated by the x-axis. All coefficients are scaled to represent the effect of 12 months of incarceration. 95% confidence intervals based on standard errors clustered by defendant are shown in dotted lines.

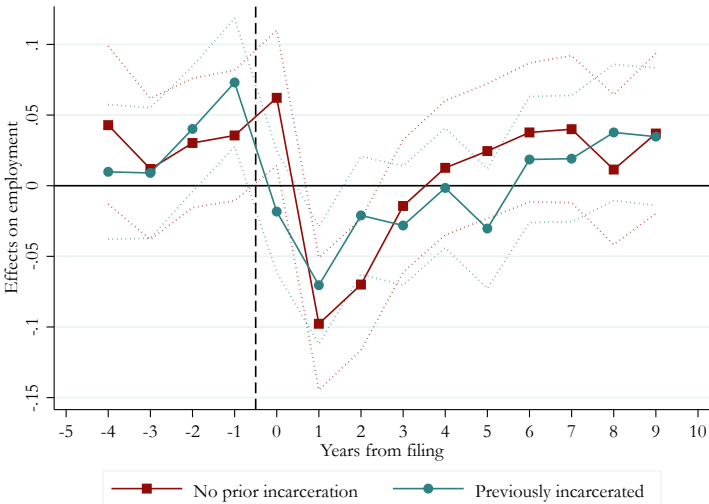


Figure C.27: Ohio: Effects of incarceration by whether previously incarcerated, no controls

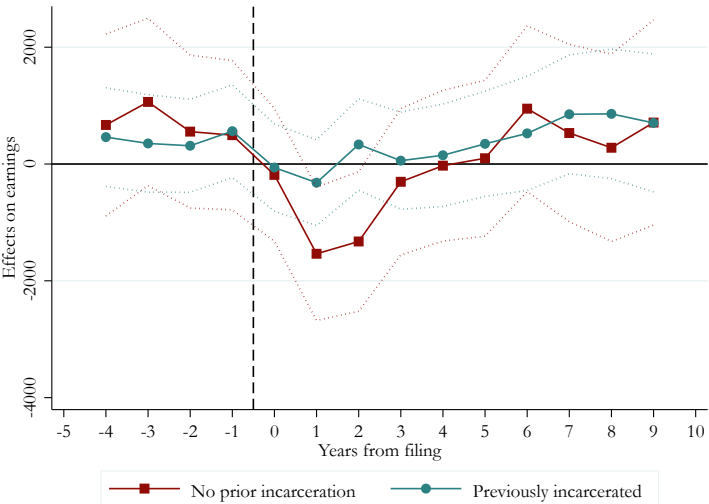
(a) Days incarcerated



(b) Any W2



(c) W2 earnings



Notes: These figures present two-stage least squares estimates of the dynamic effect of incarceration on days of incarceration, an indicator for any W2 earnings, and total W2 earnings separately for defendants with vs. without any prior incarceration exposure at time their case was filed in Ohio. Effects are estimated in the year relative to filing date indicated by the x-axis. All coefficients are scaled to represent the effect of 12 months of incarceration. 95% confidence intervals based on standard errors clustered by defendant are shown in dotted lines.

## D Additional sensitivity analysis

This appendix examines the sensitivity of our results, focusing on robustness to (i) alternative definitions of outcome variables, (ii) alternative definitions of the dimensions of heterogeneity, and (iii) the inclusion of controls.

### D.1 Alternative definition of the outcome variables

Both research designs find limited evidence that incarceration has lasting negative impacts on W-2 reported employment, 1040 filing, self-employment, as well as the amounts reported on these forms. However, the estimates for earnings are relatively noisy due to the significant dispersion in earnings in the sample. Columns (3) of [Table D.1](#) and [Table D.2](#), and column (7) of [Table D.3](#) transforms earnings using the inverse hyperbolic sine to reduce dispersion.<sup>24</sup> In each case, the results are quite similar to the filing results (column 1 in the first two tables, column 3 in the third), with positive coefficients driven by the North Carolina sample (0.032 [se=0.01] for W-2 filing and 0.315 [se=0.11] for  $\text{asinh}(\text{earnings})$  in North Carolina). This is likely because analysis in the transformed data picks up more of the extensive margin change from no employment to employment at relatively low wages. We thus interpret these findings as consistent with the W-2 filings, but where the long-run estimates are driven by shifting individuals into relatively low wage employment.

As an alternative to W-2 wage earnings, [Table D.4](#) and [Table D.5](#) examines another tax-filing measure of earnings: AGI reported on 1040 returns.<sup>25</sup> Results are similar to those for W-2 wages, with no statistically significant effect on AGI over the period 5-9 years after case filing but aggregate drops of over \$5000 in cumulative earnings over the first five years post-filing. There is no statistically significant effect on self-employment earnings either in particular periods or cumulatively, consistent with low rates of self-employment in this sample. We also find no long-run effect on income tax liability before refundable credits or on EIC claiming.

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<sup>24</sup>These tables omit controls for baseline characteristics – see [Table 7](#), [Table 8](#), and [Table 9](#) for versions with controls.

<sup>25</sup>See [Table 5](#) and [Table 6](#) for versions of these tables with controls.

Table D.1: Long-run effects on firm-reported earnings measures (no controls)

	(1)	(2)	(3)	(4)	(5)
	Any W2	W2 earnings	$\text{asinh}(\text{earnings})$	Any NEC NEC	Total 1099 NEC
Effect of 12 month sentence					
A. North Carolina ( $N = 306,254$ )					
5-9 years post-filing	0.032 (0.011) [0.339]	307.77 (243.84) [4316.79]	0.315 (0.11) [3.11]	-0.003 (0.004) [0.057]	59.802 (116.05) [652.76]
B. Ohio ( $N = 158,665$ )					
5-9 years post-filing	0.019 (0.014) [0.363]	627.89 (441.61) [4386.15]	0.215 (0.14) [3.34]	0.002 (0.006) [0.050]	7.634 (168.91) [608.43]
C. Average					
5-9 years post-filing	0.025 (0.009) [0.351]	467.829 (252.23) [4351.47]	0.265 (0.09) [3.22]	-0.001 (0.004) [0.053]	33.718 (102.47) [630.60]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on key labor market outcomes. Panel A reports effects for North Carolina. Panel B reports effects for Ohio. And Panel C reports equally-weighted average effects. All coefficients are scaled to represent the effect of 12 months of incarceration. All effects are estimated pooling the five to nine years post filing. Standard errors clustered by defendant are shown in parentheses. Estimated untreated mean outcomes for compliers shifted from zero to some incarceration are shown in square brackets and calculated as detailed in Section A.1.

Table D.2: Cumulative effects on firm-reported earnings measures (no controls)

	(1)	(2)	(3)	(4)
	Any W2	W2 earnings	$\text{asinh}(\text{earnings})$	Total 1099 NEC
Effect of 12 month sentence				
	A. North Carolina ( $N = 306,254$ )			
5 years post-filing	-0.073 (0.049) [1.891]	-1666.95 (955.46) [17628.62]	0.17 (0.14) [6.44]	-152.468 (506.77) [3618.40]
	B. Ohio ( $N = 158,665$ )			
5 years post-filing	-0.120 (0.074) [2.493]	-1682.15 (2157.89) [26203.91]	-0.01 (0.16) [7.19]	-353.476 (1027.42) [2946.30]
	C. Average			
5 years post-filing	-0.097 (0.045) [2.192]	-1674.55 (1179.98) [21916.27]	0.08 (0.10) [6.81]	-252.972 (572.80) [3282.35]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on cumulative firm-reported outcomes over the first five years after case filing. Panel A reports effects for North Carolina. Panel B reports effects for Ohio. And Panel C reports equally-weighted average effects. All coefficients are scaled to represent the effect of 12 months of incarceration. All effects estimated as of five years post filing. Standard errors clustered by defendant are shown in parentheses. Estimated untreated mean outcomes for compliers shifted from zero to some incarceration are shown in square brackets and calculated as detailed in Section A.1.

Table D.3: Estimates of heterogeneous long-run effects averaging both states (no controls)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
	Incarceration		Labor market activity					Tax filing			
Effect 5-9 years post filing	Days / year	Cumu. Days	Any W2	W2 earnings	Cumu. any	Cumu. earn	asinh(earn)	Filed 1040	Any EIC	Any SE	Any NEC
Gender											
Male	9.69 (2.26) [49.15]	270.02 (9.54) [264.92]	0.021 (0.009) [0.354]	281.59 (261.24) [4744.57]	-0.126 (0.045) [2.247]	-2504.89 (1219.52) [23880.59]	0.216 (0.092) [3.280]	0.018 (0.009) [0.326]	0.005 (0.007) [0.169]	0.000 (0.003) [0.037]	-0.001 (0.004) [0.056]
Female	9.63 (5.13) [26.44]	294.42 (21.39) [154.76]	0.058 (0.034) [0.350]	1969.57 (901.66) [1861.32]	0.086 (0.174) [1.918]	5027.59 (4318.76) [8675.87]	0.645 (0.344) [3.049]	0.038 (0.034) [0.384]	0.033 (0.032) [0.251]	0.003 (0.020) [0.086]	0.005 (0.011) [0.030]
Race											
Black	11.79 (2.85) [44.16]	269.65 (11.94) [253.52]	0.026 (0.012) [0.375]	349.94 (299.75) [4380.88]	-0.076 (0.059) [2.187]	-1101.58 (1381.50) [18726.80]	0.257 (0.119) [3.450]	0.014 (0.011) [0.334]	0.017 (0.009) [0.186]	0.003 (0.005) [0.042]	-0.006 (0.004) [0.037]
Not black	6.61 (3.03) [49.55]	272.80 (13.03) [243.25]	0.024 (0.014) [0.317]	589.63 (441.61) [4574.03]	-0.116 (0.068) [2.219]	-2852.83 (2084.63) [28745.02]	0.275 (0.140) [2.927]	0.032 (0.013) [0.319]	0.002 (0.010) [0.152]	-0.001 (0.006) [0.039]	0.005 (0.007) [0.080]
Previous incarceration											
Any	8.88 (2.84) [53.53]	261.40 (12.07) [300.17]	0.018 (0.011) [0.324]	323.30 (262.53) [3771.13]	-0.130 (0.053) [2.056]	-802.30 (1197.25) [18136.80]	0.183 (0.105) [2.944]	0.017 (0.010) [0.291]	0.009 (0.008) [0.149]	-0.003 (0.004) [0.039]	0.004 (0.004) [0.040]
None	8.09 (4.12) [34.06]	295.95 (14.31) [156.27]	0.036 (0.018) [0.381]	753.80 (494.54) [5149.50]	-0.095 (0.084) [2.426]	-2969.66 (2155.56) [27968.37]	0.376 (0.182) [3.550]	0.014 (0.017) [0.369]	0.015 (0.014) [0.208]	-0.002 (0.008) [0.045]	-0.009 (0.008) [0.066]
Employed at $t = -1$											
Employed	11.82 (2.62) [39.89]	277.64 (11.54) [224.61]	0.009 (0.012) [0.463]	265.03 (403.56) [7202.10]	-0.321 (0.057) [3.387]	-6085.75 (1960.21) [42452.62]	0.113 (0.125) [4.421]	0.012 (0.012) [0.388]	0.001 (0.010) [0.222]	-0.001 (0.005) [0.045]	-0.003 (0.005) [0.065]
Not employed	7.85 (3.29) [52.74]	269.89 (13.69) [275.47]	0.026 (0.012) [0.277]	342.92 (235.86) [2351.14]	-0.003 (0.053) [1.359]	447.11 (779.40) [7247.63]	0.265 (0.113) [2.417]	0.018 (0.011) [0.290]	0.014 (0.009) [0.136]	0.001 (0.005) [0.040]	0.001 (0.005) [0.045]
Earn above \$15k at $t = -1$											
Earn above	16.62 (4.07) [22.35]	293.86 (25.80) [106.19]	-0.017 (0.024) [0.634]	-565.03 (1201.73) [15871.91]	-0.542 (0.110) [4.830]	-17465.10 (6300.83) [110504.71]	-0.176 (0.263) [6.483]	0.019 (0.026) [0.505]	-0.006 (0.021) [0.228]	0.014 (0.011) [0.032]	0.008 (0.013) [0.081]
Earn below	8.08 (2.35) [49.93]	267.70 (9.46) [268.68]	0.032 (0.009) [0.318]	640.34 (205.55) [2955.41]	-0.029 (0.046) [1.889]	491.99 (741.09) [11652.37]	0.336 (0.092) [2.841]	0.022 (0.009) [0.308]	0.013 (0.007) [0.166]	-0.001 (0.004) [0.043]	-0.002 (0.004) [0.051]
Work mostly 2-4 years pre											
Mostly works	11.59 (2.54) [40.82]	168.81 (9.93) [34.37]	0.015 (0.012) [0.442]	95.82 (416.32) [6886.38]	-0.242 (0.060) [3.101]	-4805.08 (2043.90) [38168.20]	0.139 (0.129) [4.217]	0.007 (0.012) [0.386]	0.006 (0.010) [0.200]	0.001 (0.005) [0.047]	-0.001 (0.006) [0.072]
Mostly doesn't	7.76 (3.33) [51.96]	151.82 (10.39) [76.29]	0.026 (0.012) [0.280]	663.97 (236.24) [2175.31]	-0.018 (0.053) [1.447]	386.87 (816.80) [8336.48]	0.292 (0.112) [2.426]	0.026 (0.011) [0.282]	0.010 (0.009) [0.154]	0.002 (0.005) [0.037]	0.000 (0.005) [0.036]
Avg. earnings above \$15k 2-4 years pre											
Earn above	21.07 (3.76) [20.22]	154.21 (17.42) [-9.17]	-0.022 (0.022) [0.651]	-621.22 (1073.61) [16208.06]	-0.309 (0.103) [4.296]	-13071.00 (5668.36) [104968.13]	-0.222 (0.246) [6.687]	-0.016 (0.023) [0.576]	-0.010 (0.018) [0.249]	0.009 (0.010) [0.044]	-0.008 (0.012) [0.086]
Earn below	7.64 (2.36) [49.76]	161.77 (7.87) [62.22]	0.031 (0.010) [0.320]	564.81 (209.57) [3184.26]	-0.074 (0.046) [1.987]	-500.72 (779.04) [13721.81]	0.328 (0.093) [2.871]	0.025 (0.009) [0.302]	0.013 (0.007) [0.164]	-0.001 (0.004) [0.041]	0.000 (0.004) [0.051]
Previous felony charge											
Has prior felony	8.42 (4.03) [54.19]	281.02 (17.14) [336.84]	0.039 (0.015) [0.330]	673.98 (368.27) [3737.05]	-0.034 (0.075) [1.951]	-195.82 (1617.24) [17134.73]	0.401 (0.150) [2.963]	0.021 (0.014) [0.312]	0.014 (0.011) [0.161]	0.001 (0.006) [0.040]	0.009 (0.006) [0.033]
Doesn't have	9.07 (2.51) [41.65]	265.74 (10.41) [195.88]	0.012 (0.011) [0.365]	225.04 (321.74) [4842.82]	-0.130 (0.055) [2.370]	-2880.83 (1522.30) [25869.83]	0.130 (0.113) [3.408]	0.016 (0.011) [0.338]	0.005 (0.009) [0.181]	0.001 (0.005) [0.042]	-0.005 (0.005) [0.066]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes pooling the five to nine years post filing. All estimates are equally-weighted averages of effects in North Carolina and Ohio and are scaled to represent the effect of 12 months of incarceration. Each estimate splits the sample into the two groups indicated in the rows. Standard errors clustered by defendant are shown in parentheses. Estimated untreated mean outcomes for compliers shifted from zero to some incarceration are shown in square brackets and calculated as detailed in Section A.1.

Table D.4: Effects on self-reported tax filing outcomes (no controls)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Filed 1040	Adj. Gross	IITBRC	Any S. SE	Total S. SE	Any EIC	EIC	EIC deps.
Effect of 12 month sentence								
	A. North Carolina ( $N = 306,254$ )							
5-9 years post-filing	0.021 (0.010) [0.323]	20.789 (314.59) [4684.56]	-18.472 (28.15) [227.10]	-0.005 (0.004) [0.044]	-60.789 (53.27) [435.08]	0.013 (0.008) [0.152]	-3.322 (25.02) [305.24]	-0.003 (0.01) [0.13]
	B. Ohio ( $N = 158,665$ )							
5-9 years post-filing	0.021 (0.014) [0.333]	334.595 (638.99) [7005.97]	9.299 (79.78) [503.00]	0.007 (0.006) [0.039]	43.518 (115.48) [513.80]	0.006 (0.011) [0.195]	28.951 (41.12) [456.20]	0.004 (0.02) [0.21]
	C. Average							
5-9 years post-filing	0.021 (0.009) [0.328]	177.692 (356.12) [5845.27]	-4.586 (42.30) [365.05]	0.001 (0.004) [0.041]	-8.635 (63.59) [474.44]	0.010 (0.007) [0.173]	12.815 (24.07) [380.72]	0.000 (0.01) [0.17]

*Notes:* This table presents two-stage least squares estimates of the effect of incarceration on self-reported tax-filing outcomes. Panel A reports effects for North Carolina. Panel B reports effects for Ohio. And Panel C reports equally-weighted average effects. All coefficients are scaled to represent the effect of 12 months of incarceration. All effects are estimated pooling the five to nine years post filing. Standard errors clustered by defendant are shown in parentheses. Estimated untreated mean outcomes for compliers shifted from zero to some incarceration are shown in square brackets and calculated as detailed in Section A.1.

Table D.5: Cumulative effects on self-reported tax filing outcomes (no controls)

	(1)	(2)	(3)	(4)	(5)
	Filed 1040	Adj. Gross	IITBRC	Cumu. S SE	EIC
Effect of 12 month sentence					
	A. North Carolina ( $N = 306,254$ )				
5 years post-filing	-0.082 (0.045) [1.343]	-2722.180 (1419.38) [21191.84]	-148.268 (141.92) [1267.01]	-348.294 (245.32) [2555.63]	-307.207 (108.67) [1907.12]
	B. Ohio ( $N = 158,665$ )				
5 years post-filing	-0.137 (0.073) [1.907]	-5626.273 (3201.81) [41453.07]	-581.472 (386.95) [3013.36]	-398.277 (529.04) [2962.54]	-289.914 (208.17) [2447.77]
	C. Average				
5 years post-filing	-0.110 (0.043) [1.625]	-4174.227 (1751.16) [31322.46]	-364.870 (206.08) [2140.18]	-373.286 (291.58) [2759.08]	-298.561 (117.41) [2177.44]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on cumulative tax filing outcomes over the first five years after case filing. Panel A reports effects for North Carolina. Panel B reports effects for Ohio. And Panel C reports equally-weighted average effects. All coefficients are scaled to represent the effect of 12 months of incarceration. All effects estimated as of five years post filing. Standard errors clustered by defendant are shown in parentheses. Estimated untreated mean outcomes for compliers shifted from zero to some incarceration are shown in square brackets and calculated as detailed in Section A.1.

## D.2 Alternative definition of dimensions of heterogeneity

The effects of incarceration on an individual’s tax filing behavior will plausibly depend on their pre-existing attachment to the labor market and tax filing history – for example, the response of individuals with weaker prior labor force participation may be limited. In the paper, [Figure 4](#) split the sample by previous labor force participation, defined as having wage earnings in at least two of three years during the four years prior to case filing.<sup>26</sup> This measure includes many workers who are only marginally attached to the labor market with relatively short periods of employment and low earnings during those periods.

For robustness, we test a more stringent definition of attachment: having average W2 earnings of at least the minimum wage (\$15,000) in the two to four years prior to case filing ([Table D.10](#) in North Carolina and [Table D.12](#) in Ohio).<sup>27</sup> The results are quite similar to those in [Figure 4](#), with initial declines in W-2 filing and earnings immediately after incarceration for the more attached group, but smaller changes for the relatively less attached. Yet even though the above-minimum wage group is more strongly attached to the labor market to begin with, the negative effect on W-2 filing and earnings disappears entirely within 7 periods of case filing. While it is quite possible that individuals who earn much more than the minimum wage would suffer long-term negative labor market consequences from incarceration, there are few such individuals in the sample; even those earning above \$23,000 are only a tenth of the sample. This further reinforces the finding of a lack of scarring effects among individuals who are on the margin of incarceration.

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<sup>26</sup>For the corresponding point estimates, see [Table D.6](#) in North Carolina and [Table D.8](#) in Ohio, as well as [Table D.7](#) and [Table D.9](#) for the estimates when controls are included.

<sup>27</sup>For further robustness, [Table D.11](#) and [Table D.13](#) include controls, while [Table D.14](#) and [Table D.15](#) carry out the same analysis, but pool periods 5-9 after case filing for precision. Results are the same across each of these analyses.



Table D.6: North Carolina: heterogeneity by previous employment

	(1)			(2)			(3)			(4)			(5)			(6)		
	Lower attachment						Higher attachment											
	Days incar	Any W2	W2 earnings	Days incar	Any W2	W2 earnings	Days incar	Any W2	W2 earnings	Days incar	Any W2	W2 earnings	Days incar	Any W2	W2 earnings	Days incar	Any W2	W2 earnings
-4	2.807 (5.696) [64.895] [(6.286)]	0.010 (0.017) [0.197] [(0.022)]	-79.597 (104.667) [794.963] [(148.865)]	5.216 (3.961) [37.247] [(4.845)]	-0.027 (0.016) [0.877] [(0.021)]	-340.192 (459.446) [8425.517] [(678.525)]												
-3	7.005 (5.753) [78.316] [(6.411)]	-0.013 (0.013) [0.078] [(0.017)]	12.753 (55.564) [89.085] [(78.010)]	-2.086 (3.386) [33.257] [(4.147)]	0.000 (0.012) [0.916] [(0.016)]	59.790 (432.461) [8833.521] [(664.327)]												
-2	8.805 (5.316) [74.263] [(6.152)]	0.005 (0.014) [0.080] [(0.019)]	78.059 (93.827) [341.024] [(117.538)]	4.752 (3.316) [40.760] [(4.135)]	-0.019 (0.014) [0.816] [(0.020)]	-211.821 (421.912) [7879.065] [(636.131)]												
-1	8.501 (4.752) [67.738] [(5.186)]	0.022 (0.017) [0.164] [(0.023)]	165.606 (142.914) [637.227] [(220.787)]	6.288 (3.329) [38.531] [(4.111)]	-0.036 (0.018) [0.664] [(0.025)]	-404.132 (401.351) [6931.592] [(624.318)]												
0	10.518 (3.619) [26.953] [(3.076)]	0.014 (0.017) [0.183] [(0.023)]	124.586 (127.404) [681.856] [(210.583)]	10.355 (2.989) [22.189] [(2.776)]	-0.034 (0.019) [0.571] [(0.027)]	-653.542 (343.668) [5470.839] [(561.258)]												
1	81.320 (6.771) [61.397] [(4.877)]	-0.054 (0.014) [0.202] [(0.023)]	-118.340 (113.676) [751.927] [(227.238)]	68.575 (5.971) [50.499] [(4.811)]	-0.124 (0.017) [0.466] [(0.027)]	-1252.987 (310.462) [4793.047] [(543.049)]												
2	79.520 (5.851) [81.571] [(6.108)]	-0.026 (0.016) [0.221] [(0.024)]	-252.948 (152.476) [1258.594] [(276.878)]	70.489 (5.448) [76.421] [(6.124)]	-0.092 (0.017) [0.441] [(0.027)]	-1416.155 (317.085) [5221.591] [(569.284)]												
3	29.740 (5.452) [94.609] [(6.363)]	0.037 (0.018) [0.211] [(0.024)]	-52.935 (198.427) [1541.787] [(307.190)]	50.454 (4.849) [73.915] [(6.041)]	-0.034 (0.018) [0.468] [(0.027)]	-768.810 (357.510) [5734.227] [(596.934)]												
4	11.443 (5.831) [86.360] [(6.362)]	0.046 (0.019) [0.244] [(0.024)]	507.410 (234.465) [1585.025] [(332.109)]	29.049 (4.808) [70.101] [(6.118)]	0.001 (0.019) [0.424] [(0.027)]	-675.062 (389.043) [5892.994] [(620.150)]												
5	-6.560 (6.445) [86.415] [(6.879)]	0.041 (0.019) [0.258] [(0.024)]	386.883 (272.360) [2290.543] [(377.375)]	13.394 (5.050) [65.588] [(6.283)]	0.007 (0.019) [0.478] [(0.027)]	-174.322 (405.377) [6362.950] [(640.830)]												
6	7.799 (6.256) [73.616] [(7.281)]	0.051 (0.019) [0.251] [(0.025)]	257.652 (294.959) [2551.089] [(408.646)]	12.124 (5.089) [51.977] [(6.288)]	-0.008 (0.019) [0.454] [(0.028)]	37.591 (426.190) [6843.344] [(670.110)]												
7	10.065 (6.692) [60.745] [(7.988)]	0.021 (0.020) [0.251] [(0.027)]	345.276 (305.500) [2714.510] [(468.161)]	12.381 (5.215) [56.022] [(6.715)]	0.000 (0.019) [0.374] [(0.029)]	-113.272 (458.282) [5659.754] [(694.530)]												
8	8.913 (6.945) [53.091] [(8.232)]	0.019 (0.021) [0.271] [(0.030)]	320.272 (353.476) [3024.805] [(540.074)]	7.166 (5.285) [55.878] [(6.918)]	0.035 (0.020) [0.353] [(0.030)]	131.231 (481.594) [5347.224] [(720.792)]												
9	8.152 (7.018) [51.930] [(8.418)]	0.016 (0.023) [0.258] [(0.032)]	925.985 (402.345) [2840.283] [(580.489)]	5.072 (5.659) [56.373] [(7.358)]	0.035 (0.021) [0.394] [(0.032)]	137.762 (506.109) [6381.703] [(795.367)]												

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. All coefficients are scaled to represent the effect of 12 months of incarceration. The table reports an effect estimate and its standard error and the untreated complier mean and its standard error for the outcome listed in the column header in the period relative to initial filing date indicated in rows. Standard errors clustered by defendant are shown in parentheses.

Table D.7: North Carolina: heterogeneity by previous employment (with controls)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Lower attachment				Higher attachment			
	Days incar	Any W2	W2 earnings	Has 1040	Days incar	Any W2	W2 earnings	Has 1040
-4	1.189 (5.551) [64.954] [(6.232)]	0.018 (0.015) [0.188] [(0.021)]	-80.567 (95.794) [775.604] [(148.688)]	-0.0013515 (0.0112667) [0.1260184] [0.0180282]	3.548 (3.915) [39.177] [(4.902)]	-0.006 (0.015) [0.846] [(0.021)]	-14.746 (277.217) [8442.671] [(655.429)]	-0.010 (0.016) [0.560] [(0.029)]
-3	5.047 (5.607) [78.626] [(6.342)]	-0.011 (0.012) [0.079] [(0.016)]	2.726 (54.125) [118.600] [(78.780)]	0.0114402 (0.0096581) [0.1057286] [0.0162244]	-3.800 (3.338) [35.318] [(4.188)]	0.006 (0.012) [0.907] [(0.016)]	318.345 (209.405) [8882.685] [(640.511)]	0.005 (0.013) [0.549] [(0.028)]
-2	7.178 (5.167) [74.064] [(6.089)]	-0.007 (0.012) [0.099] [(0.018)]	27.938 (70.865) [382.627] [(114.529)]	-0.0019078 (0.0094521) [0.1320234] [0.017337]	2.735 (3.256) [43.060] [(4.155)]	-0.004 (0.012) [0.791] [(0.020)]	-13.851 (193.721) [7997.374] [(606.486)]	-0.001 (0.012) [0.478] [(0.027)]
-1	6.751 (4.584) [67.847] [(5.120)]	0.005 (0.011) [0.197] [(0.021)]	67.800 (76.471) [719.653] [(190.599)]	-0.0050705 (0.0112913) [0.1954388] [0.0193789]	3.525 (3.201) [41.357] [(4.103)]	0.000 (0.010) [0.609] [(0.025)]	-298.618 (216.017) [7231.073] [(601.793)]	0.001 (0.012) [0.420] [(0.027)]
0	9.396 (3.585) [27.243] [(3.080)]	-0.001 (0.016) [0.213] [(0.023)]	32.135 (116.234) [828.574] [(205.379)]	-0.0076037 (0.0136262) [0.1733113] [0.0212159]	9.083 (2.955) [23.248] [(2.799)]	-0.025 (0.017) [0.563] [(0.027)]	-699.707 (256.517) [5900.247] [(556.327)]	-0.013 (0.015) [0.352] [(0.027)]
1	80.840 (6.843) [61.214] [(4.910)]	-0.068 (0.014) [0.230] [(0.024)]	-228.537 (116.832) [975.343] [(228.204)]	-0.0317632 (0.0125023) [0.1464345] [0.0219257]	67.697 (5.982) [50.687] [(4.882)]	-0.121 (0.017) [0.465] [(0.028)]	-1345.078 (268.117) [5151.520] [(536.453)]	-0.077 (0.014) [0.327] [(0.026)]
2	78.494 (5.896) [81.357] [(6.146)]	-0.036 (0.016) [0.240] [(0.024)]	-349.818 (154.729) [1483.657] [(280.708)]	-0.0597997 (0.0141563) [0.2104311] [0.0222033]	68.843 (5.426) [76.993] [(6.185)]	-0.089 (0.017) [0.438] [(0.028)]	-1492.207 (281.899) [5538.708] [(563.871)]	-0.054 (0.015) [0.284] [(0.027)]
3	27.543 (5.479) [95.163] [(6.387)]	0.032 (0.018) [0.221] [(0.024)]	-124.509 (198.589) [1695.624] [(312.540)]	-0.0042767 (0.0156304) [0.1971976] [0.0226728]	48.544 (4.867) [75.287] [(6.112)]	-0.034 (0.018) [0.472] [(0.028)]	-852.818 (322.692) [6087.644] [(591.548)]	-0.021 (0.016) [0.326] [(0.027)]
4	8.960 (5.870) [87.545] [(6.395)]	0.040 (0.019) [0.251] [(0.024)]	419.037 (232.931) [1753.547] [(338.240)]	0.0102463 (0.0162993) [0.176846] [0.0228051]	26.846 (4.852) [72.074] [(6.194)]	0.000 (0.018) [0.427] [(0.028)]	-811.032 (358.668) [6292.999] [(615.951)]	-0.010 (0.017) [0.312] [(0.027)]
5	-9.024 (6.477) [87.324] [(6.884)]	0.035 (0.019) [0.264] [(0.024)]	290.592 (269.902) [2442.808] [(384.637)]	0.0295367 (0.0174376) [0.2332274] [0.023717]	11.034 (5.106) [67.682] [(6.359)]	0.005 (0.018) [0.484] [(0.028)]	-332.404 (373.749) [6787.367] [(638.769)]	-0.021 (0.017) [0.362] [(0.027)]
6	5.691 (6.247) [74.372] [(7.298)]	0.045 (0.019) [0.257] [(0.026)]	147.595 (292.927) [2685.974] [(414.481)]	0.0108321 (0.018051) [0.2766821] [0.0252296]	9.602 (5.136) [54.355] [(6.405)]	-0.012 (0.019) [0.461] [(0.029)]	-161.536 (394.118) [7339.366] [(672.348)]	-0.014 (0.018) [0.378] [(0.028)]
7	8.011 (6.657) [61.848] [(8.026)]	0.011 (0.020) [0.259] [(0.028)]	195.206 (302.698) [2885.734] [(475.205)]	0.0240616 (0.0190645) [0.273321] [0.0272859]	9.933 (5.252) [58.767] [(6.849)]	-0.002 (0.019) [0.378] [(0.030)]	-216.853 (424.946) [5997.824] [(700.341)]	-0.005 (0.018) [0.329] [(0.029)]
8	6.757 (6.919) [55.132] [(8.288)]	0.010 (0.021) [0.279] [(0.030)]	150.777 (349.058) [3235.397] [(548.692)]	0.0180471 (0.0201738) [0.2679977] [0.0295996]	4.722 (5.298) [59.090] [(7.029)]	0.034 (0.020) [0.355] [(0.031)]	41.507 (448.287) [5606.893] [(731.856)]	-0.001 (0.019) [0.339] [(0.030)]
9	5.938 (6.985) [53.679] [(8.481)]	0.007 (0.022) [0.268] [(0.032)]	789.556 (396.180) [3018.814] [(588.608)]	0.0533716 (0.0218341) [0.262391] [0.0313357]	2.334 (5.681) [59.945] [(7.478)]	0.031 (0.020) [0.403] [(0.032)]	-8.804 (466.211) [6734.448] [(799.517)]	-0.003 (0.019) [0.329] [(0.031)]

Notes: This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. All coefficients are scaled to represent the effect of 12 months of incarceration. The table reports an effect estimate and its standard error and the untreated complier mean and its standard error for the outcome listed in the column header in the period relative to initial filing date indicated in rows. Standard errors clustered by defendant are shown in parentheses.

Table D.8: Ohio: heterogeneity by previous employment

	(1)			(2)			(3)			(4)			(5)			(6)		
	Lower attachment						Higher attachment											
	Days incar	Any W2	W2 earnings	Days incar	Any W2	W2 earnings	Days incar	Any W2	W2 earnings	Days incar	Any W2	W2 earnings	Days incar	Any W2	W2 earnings	Days incar	Any W2	W2 earnings
-4	-2.150 (4.630) [46.484] [(7.162)]	0.007 (0.018) [0.118] [(0.032)]	19.288 (138.093) [271.591] [(257.833)]	-0.343 (2.858) [15.082] [(4.039)]	0.034 (0.020) [0.804] [(0.033)]	846.555 (912.510) [9781.425] [(1552.336)]												
-3	-0.385 (4.503) [45.507] [(6.397)]	-0.011 (0.015) [0.146] [(0.024)]	8.584 (80.741) [393.295] [(134.087)]	-1.097 (2.440) [17.755] [(3.215)]	0.003 (0.014) [0.922] [(0.021)]	1095.876 (846.758) [9310.103] [(1354.502)]												
-2	2.149 (4.333) [45.926] [(5.838)]	0.050 (0.017) [0.088] [(0.026)]	312.931 (115.104) [-38.917] [(184.583)]	0.452 (2.234) [15.111] [(2.735)]	-0.011 (0.015) [0.894] [(0.022)]	226.609 (749.230) [9649.936] [(1161.848)]												
-1	-1.597 (3.650) [41.303] [(4.841)]	0.056 (0.022) [0.221] [(0.034)]	276.543 (206.120) [730.661] [(327.467)]	0.718 (2.335) [16.383] [(2.753)]	0.027 (0.021) [0.703] [(0.031)]	468.535 (738.822) [8929.347] [(1142.400)]												
0	54.645 (4.701) [9.927] [(2.120)]	0.012 (0.021) [0.218] [(0.034)]	-100.918 (214.408) [1147.680] [(350.024)]	57.758 (4.547) [4.163] [(1.542)]	0.030 (0.023) [0.564] [(0.034)]	-379.968 (669.012) [6632.210] [(1048.679)]												
1	118.303 (8.173) [-0.020] [4.507]	-0.070 (0.021) [0.297] [(0.034)]	-464.440 (243.475) [1562.287] [(419.538)]	133.070 (8.634) [-5.726] [(3.478)]	-0.113 (0.024) [0.610] [(0.035)]	-1712.214 (666.885) [6678.229] [(1060.499)]												
2	52.131 (5.105) [24.027] [(6.191)]	-0.032 (0.021) [0.282] [(0.034)]	-55.539 (283.274) [1341.710] [(482.901)]	63.842 (4.705) [9.209] [(4.653)]	-0.077 (0.024) [0.619] [(0.036)]	-1380.774 (690.402) [7948.563] [(1096.926)]												
3	31.826 (5.040) [46.309] [(6.816)]	-0.019 (0.021) [0.280] [(0.034)]	32.567 (317.709) [1574.629] [(541.828)]	40.762 (4.228) [15.070] [(5.073)]	-0.032 (0.024) [0.552] [(0.036)]	-523.210 (720.148) [7054.333] [(1139.854)]												
4	26.917 (4.983) [37.713] [(6.935)]	0.007 (0.021) [0.240] [(0.034)]	332.078 (353.605) [1410.957] [(591.108)]	26.781 (4.056) [21.334] [(5.063)]	-0.005 (0.024) [0.522] [(0.037)]	-460.051 (735.836) [7335.072] [(1160.197)]												
5	21.614 (5.196) [36.563] [(7.086)]	0.009 (0.021) [0.256] [(0.034)]	435.339 (378.869) [1525.955] [(629.726)]	15.985 (4.045) [25.382] [(5.070)]	-0.012 (0.024) [0.488] [(0.037)]	-213.073 (756.517) [7212.338] [(1189.447)]												
6	14.473 (5.417) [32.941] [(6.950)]	0.016 (0.022) [0.245] [(0.035)]	604.377 (421.109) [1594.845] [(676.816)]	13.288 (4.038) [21.656] [(5.066)]	0.030 (0.025) [0.441] [(0.037)]	555.911 (787.869) [6556.130] [(1219.837)]												
7	15.557 (5.523) [32.146] [(7.049)]	0.015 (0.023) [0.270] [(0.034)]	853.340 (469.669) [1618.473] [(710.036)]	11.713 (4.104) [24.624] [(5.070)]	0.033 (0.026) [0.404] [(0.038)]	93.299 (812.057) [7011.335] [(1233.324)]												
8	11.093 (5.759) [37.742] [(7.250)]	0.013 (0.025) [0.237] [(0.036)]	1049.154 (524.015) [1534.810] [(771.037)]	3.963 (4.172) [30.419] [(5.016)]	0.018 (0.026) [0.442] [(0.038)]	-326.754 (854.632) [8367.537] [(1268.407)]												
9	7.607 (5.987) [30.120] [(7.314)]	0.044 (0.027) [0.215] [(0.038)]	696.355 (585.090) [2168.606] [(863.941)]	5.016 (4.395) [25.248] [(4.897)]	0.020 (0.027) [0.459] [(0.039)]	389.231 (909.783) [7559.598] [(1323.106)]												

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. All coefficients are scaled to represent the effect of 12 months of incarceration. The table reports an effect estimate and its standard error and the untreated complier mean and its standard error for the outcome listed in the column header in the period relative to initial filing date indicated in rows. Standard errors clustered by defendant are shown in parentheses.

Table D.9: Ohio: heterogeneity by previous employment (with controls)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Lower attachment				Higher attachment			
	Days incar	Any W2	W2 earnings	Has 1040	Days incar	Any W2	W2 earnings	Has 1040
-4	-3.300 (4.115) [47.682] [(6.648)]	0.001 (0.016) [0.125] [(0.030)]	-27.826 (122.408) [335.345] [(235.486)]	-0.0018196 (0.0126689) [0.0926445] [0.0253235]	-2.640 (2.671) [17.354] [(3.947)]	0.020 (0.018) [0.824] [(0.031)]	4.372 (434.100) [11074.540] [(973.711)]	-0.001 (0.020) [0.527] [(0.038)]
-3	-0.656 (3.999) [45.527] [(5.910)]	-0.021 (0.014) [0.159] [(0.024)]	-46.195 (76.806) [471.605] [(129.347)]	-0.0001662 (0.011167) [0.0984508] [0.0213278]	-2.747 (2.269) [19.190] [(3.107)]	-0.001 (0.013) [0.927] [(0.021)]	127.082 (320.319) [10710.910] [(777.258)]	0.045 (0.017) [0.478] [(0.031)]
-2	2.498 (3.820) [45.334] [(5.374)]	0.017 (0.014) [0.135] [(0.023)]	159.401 (88.377) [177.460] [(154.382)]	0.0056616 (0.0111575) [0.1144825] [0.0206407]	-0.635 (2.025) [15.865] [(2.612)]	-0.020 (0.013) [0.906] [(0.020)]	-208.848 (273.601) [10239.000] [(659.396)]	-0.028 (0.014) [0.549] [(0.026)]
-1	-1.336 (3.289) [40.910] [(4.510)]	-0.005 (0.013) [0.304] [(0.025)]	-100.468 (104.176) [1252.046] [(227.492)]	-0.0077442 (0.0131371) [0.2079043] [0.0238939]	-0.260 (2.112) [17.055] [(2.626)]	0.004 (0.012) [0.732] [(0.022)]	42.298 (329.177) [9511.998] [(706.787)]	-0.011 (0.015) [0.471] [(0.027)]
0	55.409 (4.765) [9.879] [(2.074)]	-0.023 (0.020) [0.268] [(0.032)]	-366.428 (188.134) [1538.688] [(318.766)]	-0.0574685 (0.0177479) [0.2360353] [0.0293215]	57.169 (4.489) [4.461] [(1.524)]	0.023 (0.020) [0.574] [(0.031)]	-663.924 (452.808) [7018.753] [(803.561)]	-0.040 (0.020) [0.393] [(0.033)]
1	119.566 (8.343) [0.011] [(4.489)]	-0.094 (0.020) [0.335] [(0.033)]	-694.225 (228.332) [1922.130] [(396.684)]	-0.0683259 (0.0187971) [0.2539692] [0.0307885]	133.045 (8.640) [-5.842] [(3.492)]	-0.119 (0.023) [0.619] [(0.034)]	-1977.366 (526.867) [7056.299] [(880.319)]	-0.077 (0.022) [0.421] [(0.034)]
2	51.910 (5.085) [24.179] [(6.116)]	-0.054 (0.020) [0.316] [(0.033)]	-295.289 (268.239) [1731.910] [(459.865)]	-0.04417 (0.0192503) [0.2372] [0.0312662]	64.066 (4.688) [8.865] [(4.643)]	-0.084 (0.023) [0.629] [(0.035)]	-1667.560 (564.142) [8376.894] [(938.329)]	-0.037 (0.022) [0.402] [(0.035)]
3	31.489 (4.997) [46.384] [(6.694)]	-0.039 (0.020) [0.311] [(0.033)]	-194.400 (305.069) [1940.436] [(520.228)]	-0.0423404 (0.0196062) [0.2569336] [0.0316855]	40.983 (4.185) [14.504] [(5.048)]	-0.038 (0.023) [0.560] [(0.035)]	-807.549 (598.048) [7482.896] [(991.308)]	-0.002 (0.022) [0.391] [(0.035)]
4	26.651 (4.938) [37.808] [(6.814)]	-0.012 (0.021) [0.270] [(0.033)]	83.494 (341.820) [1820.174] [(570.947)]	-0.0376698 (0.0200991) [0.2913501] [0.0322137]	27.069 (3.999) [20.762] [(5.018)]	-0.010 (0.023) [0.528] [(0.036)]	-727.426 (617.554) [7726.863] [(1019.756)]	0.003 (0.023) [0.384] [(0.035)]
5	21.685 (5.114) [36.394] [(6.930)]	-0.012 (0.021) [0.288] [(0.033)]	140.648 (366.559) [2000.147] [(610.814)]	0.0079435 (0.0204903) [0.2414599] [0.032753]	16.276 (3.978) [24.867] [(5.014)]	-0.017 (0.023) [0.494] [(0.036)]	-482.408 (646.242) [7618.181] [(1060.073)]	0.018 (0.023) [0.379] [(0.035)]
6	13.565 (5.366) [33.826] [(6.812)]	-0.004 (0.022) [0.274] [(0.033)]	314.715 (406.294) [2029.050] [(656.189)]	0.0150599 (0.0215354) [0.2593989] [0.0332197]	13.499 (3.993) [21.253] [(5.033)]	0.025 (0.024) [0.448] [(0.036)]	304.528 (678.281) [6929.951] [(1095.154)]	0.000 (0.023) [0.415] [(0.035)]
7	14.167 (5.483) [33.617] [(6.904)]	-0.007 (0.023) [0.300] [(0.033)]	521.746 (456.753) [2111.164] [(690.740)]	-0.0221642 (0.0229911) [0.3007013] [0.0336884]	11.824 (4.064) [24.351] [(5.038)]	0.028 (0.025) [0.409] [(0.037)]	-110.532 (706.747) [7324.646] [(1116.555)]	0.019 (0.024) [0.377] [(0.036)]
8	9.881 (5.714) [39.235] [(7.055)]	-0.012 (0.024) [0.272] [(0.035)]	707.535 (511.208) [2052.161] [(749.007)]	-0.0064767 (0.0241778) [0.2765691] [0.0349718]	4.383 (4.104) [29.780] [(4.950)]	0.013 (0.025) [0.450] [(0.037)]	-633.797 (749.953) [8798.678] [(1158.258)]	0.020 (0.025) [0.377] [(0.037)]
9	6.194 (5.966) [31.699] [(7.148)]	0.019 (0.026) [0.250] [(0.037)]	302.326 (570.797) [2709.066] [(834.816)]	-0.0132502 (0.0252198) [0.2757007] [0.0361953]	5.635 (4.332) [24.450] [(4.838)]	0.015 (0.026) [0.465] [(0.037)]	51.584 (802.756) [8018.231] [(1212.889)]	0.016 (0.025) [0.396] [(0.037)]

Notes: This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. All coefficients are scaled to represent the effect of 12 months of incarceration. The table reports an effect estimate and its standard error and the untreated complier mean and its standard error for the outcome listed in the column header in the period relative to initial filing date indicated in rows. Standard errors clustered by defendant are shown in parentheses.

Table D.10: North Carolina: heterogeneity by prior earnings

	(1) Prev earn below min wage			(4) Prev earn above min wage		
	Days incar	Any W2	W2 earnings	Days incar	Any W2	W2 earnings
-4	3.841 (3.899) [54.233] [(4.458)]	-0.003 (0.017) [0.415] [(0.022)]	-241.191 (157.673) [2331.976] [(221.147)]	14.146 (8.039) [31.913] [(7.521)]	-0.025 (0.017) [0.998] [(0.015)]	-520.297 (1166.580) [25532.770] [(1647.755)]
-3	3.935 (3.847) [61.552] [(4.410)]	-0.006 (0.016) [0.360] [(0.021)]	-63.202 (131.496) [1673.439] [(182.617)]	2.614 (5.989) [18.949] [(5.319)]	-0.004 (0.007) [1.006] [(0.016)]	192.939 (871.044) [27689.260] [(1412.310)]
-2	6.470 (3.626) [64.087] [(4.220)]	0.005 (0.015) [0.313] [(0.020)]	-38.235 (128.839) [1775.861] [(186.628)]	11.451 (5.429) [11.331] [(5.722)]	-0.015 (0.011) [0.989] [(0.016)]	-581.139 (934.659) [24169.100] [(1507.356)]
-1	6.658 (3.295) [60.037] [(3.711)]	0.002 (0.015) [0.316] [(0.020)]	-60.815 (151.392) [1864.338] [(234.776)]	7.647 (4.470) [4.720] [(5.155)]	0.003 (0.020) [0.901] [(0.029)]	-765.676 (1059.378) [20146.730] [(1748.236)]
0	10.940 (2.616) [26.372] [(2.297)]	-0.005 (0.014) [0.301] [(0.020)]	-117.157 (121.999) [1554.015] [(214.354)]	8.641 (4.523) [10.628] [(3.631)]	0.016 (0.027) [0.759] [(0.042)]	-1314.337 (1032.534) [15906.770] [(1724.980)]
1	78.344 (4.974) [58.701] [(3.711)]	-0.081 (0.012) [0.270] [(0.020)]	-424.715 (109.010) [1475.794] [(219.562)]	61.519 (10.509) [26.234] [(8.797)]	-0.103 (0.031) [0.680] [(0.048)]	-2508.899 (1014.458) [13379.980] [(1716.546)]
2	75.417 (4.354) [82.372] [(4.662)]	-0.047 (0.013) [0.282] [(0.020)]	-531.824 (135.401) [1972.434] [(253.063)]	73.502 (9.928) [36.969] [(11.232)]	-0.100 (0.030) [0.609] [(0.049)]	-2830.316 (990.936) [14227.420] [(1762.356)]
3	37.129 (4.021) [88.244] [(4.766)]	0.010 (0.014) [0.280] [(0.020)]	-273.578 (176.664) [2259.148] [(275.641)]	54.436 (7.856) [46.502] [(10.381)]	-0.019 (0.030) [0.696] [(0.048)]	-1454.354 (1002.978) [15257.470] [(1752.026)]
4	18.055 (4.183) [80.933] [(4.796)]	0.034 (0.015) [0.282] [(0.020)]	171.897 (207.282) [2296.520] [(300.081)]	32.772 (7.960) [55.283] [(10.931)]	-0.020 (0.031) [0.633] [(0.050)]	-1822.179 (1044.315) [16147.350] [(1796.032)]
5	-0.226 (4.581) [79.669] [(5.110)]	0.038 (0.015) [0.320] [(0.020)]	282.085 (230.383) [2951.405] [(329.849)]	27.528 (7.433) [46.563] [(9.767)]	-0.031 (0.030) [0.629] [(0.050)]	-1015.254 (1042.307) [16253.670] [(1804.002)]
6	8.136 (4.517) [66.810] [(5.299)]	0.033 (0.015) [0.301] [(0.021)]	201.863 (248.032) [3597.338] [(357.780)]	16.330 (7.799) [31.184] [(8.978)]	-0.039 (0.030) [0.673] [(0.052)]	-593.309 (1042.937) [14592.000] [(1816.213)]
7	9.039 (4.785) [63.012] [(5.737)]	0.014 (0.015) [0.280] [(0.022)]	234.630 (268.759) [3284.881] [(388.120)]	23.641 (7.470) [21.749] [(9.682)]	0.015 (0.032) [0.535] [(0.053)]	-1016.427 (1087.858) [12922.110] [(1844.384)]
8	4.223 (4.921) [59.715] [(5.923)]	0.043 (0.017) [0.277] [(0.023)]	422.557 (300.460) [3352.742] [(430.580)]	25.896 (7.227) [14.687] [(9.511)]	-0.031 (0.032) [0.560] [(0.055)]	-1063.940 (1097.205) [11986.210] [(1908.459)]
9	3.863 (5.143) [58.316] [(6.160)]	0.040 (0.017) [0.288] [(0.025)]	857.534 (328.513) [3335.122] [(474.565)]	18.776 (7.900) [30.576] [(10.427)]	-0.005 (0.033) [0.607] [(0.057)]	-1527.189 (1190.897) [14919.120] [(2055.447)]

Notes: This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. All coefficients are scaled to represent the effect of 12 months of incarceration. The table reports an effect estimate and its standard error and the untreated complier mean and its standard error for the outcome listed in the column header in the period relative to initial filing date indicated in rows. Standard errors clustered by defendant are shown in parentheses.

Table D.11: North Carolina: heterogeneity by prior earnings (with controls)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Prev earn below min wage			Prev earn above min wage				
	Days incar	Any W2	W2 earnings	Has 1040	Days incar	Any W2	W2 earnings	Has 1040
-4	2.408 (3.802) [54.765] [(4.437)]	0.008 (0.012) [0.411] [(0.021)]	-77.769 (121.002) [2175.477] [(205.204)]	-0.0090685 (0.0103332) [0.2599189] [0.0181415]	9.247 (7.525) [35.836] [(7.842)]	-0.014 (0.016) [0.980] [(0.017)]	157.786 (895.278) [25773.330] [(2006.013)]	0.003 (0.021) [0.860] [(0.048)]
-3	2.236 (3.732) [62.446] [(4.378)]	-0.001 (0.010) [0.361] [(0.020)]	44.861 (94.565) [1560.002] [(170.403)]	0.0081186 (0.0089008) [0.23689] [0.0172925]	-0.418 (5.891) [21.882] [(5.559)]	-0.002 (0.007) [1.000] [(0.017)]	743.172 (551.734) [28213.210] [(1727.480)]	0.006 (0.014) [0.841] [(0.044)]
-2	4.616 (3.506) [65.000] [(4.176)]	0.001 (0.010) [0.328] [(0.019)]	36.747 (87.772) [1744.982] [(172.327)]	0.0035358 (0.0084113) [0.2250305] [0.0167708]	9.042 (5.250) [13.525] [(5.841)]	-0.011 (0.010) [0.973] [(0.019)]	-384.057 (540.855) [25287.260] [(1813.380)]	-0.018 (0.015) [0.837] [(0.048)]
-1	4.622 (3.169) [61.033] [(3.665)]	-0.008 (0.011) [0.340] [(0.019)]	-12.356 (99.325) [1902.414] [(210.801)]	-0.003167 (0.0094496) [0.2505504] [0.0170864]	4.819 (4.330) [7.704] [(5.326)]	0.017 (0.012) [0.858] [(0.036)]	-604.003 (556.612) [21765.010] [(2084.915)]	0.008 (0.018) [0.766] [(0.054)]
0	9.779 (2.588) [26.868] [(2.299)]	-0.015 (0.013) [0.326] [(0.020)]	-137.900 (110.658) [1689.376] [(207.017)]	-0.012939 (0.010931) [0.220216] [0.0177693]	6.862 (4.461) [12.257] [(3.777)]	0.017 (0.025) [0.767] [(0.046)]	-1413.148 (754.261) [17732.650] [(1958.021)]	0.012 (0.026) [0.583] [(0.056)]
1	77.483 (5.000) [58.532] [(3.738)]	-0.090 (0.012) [0.294] [(0.020)]	-482.908 (108.779) [1677.602] [(217.618)]	-0.0495758 (0.0101338) [0.2057032] [0.0179394]	59.303 (10.427) [28.501] [(9.262)]	-0.108 (0.030) [0.688] [(0.051)]	-2865.628 (856.916) [14933.550] [(1869.483)]	-0.097 (0.028) [0.480] [(0.056)]
2	73.944 (4.361) [82.351] [(4.684)]	-0.054 (0.012) [0.302] [(0.020)]	-576.553 (134.780) [2173.459] [(253.221)]	-0.0487763 (0.0112145) [0.2075383] [0.0181048]	71.666 (9.837) [39.127] [(11.699)]	-0.110 (0.029) [0.623] [(0.052)]	-3258.656 (851.662) [15794.400] [(1900.213)]	-0.103 (0.028) [0.572] [(0.055)]
3	35.075 (4.029) [89.030] [(4.786)]	0.004 (0.014) [0.296] [(0.020)]	-319.157 (172.474) [2447.827] [(277.101)]	-0.013431 (0.0123331) [0.2313199] [0.0184727]	52.452 (7.832) [49.383] [(10.795)]	-0.027 (0.029) [0.713] [(0.051)]	-1834.797 (872.305) [16837.230] [(1884.002)]	-0.012 (0.029) [0.505] [(0.055)]
4	15.690 (4.200) [82.345] [(4.823)]	0.028 (0.014) [0.294] [(0.020)]	106.620 (201.854) [2485.237] [(302.569)]	0.0023148 (0.0127789) [0.209823] [0.018495]	30.475 (7.956) [57.932] [(11.267)]	-0.025 (0.030) [0.651] [(0.052)]	-2240.958 (931.990) [17770.360] [(1913.704)]	-0.014 (0.029) [0.492] [(0.055)]
5	-2.772 (4.611) [81.195] [(5.130)]	0.031 (0.014) [0.330] [(0.020)]	209.156 (224.787) [3125.983] [(332.880)]	0.0137518 (0.0134) [0.2567256] [0.0190153]	25.829 (7.394) [48.889] [(10.156)]	-0.034 (0.030) [0.647] [(0.052)]	-1353.838 (939.000) [17780.950] [(1916.075)]	-0.043 (0.029) [0.584] [(0.055)]
6	5.660 (4.530) [68.333] [(5.335)]	0.028 (0.015) [0.309] [(0.021)]	136.416 (243.442) [3728.246] [(360.577)]	0.007531 (0.0138821) [0.2900756] [0.0198883]	14.825 (7.835) [32.888] [(9.247)]	-0.043 (0.029) [0.698] [(0.054)]	-1037.662 (926.094) [16689.290] [(1936.718)]	-0.040 (0.029) [0.590] [(0.056)]
7	6.480 (4.780) [64.849] [(5.788)]	0.008 (0.015) [0.286] [(0.022)]	161.811 (262.555) [3402.891] [(392.465)]	0.018085 (0.0144355) [0.2716074] [0.0211131]	22.535 (7.470) [22.542] [(9.874)]	0.012 (0.030) [0.553] [(0.055)]	-1250.069 (955.740) [14396.890] [(1980.247)]	-0.034 (0.030) [0.520] [(0.057)]
8	1.697 (4.915) [62.234] [(5.972)]	0.037 (0.016) [0.285] [(0.023)]	354.222 (292.620) [3485.848] [(437.197)]	0.020547 (0.0153142) [0.2749893] [0.0225131]	23.796 (7.133) [17.900] [(9.679)]	-0.037 (0.031) [0.582] [(0.058)]	-1441.952 (985.024) [13624.580] [(2061.903)]	-0.041 (0.030) [0.493] [(0.059)]
9	1.176 (5.132) [61.013] [(6.212)]	0.033 (0.017) [0.296] [(0.025)]	779.559 (319.055) [3435.037] [(481.988)]	0.0358656 (0.0159619) [0.2551807] [0.0236131]	17.443 (7.767) [32.978] [(10.753)]	-0.017 (0.032) [0.646] [(0.059)]	-1934.658 (1056.846) [16573.580] [(2164.633)]	-0.043 (0.031) [0.576] [(0.060)]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. All coefficients are scaled to represent the effect of 12 months of incarceration. The table reports an effect estimate and its standard error and the untreated complier mean and its standard error for the outcome listed in the column header in the period relative to initial filing date indicated in rows. Standard errors clustered by defendant are shown in parentheses.

Table D.12: Ohio: heterogeneity by prior earnings

	(1) Prev earn below min wage			(2) Prev earn above min wage		
	Days incar	Any W2	W2 earnings	Days incar	Any W2	W2 earnings
-4	-1.376 (3.198) [32.171] [(4.503)]	0.019 (0.021) [0.412] [(0.034)]	24.313 (210.047) [2308.512] [(354.526)]	-0.350 (3.591) [14.198] [(6.059)]	0.029 (0.016) [0.922] [(0.032)]	1080.758 (1930.914) [32137.040] [(4433.147)]
-3	-1.316 (3.047) [34.059] [(3.970)]	0.004 (0.020) [0.471] [(0.030)]	-84.040 (170.909) [2345.911] [(271.574)]	0.165 (2.911) [11.982] [(4.513)]	-0.004 (0.010) [1.007] [(0.021)]	2694.673 (1701.713) [28347.560] [(3505.391)]
-2	0.981 (2.803) [32.171] [(3.457)]	0.032 (0.018) [0.455] [(0.027)]	73.261 (171.047) [2122.506] [(262.794)]	0.145 (2.635) [9.358] [(4.107)]	0.015 (0.015) [0.923] [(0.029)]	1630.409 (1701.786) [28421.130] [(3328.301)]
-1	-0.697 (2.466) [30.794] [(2.986)]	0.052 (0.019) [0.417] [(0.027)]	121.407 (218.368) [2414.586] [(334.421)]	-0.786 (2.679) [7.276] [(4.306)]	0.007 (0.025) [0.916] [(0.049)]	1961.072 (1877.382) [26211.260] [(3663.898)]
0	58.558 (3.624) [7.715] [(1.402)]	0.028 (0.018) [0.337] [(0.027)]	-95.205 (214.563) [1818.650] [(339.489)]	43.012 (7.270) [0.263] [(2.850)]	0.014 (0.033) [0.868] [(0.064)]	-1234.026 (1848.979) [21643.380] [(3636.696)]
1	130.639 (6.578) [-1.937] [(3.045)]	-0.088 (0.018) [0.420] [(0.027)]	-685.460 (237.596) [2400.386] [(386.547)]	103.095 (14.112) [-13.085] [(6.497)]	-0.093 (0.040) [0.780] [(0.074)]	-3676.381 (1900.130) [18905.550] [(3711.519)]
2	57.403 (3.794) [19.680] [(4.166)]	-0.044 (0.018) [0.420] [(0.027)]	-65.182 (272.052) [2449.083] [(433.322)]	64.104 (8.648) [-13.002] [(8.446)]	-0.107 (0.040) [0.771] [(0.077)]	-4835.019 (1970.916) [23808.860] [(3820.816)]
3	35.123 (3.664) [33.186] [(4.564)]	-0.018 (0.018) [0.386] [(0.027)]	131.241 (304.179) [2645.143] [(480.256)]	43.644 (6.953) [2.475] [(8.943)]	-0.047 (0.041) [0.701] [(0.081)]	-2505.462 (1947.666) [18688.650] [(3873.489)]
4	25.858 (3.611) [32.006] [(4.621)]	0.011 (0.018) [0.350] [(0.027)]	218.866 (326.197) [2774.974] [(510.320)]	30.781 (6.211) [6.644] [(8.812)]	-0.042 (0.042) [0.689] [(0.083)]	-1643.715 (1964.246) [18158.090] [(3915.807)]
5	17.040 (3.703) [35.257] [(4.679)]	0.015 (0.018) [0.326] [(0.027)]	387.584 (348.724) [2846.052] [(544.966)]	24.681 (5.945) [-1.691] [(8.873)]	-0.086 (0.043) [0.775] [(0.084)]	-1302.046 (2011.145) [17559.030] [(3991.589)]
6	12.234 (3.801) [29.395] [(4.609)]	0.037 (0.019) [0.303] [(0.027)]	618.197 (381.633) [2708.446] [(582.146)]	20.578 (5.825) [10.098] [(9.157)]	-0.030 (0.044) [0.686] [(0.087)]	985.419 (2098.816) [15182.510] [(4100.562)]
7	12.078 (3.897) [30.758] [(4.637)]	0.024 (0.019) [0.312] [(0.027)]	708.531 (413.406) [2691.697] [(603.035)]	19.861 (5.553) [9.257] [(8.781)]	0.060 (0.047) [0.528] [(0.089)]	110.553 (2058.013) [16715.290] [(4097.382)]
8	6.277 (3.967) [34.803] [(4.657)]	0.022 (0.021) [0.307] [(0.028)]	687.042 (456.117) [3141.668] [(645.449)]	9.346 (5.832) [27.615] [(8.866)]	0.016 (0.045) [0.624] [(0.089)]	-1044.983 (2042.605) [20347.590] [(4116.453)]
9	6.676 (4.163) [27.352] [(4.621)]	0.041 (0.022) [0.306] [(0.029)]	711.603 (501.774) [3460.455] [(708.653)]	2.389 (6.275) [28.558] [(8.850)]	0.012 (0.047) [0.644] [(0.091)]	175.131 (2203.806) [17124.810] [(4246.390)]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. All coefficients are scaled to represent the effect of 12 months of incarceration. The table reports an effect estimate and its standard error and the untreated complier mean and its standard error for the outcome listed in the column header in the period relative to initial filing date indicated in rows. Standard errors clustered by defendant are shown in parentheses.

Table D.13: Ohio: heterogeneity by prior earnings (with controls)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Lower attachment				Higher attachment			
	Days incar	Any W2	W2 earnings	Has 1040	Days incar	Any W2	W2 earnings	Has 1040
-4	-3.180 (2.868) [34.013] [(4.245)]	0.003 (0.014) [0.433] [(0.027)]	57.841 (160.733) [2252.058] [(294.179)]	-0.0032856 0.0130999 0.2561933 0.0247162	-2.925 (3.410) [16.967] [(6.085)]	0.027 (0.015) [0.923] [(0.031)]	-131.858 (1191.298) [34508.660] [(3199.457)]	0.014 (0.025) [0.786] [(0.063)]
-3	-1.978 (2.712) [34.526] [(3.713)]	-0.024 (0.013) [0.508] [(0.023)]	-111.388 (117.523) [2378.033] [(210.428)]	0.0149637 0.0111782 0.2364852 0.0207657	-0.961 (2.750) [12.981] [(4.418)]	-0.008 (0.010) [1.015] [(0.021)]	469.113 (874.989) [32477.610] [(2289.118)]	0.046 (0.021) [0.769] [(0.049)]
-2	1.095 (2.463) [31.792] [(3.209)]	-0.003 (0.011) [0.499] [(0.020)]	-19.257 (106.465) [2241.910] [(191.403)]	-0.0086361 0.0100873 0.2862571 0.0183546	-0.597 (2.477) [10.024] [(4.016)]	0.005 (0.012) [0.941] [(0.025)]	-232.089 (817.999) [31683.520] [(2091.146)]	-0.033 (0.020) [0.826] [(0.045)]
-1	-0.771 (2.203) [30.702] [(2.795)]	0.018 (0.012) [0.461] [(0.021)]	30.205 (131.314) [2530.486] [(238.596)]	-0.0037394 0.0114022 0.2867407 0.0196776	-1.409 (2.532) [7.684] [(4.188)]	-0.017 (0.014) [0.958] [(0.034)]	-47.025 (939.327) [29721.000] [(2404.679)]	-0.021 (0.023) [0.809] [(0.054)]
0	58.441 (3.599) [7.821] [(1.375)]	0.008 (0.016) [0.364] [(0.024)]	-187.551 (180.522) [1947.381] [(296.771)]	-0.0405845 0.0145523 0.2568479 0.023158	42.778 (7.187) [0.220] [(2.821)]	0.000 (0.031) [0.891] [(0.061)]	-2681.935 (1428.272) [24184.080] [(3005.296)]	-0.084 (0.038) [0.791] [(0.074)]
1	130.911 (6.597) [-1.963] [(3.036)]	-0.104 (0.016) [0.443] [(0.025)]	-790.555 (217.045) [2558.882] [(357.108)]	-0.0671845 0.015409 0.2950186 0.0241099	102.993 (14.049) [-13.707] [(6.546)]	-0.106 (0.039) [0.800] [(0.073)]	-4998.363 (1667.752) [21290.290] [(3276.341)]	-0.098 (0.040) [0.690] [(0.079)]
2	57.655 (3.754) [19.329] [(4.121)]	-0.059 (0.016) [0.441] [(0.025)]	-194.302 (250.598) [2650.881] [(404.870)]	-0.0290052 0.0156624 0.2782975 0.0243483	63.968 (8.607) [-13.336] [(8.498)]	-0.121 (0.040) [0.793] [(0.077)]	-6080.127 (1799.056) [26162.070] [(3476.413)]	-0.099 (0.041) [0.673] [(0.081)]
3	35.433 (3.597) [32.612] [(4.491)]	-0.032 (0.017) [0.405] [(0.025)]	-0.483 (282.521) [2854.570] [(452.321)]	-0.0133022 0.0159462 0.2827418 0.0246115	43.415 (6.923) [2.029] [(8.992)]	-0.056 (0.040) [0.716] [(0.080)]	-3802.365 (1740.357) [21077.930] [(3538.714)]	-0.068 (0.041) [0.681] [(0.083)]
4	26.164 (3.537) [31.413] [(4.543)]	-0.003 (0.017) [0.369] [(0.026)]	72.016 (304.925) [2999.235] [(483.189)]	-0.0129086 0.0161958 0.2997774 0.0248678	31.016 (6.188) [6.025] [(8.814)]	-0.052 (0.041) [0.704] [(0.081)]	-2828.341 (1751.929) [20321.760] [(3602.748)]	-0.038 (0.041) [0.650] [(0.084)]
5	17.752 (3.607) [34.343] [(4.576)]	0.002 (0.017) [0.344] [(0.026)]	222.425 (327.458) [3102.134] [(518.705)]	0.0218767 0.0165572 0.2720718 0.0251338	24.981 (5.809) [-1.901] [(8.840)]	-0.096 (0.042) [0.793] [(0.083)]	-2464.337 (1806.920) [19716.260] [(3694.686)]	-0.024 (0.042) [0.625] [(0.084)]
6	12.540 (3.716) [29.076] [(4.521)]	0.023 (0.018) [0.323] [(0.026)]	408.562 (358.028) [3012.794] [(553.821)]	0.0178317 0.0170504 0.303804 0.0253058	20.627 (5.727) [9.874] [(9.122)]	-0.040 (0.042) [0.702] [(0.085)]	-136.157 (1844.713) [17273.480] [(3793.825)]	-0.040 (0.043) [0.628] [(0.086)]
7	12.018 (3.815) [30.804] [(4.539)]	0.008 (0.018) [0.333] [(0.026)]	450.702 (389.722) [3056.406] [(575.156)]	0.0021671 0.0178914 0.3072967 0.0255839	19.500 (5.520) [9.444] [(8.845)]	0.046 (0.045) [0.551] [(0.088)]	-1088.793 (1846.415) [18991.740] [(3837.975)]	-0.008 (0.043) [0.600] [(0.088)]
8	6.477 (3.863) [34.554] [(4.526)]	0.005 (0.019) [0.330] [(0.027)]	387.139 (430.378) [3563.541] [(615.518)]	0.002626 0.0189147 0.3004923 0.026298	9.205 (5.797) [28.050] [(8.962)]	0.007 (0.043) [0.638] [(0.087)]	-2021.904 (1861.954) [22121.860] [(3902.972)]	0.042 (0.044) [0.547] [(0.089)]
9	6.608 (4.073) [27.412] [(4.518)]	0.024 (0.020) [0.328] [(0.027)]	393.644 (471.904) [3887.427] [(671.889)]	-0.0049871 0.0193333 0.3232015 0.0267133	2.403 (6.291) [28.877] [(8.973)]	0.004 (0.046) [0.656] [(0.090)]	-1047.480 (2016.383) [19168.510] [(4069.745)]	0.052 (0.047) [0.489] [(0.091)]

Notes: This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. All coefficients are scaled to represent the effect of 12 months of incarceration. The table reports an effect estimate and its standard error and the untreated complier mean and its standard error for the outcome listed in the column header in the period relative to initial filing date indicated in rows. Standard errors clustered by defendant are shown in parentheses.



Table D.14: North Carolina: Heterogeneous long-run effects with controls

Effect 5-9 years post filing	(1) Incarceration		(3)	(4) Labor market activity		(6)
	Days / year	Cumu. Days	Any W2	W2 earnings	Cumu. any	Cumu. earn
Employed at $t = -1$						
Employed (N=157143)	8.12 (4.23) [60.33]	226.78 (13.48) [376.64]	0.019 (0.015) [0.441]	281.38 (388.52) [7209.06]	-0.289 (0.065) [3.123]	-5125.74 (1456.15) [37557.40]
Not employed (N=149111)	0.17 (4.91) [72.61]	203.62 (14.09) [414.72]	0.026 (0.014) [0.303]	-1.33 (246.54) [3162.42]	-0.001 (0.056) [1.346]	-707.96 (690.65) [9603.00]
Earn above \$15k at $t = -1$						
Earn above (N=34473)	19.27 (6.01) [39.73]	229.56 (21.85) [248.90]	-0.016 (0.024) [0.617]	-1238.60 (872.91) [15276.00]	-0.356 (0.098) [4.587]	-12599.21 (4072.60) [97161.69]
Earn below (N=271781)	1.21 (3.68) [70.32]	209.90 (10.72) [412.41]	0.029 (0.011) [0.327]	272.66 (219.02) [3836.78]	-0.097 (0.047) [1.788]	-1503.63 (652.81) [14124.72]
Work mostly 2-4 years pre						
Mostly works (N=160444)	9.14 (4.01) [59.68]	229.92 (13.11) [362.66]	0.010 (0.014) [0.441]	-318.66 (356.27) [7203.16]	-0.264 (0.061) [2.850]	-5533.25 (1384.58) [35758.48]
Mostly doesn't (N=145810)	-1.89 (5.20) [73.86]	194.91 (14.56) [429.83]	0.035 (0.015) [0.290]	505.55 (268.53) [2924.55]	0.001 (0.059) [1.419]	38.90 (750.26) [9179.55]
Avg. earnings above \$15k 2-4 years pre						
Earn above (N=35350)	22.21 (5.82) [31.27]	245.23 (22.62) [234.06]	-0.027 (0.024) [0.646]	-1464.67 (861.97) [17082.69]	-0.287 (0.105) [4.089]	-12967.03 (4069.95) [100849.10]
Earn below (N=270904)	0.59 (3.71) [71.28]	207.44 (10.72) [413.06]	0.033 (0.011) [0.324]	351.99 (220.26) [3708.23]	-0.096 (0.047) [1.843]	-1200.74 (664.18) [13599.48]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes pooling the five to nine years post filing in North Carolina. All coefficients are scaled to represent the effect of 12 months of incarceration. Each estimate splits the sample into the two groups indicated in the rows. Standard errors clustered by defendant are shown in parentheses. Estimated untreated mean outcomes for compliers shifted from zero to some incarceration are shown in square brackets and calculated as detailed in Section A.1. Specifications include all available control variables.

Table D.15: Ohio: Heterogeneous long-run effects with controls

	(1)	(2)	(3)	(4)	(5)	(6)
	Incarceration		Labor market activity			
Effect 5-9 years post filing	Days / year	Cumu. Days	Any W2	W2 earnings	Cumu. any	Cumu. earn
Employed at $t = -1$						
Employed (N=155684)	12.32 (3.29) [20.23]	326.69 (21.81) [72.87]	-0.008 (0.020) [0.501]	-530.71 (726.45) [9184.65]	-0.405 (0.097) [3.790]	-11780.89 (3272.45) [60007.04]
Not employed (N=87554)	14.77 (5.54) [27.22]	339.90 (30.22) [105.43]	0.019 (0.025) [0.252]	869.25 (583.71) [1580.47]	-0.149 (0.114) [1.614]	1040.95 (2029.85) [7731.92]
Earn above \$15k at $t = -1$						
Earn above (N=46432)	11.01 (5.99) [5.22]	387.22 (59.76) -[30.15]	-0.040 (0.046) [0.706]	-3136.66 (2405.78) [22649.13]	-0.916 (0.240) [5.371]	-49460.30 (14328.72) [172002.30]
Earn below (N=196806)	13.31 (3.31) [26.73]	323.95 (18.69) [105.93]	0.009 (0.017) [0.349]	449.21 (431.43) [3370.54]	-0.189 (0.080) [2.466]	-419.61 (1592.11) [16597.89]
Work mostly 2-4 years pre						
Mostly works (N=153653)	10.69 (3.50) [20.37]	337.15 (23.58) [57.75]	0.020 (0.023) [0.466]	-383.21 (800.45) [9047.75]	-0.347 (0.106) [3.644]	-11887.84 (3604.65) [58595.74]
Mostly doesn't (N=89586)	16.80 (4.73) [27.77]	319.95 (25.56) [127.42]	-0.024 (0.021) [0.317]	293.23 (493.44) [2380.51]	-0.255 (0.099) [1.905]	-1500.69 (1752.24) [13484.29]
Avg. earnings above \$15k 2-4 years pre						
Earn above (N=45240)	15.50 (5.04) [10.24]	331.08 (41.18) -[15.71]	-0.029 (0.040) [0.683]	-2027.00 (1987.90) [20493.46]	-0.676 (0.195) [5.000]	-33392.35 (10456.37) [150729.90]
Earn below (N=197999)	12.72 (3.33) [25.71]	330.91 (19.38) [103.18]	0.008 (0.017) [0.354]	285.38 (439.70) [3865.03]	-0.218 (0.080) [2.538]	-2117.36 (1636.03) [20533.83]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes pooling the five to nine years post filing in Ohio. All coefficients are scaled to represent the effect of 12 months of incarceration. Each estimate splits the sample into the two groups indicated in the rows. Standard errors clustered by defendant are shown in parentheses. Estimated untreated mean outcomes for compliers shifted from zero to some incarceration are shown in square brackets and calculated as detailed in Section A.1. Specifications include all available control variables.

### D.3 Sensitivity to inclusion of controls

Finally, we test sensitivity of the 2SLS estimates to the inclusion of control variables. The main text does not include controls since the variation that we use does not require conditioning on controls, and the placebo tests in [Table B.7](#) are based on this unconditional design. However, for some of our estimates, there are small chance imbalances in some of the pre-period estimates - for example, the estimated coefficient on having any W-2 earnings in time period -1 is marginally statistically significant in Ohio. Such occasional imbalances are likely to occur due to chance given the large number of statistical tests that we conduct. In this case, the other pre-period coefficients are not statistically distinguishable from zero, indicating that there is not a violation of the judge assignment randomization creating a relationship between prior earnings and judge severity. Furthermore, we do not observe any relationship with W-2 earnings in the periods prior to case filing in Ohio, a more refined measure of tax filing behavior. However, it is helpful to test whether our results are robust to the inclusion of controls that remove chance imbalances on observable variables.<sup>28</sup>

We have four main sets of controls that we can include. The first is earnings and tax-filing behavior over the four periods prior to case filing, including mean wages and means of indicators for having any wage and any 1040. The second is modal two-digit NAICS of employment pre-filing, for which we include fixed effects. The third is previous involvement with the criminal justice system: we add third-order polynomials in the number of previous charges and previous incarceration spells, as well as an indicator for first time conviction. Finally, we include demographic controls for sex and race, as well as a third-order polynomial in age.

We first examine how the addition of controls shifts the dynamic effects on W-2 filing and earnings. [Table D.16](#) provides estimates without controls in North Carolina and [Table D.18](#) Ohio, while [Table D.17](#) and [Table D.19](#) have the corresponding results with controls. For North Carolina, the addition of controls results in only small changes, where the point estimates typically become slightly more negative (e.g. the estimated effect on W2 earnings drops from -\$582 to -\$756 in the first period after case filing in North Carolina). In the long-run, the estimates are again slightly more negative (e.g. \$493 and \$370 in period 9), but the interpretation of no persistent scarring effects is basically the same. In Ohio, the addition of controls produces a more significant downwards shift of the estimates (-\$1022 to -\$1364 in W-2 earnings in the first period after filing), but the interpretation does not qualitatively change – there is a sharp decrease during the period of incarceration, but no

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<sup>28</sup>Including controls can also make the estimates more precise by reducing residual variation. Given that many of our long-run estimates are not statistically distinguishable from zero, increasing our statistical power with the addition of controls provides precision to determine whether these are true zeros.

long term scarring. However, the addition of controls makes the long-run estimates more precisely centered around zero and removes the apparent transitory imbalances in tax filing outcomes in period -1, increasing our confidence in our estimates.<sup>29</sup>

The addition of controls has similar effects for alternative tax filing outcome such as whether the individual files a 1040, has non-employment compensation or any self-employment income (Table D.20 in North Carolina and Table D.21 in Ohio, as well as Table D.41 for pooled long-run estimates), as well as for EIC filing behavior (Table D.36) and when examining intra-familial spillovers (Table D.34 and Table D.35; see Table D.38 for long-run pooled estimates). This is intuitive given these are either similar to W-2 filing, so we would expect similar effects, or are far from statistical significance in the full sample such that the additional precision from controls is unlikely to affect our conclusions. We thus conclude that our results are not sensitive to the inclusion of controls, increasing our confidence in the robustness of the findings.

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<sup>29</sup>The same is true for examining heterogeneity with respect to previous incarceration history (Table D.24 in North Carolina and Table D.26 in Ohio, as compared to Table D.25 and Table D.27), restricting to a sample comparable to similar studies such as Pager (2003) (Table D.28 as compared to Table D.29; Table D.43 and Table D.44 do the same for pooled long-term estimates). Our analysis of whether incapacitation can explain our results also does not change as the result of adding controls (Table D.22 and Table D.23).

Table D.16: North Carolina: Full dynamic effects

	(1)	(2)	(3)	(4)	(5)	(6)
	Days incar	Any W2	W2 Earnings	Cumu. Incar	Cumu. any W2	Cumu. W2 earnings
-4	4.614 (3.603) [52.851] [(4.112)]	-0.004 (0.016) [0.451] [(0.021)]	-82.911 (249.118) [3381.060] [(372.232)]			
-3	3.830 (3.495) [57.712] [(4.016)]	-0.005 (0.015) [0.406] [(0.020)]	151.469 (240.745) [3217.931] [(365.597)]			
-2	7.387 (3.271) [59.365] [(3.853)]	0.001 (0.014) [0.364] [(0.019)]	103.280 (232.397) [2960.712] [(353.052)]			
-1	7.159 (2.966) [54.955] [(3.382)]	0.001 (0.014) [0.358] [(0.019)]	34.185 (220.909) [2858.063] [(347.036)]			
0	10.710 (2.375) [25.024] [(2.098)]	-0.003 (0.013) [0.334] [(0.019)]	-165.941 (184.689) [2427.269] [(307.017)]	10.710 (2.375) [25.024] [(2.098)]	-0.003 (0.013) [0.334] [(0.019)]	-165.941 (184.689) [2427.269] [(307.017)]
1	76.848 (4.569) [56.542] [(3.453)]	-0.083 (0.011) [0.297] [(0.019)]	-582.478 (163.581) [2206.618] [(297.394)]	87.558 (5.764) [81.566] [(4.432)]	-0.087 (0.020) [0.631] [(0.033)]	-748.419 (321.405) [4633.887] [(562.181)]
2	75.563 (4.022) [79.404] [(4.358)]	-0.051 (0.012) [0.299] [(0.019)]	-726.262 (176.373) [2710.004] [(319.638)]	163.121 (8.037) [160.970] [(7.217)]	-0.138 (0.027) [0.930] [(0.045)]	-1474.681 (459.084) [7343.891] [(822.842)]
3	39.275 (3.664) [85.439] [(4.440)]	0.006 (0.013) [0.310] [(0.019)]	-343.111 (206.830) [3145.979] [(340.209)]	202.395 (8.721) [246.408] [(9.840)]	-0.131 (0.034) [1.240] [(0.057)]	-1817.792 (612.109) [10489.870] [(1093.181)]
4	19.372 (3.814) [79.510] [(4.463)]	0.028 (0.014) [0.308] [(0.019)]	-24.612 (229.534) [3252.597] [(356.538)]	221.767 (9.307) [325.918] [(12.336)]	-0.103 (0.041) [1.548] [(0.069)]	-1842.403 (775.659) [13742.470] [(1371.643)]
5	2.904 (4.093) [77.068] [(4.713)]	0.030 (0.014) [0.343] [(0.019)]	175.452 (248.049) [3886.149] [(377.015)]	222.084 (10.152) [396.602] [(14.817)]	-0.073 (0.049) [1.891] [(0.080)]	-1666.952 (955.461) [17628.620] [(1660.150)]
6	9.426 (4.063) [63.679] [(4.852)]	0.024 (0.014) [0.333] [(0.020)]	169.941 (264.740) [4399.510] [(401.979)]	227.544 (12.006) [457.014] [(18.235)]	-0.067 (0.058) [2.196] [(0.095)]	-1915.573 (1163.902) [22156.090] [(2025.187)]
7	11.213 (4.236) [58.963] [(5.224)]	0.013 (0.014) [0.300] [(0.020)]	115.191 (283.821) [3997.396] [(430.859)]	237.386 (14.337) [515.863] [(22.122)]	-0.078 (0.068) [2.502] [(0.111)]	-2159.401 (1393.571) [25567.930] [(2414.705)]
8	7.366 (4.335) [55.113] [(5.374)]	0.030 (0.015) [0.301] [(0.022)]	203.894 (310.660) [4015.603] [(467.443)]	240.956 (17.215) [570.877] [(26.580)]	-0.073 (0.080) [2.788] [(0.130)]	-2288.904 (1687.756) [29383.510] [(2859.312)]
9	5.779 (4.506) [55.061] [(5.590)]	0.029 (0.016) [0.320] [(0.023)]	492.733 (336.860) [4474.520] [(515.515)]	241.960 (19.977) [616.178] [(31.143)]	-0.052 (0.091) [3.133] [(0.151)]	-803.891 (1992.266) [33818.370] [(3401.161)]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. All coefficients are scaled to represent the effect of 12 months of incarceration. The table reports an effect estimate and its standard error and the untreated complier mean and its standard error for the outcome listed in the column header in the period relative to initial filing date indicated in rows. Standard errors clustered by defendant are shown in parentheses.

Table D.17: North Carolina: Full dynamic estimates (with controls)

	(1)	(2)	(3)	(4)	(5)	(6)
	Estimates			Cumulative estimates		
	Days incar	Any W2	W2 earnings	Cumu. days incar	Cumu. W2	Cumu. W2 earnings
-4	2.800 (3.515) [53.834] [(4.106)]	0.007 (0.011) [0.452] [(0.019)]	-34.532 (140.993) [3847.937] [(328.768)]			
-3	1.743 (3.392) [59.087] [(4.000)]	0.000 (0.009) [0.411] [(0.019)]	152.524 (109.394) [3687.986] [(317.883)]			
-2	5.288 (3.160) [60.619] [(3.822)]	-0.001 (0.009) [0.380] [(0.018)]	18.183 (100.992) [3544.772] [(304.575)]			
-1	4.962 (2.851) [56.213] [(3.350)]	-0.007 (0.010) [0.384] [(0.018)]	-132.635 (120.020) [3559.017] [(305.908)]			
0	9.501 (2.350) [25.615] [(2.106)]	-0.014 (0.012) [0.364] [(0.019)]	-341.593 (138.915) [3048.643] [(288.056)]	9.501 (2.350) [25.615] [(2.106)]	-0.014 (0.012) [0.364] [(0.019)]	-341.593 (138.915) [3048.643] [(288.056)]
1	76.004 (4.592) [56.341] [(3.485)]	-0.093 (0.011) [0.325] [(0.019)]	-755.921 (143.752) [2760.393] [(284.471)]	85.505 (5.737) [81.956] [(4.426)]	-0.107 (0.018) [0.689] [(0.032)]	-1097.514 (250.055) [5809.036] [(525.864)]
2	74.121 (4.025) [79.123] [(4.385)]	-0.059 (0.012) [0.322] [(0.019)]	-887.004 (160.268) [3246.217] [(309.233)]	159.626 (7.964) [161.078] [(7.173)]	-0.166 (0.024) [1.011] [(0.044)]	-1984.517 (365.325) [9055.253] [(770.849)]
3	37.240 (3.674) [86.042] [(4.464)]	0.000 (0.013) [0.330] [(0.019)]	-491.016 (188.545) [3651.495] [(330.171)]	196.866 (8.552) [247.120] [(9.756)]	-0.167 (0.030) [1.341] [(0.055)]	-2475.533 (491.563) [12706.750] [(1024.964)]
4	17.073 (3.835) [80.679] [(4.494)]	0.021 (0.013) [0.325] [(0.019)]	-195.008 (212.377) [3757.490] [(347.915)]	213.940 (9.034) [327.799] [(12.219)]	-0.146 (0.037) [1.666] [(0.067)]	-2670.542 (628.581) [16464.240] [(1288.443)]
5	0.445 (4.126) [78.483] [(4.741)]	0.022 (0.013) [0.359] [(0.019)]	-4.636 (230.768) [4375.410] [(370.787)]	212.572 (9.816) [399.546] [(14.667)]	-0.123 (0.044) [2.024] [(0.078)]	-2675.178 (782.399) [20839.650] [(1564.924)]
6	7.015 (4.079) [65.147] [(4.896)]	0.018 (0.014) [0.346] [(0.020)]	1.819 (248.252) [4828.973] [(397.334)]	215.538 (11.592) [462.040] [(18.042)]	-0.114 (0.051) [2.332] [(0.092)]	-3000.420 (965.184) [25617.120] [(1917.846)]
7	8.793 (4.235) [60.779] [(5.284)]	0.007 (0.014) [0.310] [(0.021)]	-18.213 (265.477) [4341.913] [(428.168)]	222.710 (13.840) [523.447] [(21.942)]	-0.125 (0.060) [2.633] [(0.108)]	-3008.968 (1159.545) [28787.070] [(2298.512)]
8	4.879 (4.329) [57.631] [(5.431)]	0.024 (0.015) [0.311] [(0.022)]	88.513 (291.719) [4306.380] [(468.602)]	223.116 (16.621) [584.683] [(26.432)]	-0.118 (0.070) [2.910] [(0.127)]	-2818.463 (1417.556) [32027.250] [(2764.670)]
9	3.174 (4.499) [57.813] [(5.656)]	0.021 (0.015) [0.331] [(0.023)]	370.468 (315.102) [4737.028] [(512.531)]	220.882 (19.289) [637.520] [(30.969)]	-0.097 (0.080) [3.235] [(0.147)]	-1296.907 (1664.183) [36038.210] [(3282.139)]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. All coefficients are scaled to represent the effect of 12 months of incarceration. The table reports an effect estimate and its standard error and the untreated complier mean and its standard error for the outcome listed in the column header in the period relative to initial filing date indicated in rows. Standard errors clustered by defendant are shown in parentheses.

Table D.18: Ohio: Full dynamic estimates (no controls)

	(1)	(2)	(3)	(4)	(5)	(6)
	Estimates			Cumulative estimates		
	Days incar	Any W2	W2 earnings	Cumu. days incar	Cumu. W2	Cumu. W2 earnings
-4	-1.438 (2.821) [30.452] [(4.099)]	0.025 (0.019) [0.459] [(0.033)]	502.791 (494.217) [4984.318] [(880.792)]			
-3	-1.384 (2.665) [31.804] [(3.584)]	0.009 (0.018) [0.524] [(0.029)]	773.729 (468.312) [4633.456] [(780.209)]			
-2	0.678 (2.454) [29.714] [(3.110)]	0.032 (0.017) [0.505] [(0.026)]	458.964 (435.943) [4942.216] [(699.541)]			
-1	-0.741 (2.165) [28.184] [(2.697)]	0.049 (0.017) [0.471] [(0.026)]	506.332 (427.229) [5000.176] [(682.537)]			
0	56.478 (3.307) [6.894] [(1.286)]	0.028 (0.017) [0.396] [(0.026)]	-142.154 (381.814) [3959.347] [(619.520)]	56.478 (3.307) [6.894] [(1.286)]	0.028 (0.017) [0.396] [(0.026)]	-142.154 (381.814) [3959.347] [(619.520)]
1	126.889 (6.046) -[3.056] [(2.799)]	-0.086 (0.017) [0.458] [(0.026)]	-1022.711 (379.885) [4197.374] [(630.112)]	183.367 (8.881) [3.839] [(3.385)]	-0.058 (0.029) [0.854] [(0.046)]	-1164.865 (720.175) [8156.721] [(1186.645)]
2	58.246 (3.481) [16.221] [(3.818)]	-0.050 (0.017) [0.457] [(0.026)]	-633.287 (399.075) [4764.318] [(658.780)]	241.613 (10.907) [20.059] [(6.249)]	-0.108 (0.041) [1.312] [(0.064)]	-1798.152 (1065.650) [12921.040] [(1760.458)]
3	36.166 (3.305) [29.775] [(4.185)]	-0.020 (0.017) [0.420] [(0.026)]	-137.609 (420.677) [4369.527] [(689.442)]	277.779 (12.237) [49.834] [(9.224)]	-0.128 (0.052) [1.731] [(0.082)]	-1935.761 (1423.035) [17290.570] [(2350.888)]
4	26.403 (3.240) [29.245] [(4.229)]	0.006 (0.017) [0.385] [(0.026)]	45.232 (434.999) [4443.774] [(707.202)]	304.182 (13.431) [79.079] [(12.141)]	-0.122 (0.063) [2.117] [(0.100)]	-1890.529 (1787.775) [21734.340] [(2947.593)]
5	18.010 (3.298) [30.942] [(4.276)]	0.002 (0.017) [0.376] [(0.026)]	208.378 (449.678) [4469.565] [(728.822)]	321.106 (14.498) [108.768] [(14.802)]	-0.120 (0.074) [2.493] [(0.118)]	-1682.151 (2157.892) [26203.910] [(3549.838)]
6	13.354 (3.365) [27.031] [(4.222)]	0.030 (0.018) [0.346] [(0.027)]	756.862 (481.270) [4077.461] [(759.156)]	336.280 (16.164) [136.153] [(17.689)]	-0.079 (0.088) [2.819] [(0.137)]	-953.948 (2619.119) [30917.930] [(4198.741)]
7	13.007 (3.412) [28.327] [(4.233)]	0.032 (0.018) [0.335] [(0.027)]	633.914 (507.331) [4335.159] [(774.309)]	354.850 (18.197) [166.567] [(20.413)]	-0.063 (0.104) [3.131] [(0.156)]	-1110.862 (3128.374) [35870.310] [(4853.820)]
8	6.381 (3.494) [34.058] [(4.245)]	0.023 (0.019) [0.343] [(0.028)]	516.709 (544.798) [5085.669] [(813.527)]	360.742 (20.285) [202.981] [(23.460)]	-0.028 (0.121) [3.475] [(0.179)]	-925.498 (3695.738) [41699.300] [(5621.074)]
9	5.529 (3.665) [27.809] [(4.209)]	0.038 (0.020) [0.347] [(0.028)]	735.349 (590.560) [5016.261] [(870.613)]	357.778 (22.567) [242.265] [(26.681)]	0.027 (0.139) [3.777] [(0.203)]	199.158 (4323.814) [45125.540] [(6484.162)]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. All coefficients are scaled to represent the effect of 12 months of incarceration. The table reports an effect estimate and its standard error and the untreated complier mean and its standard error for the outcome listed in the column header in the period relative to initial filing date indicated in rows. Standard errors clustered by defendant are shown in parentheses.

Table D.19: Ohio: Full dynamic estimates (with controls)

	(1)	(2)	(3)	(4)	(5)	(6)
	Estimates			Cumulative estimates		
	Days incar	Any W2	W2 earnings	Cumu. days incar	Cumu. W2	Cumu. W2 earnings
-4	-3.260 (2.532) [32.306] [(3.864)]	0.005 (0.013) [0.488] [(0.025)]	-14.185 (222.261) [5797.349] [(536.897)]			
-3	-2.058 (2.374) [32.197] [(3.344)]	-0.023 (0.011) [0.569] [(0.021)]	-16.739 (166.044) [5799.000] [(435.073)]			
-2	0.550 (2.160) [29.526] [(2.887)]	-0.002 (0.010) [0.551] [(0.019)]	-40.343 (149.116) [5631.868] [(386.175)]			
-1	-1.035 (1.938) [28.230] [(2.526)]	0.015 (0.011) [0.517] [(0.020)]	31.009 (187.693) [5658.205] [(414.932)]			
0	56.432 (3.289) [7.008] [(1.260)]	0.006 (0.014) [0.427] [(0.023)]	-507.817 (255.242) [4485.636] [(464.847)]	56.432 (3.289) [7.008] [(1.260)]	0.006 (0.014) [0.427] [(0.023)]	-507.817 (255.242) [4485.636] [(464.847)]
1	127.425 (6.076) [-3.196] [(2.790)]	-0.105 (0.015) [0.485] [(0.024)]	-1364.817 (297.457) [4722.154] [(513.936)]	183.857 (8.893) [3.811] [(3.352)]	-0.099 (0.024) [0.913] [(0.040)]	-1872.635 (497.371) [9207.789] [(899.397)]
2	58.623 (3.449) [15.740] [(3.773)]	-0.067 (0.015) [0.483] [(0.024)]	-993.100 (322.511) [5328.255] [(554.015)]	242.480 (10.902) [19.551] [(6.159)]	-0.166 (0.033) [1.396] [(0.055)]	-2865.735 (750.665) [1436.040] [(1349.520)]
3	36.586 (3.246) [29.020] [(4.110)]	-0.037 (0.015) [0.444] [(0.025)]	-506.645 (345.926) [4946.799] [(590.306)]	279.066 (12.175) [48.571] [(9.036)]	-0.203 (0.042) [1.840] [(0.071)]	-3372.379 (1016.289) [19482.840] [(1821.436)]
4	26.808 (3.174) [28.495] [(4.149)]	-0.010 (0.016) [0.408] [(0.025)]	-329.503 (363.178) [5020.660] [(613.433)]	305.874 (13.281) [77.066] [(11.843)]	-0.212 (0.051) [2.248] [(0.086)]	-3701.882 (1291.924) [24503.500] [(2304.684)]
5	18.759 (3.213) [29.938] [(4.177)]	-0.013 (0.016) [0.398] [(0.025)]	-179.044 (381.709) [5066.130] [(641.038)]	323.253 (14.249) [106.031] [(14.389)]	-0.225 (0.061) [2.646] [(0.101)]	-3880.926 (1576.327) [29569.630] [(2798.769)]
6	13.732 (3.291) [26.559] [(4.136)]	0.013 (0.016) [0.369] [(0.025)]	337.275 (410.127) [4699.548] [(671.437)]	339.956 (15.733) [131.598] [(17.089)]	-0.208 (0.072) [3.001] [(0.117)]	-3702.622 (1919.151) [35001.050] [(3326.193)]
7	13.139 (3.342) [28.122] [(4.140)]	0.015 (0.017) [0.358] [(0.025)]	194.749 (437.580) [4973.561] [(690.292)]	357.437 (17.610) [163.587] [(19.683)]	-0.224 (0.084) [3.349] [(0.134)]	-4421.441 (2312.667) [40658.180] [(3866.644)]
8	6.743 (3.403) [33.589] [(4.122)]	0.004 (0.018) [0.369] [(0.026)]	0.303 (473.912) [5811.177] [(730.531)]	362.710 (19.454) [200.839] [(22.502)]	-0.235 (0.098) [3.752] [(0.153)]	-5321.054 (2747.961) [47893.900] [(4494.285)]
9	5.776 (3.581) [27.492] [(4.106)]	0.019 (0.019) [0.372] [(0.027)]	169.117 (516.661) [5785.129] [(784.238)]	362.830 (21.495) [237.419] [(25.405)]	-0.198 (0.112) [4.071] [(0.173)]	-5122.044 (3231.371) [52462.800] [(5194.618)]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. All coefficients are scaled to represent the effect of 12 months of incarceration. The table reports an effect estimate and its standard error and the untreated complier mean and its standard error for the outcome listed in the column header in the period relative to initial filing date indicated in rows. Standard errors clustered by defendant are shown in parentheses.



Table D.20: North Carolina: Additional employment estimates

	(1)	(2)	(3)	(4)	(5)	(6)
	Without controls			With controls		
	Has 1040	Any NEC	Any self-employ.	Has 1040	Any NEC	Any self-employ.
-4	-0.006 (0.014) [0.282] [(0.019)]	-0.001 (0.007) [0.054] [(0.010)]	-0.002 (0.005) [0.030] [(0.007)]	-0.007 (0.010) [0.302] [(0.018)]	0.002 (0.007) [0.052] [(0.011)]	-0.002 (0.005) [0.030] [(0.007)]
-3	0.009 (0.013) [0.266] [(0.019)]	0.000 (0.007) [0.045] [(0.010)]	0.005 (0.005) [0.031] [(0.007)]	0.009 (0.008) [0.285] [(0.017)]	0.003 (0.007) [0.042] [(0.010)]	0.006 (0.005) [0.031] [(0.007)]
-2	0.004 (0.013) [0.250] [(0.018)]	-0.004 (0.006) [0.065] [(0.010)]	0.001 (0.005) [0.038] [(0.007)]	0.001 (0.008) [0.274] [(0.017)]	-0.002 (0.006) [0.063] [(0.010)]	0.002 (0.005) [0.038] [(0.007)]
-1	0.005 (0.013) [0.261] [(0.018)]	0.002 (0.006) [0.060] [(0.010)]	0.002 (0.005) [0.053] [(0.008)]	-0.003 (0.009) [0.292] [(0.017)]	0.004 (0.006) [0.059] [(0.010)]	0.003 (0.005) [0.053] [(0.008)]
0	-0.002 (0.011) [0.221] [(0.018)]	-0.009 (0.006) [0.051] [(0.009)]	-0.004 (0.005) [0.041] [(0.008)]	-0.010 (0.010) [0.248] [(0.017)]	-0.009 (0.006) [0.051] [(0.009)]	-0.003 (0.004) [0.041] [(0.008)]
1	-0.047 (0.010) [0.199] [(0.017)]	-0.014 (0.005) [0.049] [(0.009)]	-0.011 (0.004) [0.041] [(0.008)]	-0.054 (0.010) [0.221] [(0.017)]	-0.014 (0.005) [0.051] [(0.009)]	-0.011 (0.004) [0.041] [(0.008)]
2	-0.048 (0.011) [0.214] [(0.018)]	-0.009 (0.005) [0.058] [(0.009)]	-0.009 (0.004) [0.047] [(0.008)]	-0.053 (0.010) [0.235] [(0.017)]	-0.008 (0.005) [0.060] [(0.010)]	-0.009 (0.004) [0.047] [(0.008)]
3	-0.007 (0.012) [0.231] [(0.018)]	-0.004 (0.006) [0.055] [(0.010)]	0.001 (0.005) [0.030] [(0.008)]	-0.012 (0.011) [0.250] [(0.018)]	-0.004 (0.006) [0.057] [(0.010)]	0.002 (0.005) [0.029] [(0.008)]
4	0.007 (0.012) [0.211] [(0.018)]	-0.005 (0.006) [0.057] [(0.010)]	-0.007 (0.005) [0.035] [(0.008)]	0.001 (0.012) [0.231] [(0.018)]	-0.006 (0.006) [0.059] [(0.010)]	-0.007 (0.005) [0.036] [(0.008)]
5	0.015 (0.013) [0.268] [(0.018)]	0.003 (0.006) [0.048] [(0.009)]	-0.015 (0.005) [0.051] [(0.008)]	0.007 (0.012) [0.286] [(0.018)]	0.003 (0.006) [0.049] [(0.010)]	-0.015 (0.005) [0.051] [(0.009)]
6	0.008 (0.013) [0.301] [(0.019)]	-0.001 (0.006) [0.072] [(0.010)]	-0.003 (0.005) [0.047] [(0.009)]	0.002 (0.013) [0.318] [(0.019)]	0.000 (0.006) [0.073] [(0.010)]	-0.003 (0.006) [0.048] [(0.009)]
7	0.019 (0.014) [0.278] [(0.020)]	0.002 (0.007) [0.050] [(0.011)]	0.002 (0.006) [0.043] [(0.009)]	0.012 (0.013) [0.294] [(0.020)]	0.003 (0.007) [0.050] [(0.011)]	0.002 (0.006) [0.043] [(0.009)]
8	0.022 (0.014) [0.276] [(0.021)]	-0.016 (0.007) [0.068] [(0.011)]	-0.005 (0.006) [0.042] [(0.010)]	0.013 (0.014) [0.296] [(0.021)]	-0.016 (0.007) [0.068] [(0.012)]	-0.005 (0.006) [0.044] [(0.010)]
9	0.028 (0.015) [0.283] [(0.022)]	-0.013 (0.007) [0.065] [(0.012)]	-0.009 (0.006) [0.048] [(0.010)]	0.023 (0.014) [0.290] [(0.022)]	-0.013 (0.007) [0.066] [(0.012)]	-0.010 (0.006) [0.050] [(0.010)]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. All coefficients are scaled to represent the effect of 12 months of incarceration. The table reports an effect estimate and its standard error and the untreated complier mean and its standard error for the outcome listed in the column header in the period relative to initial filing date indicated in rows. Standard errors clustered by defendant are shown in parentheses.

Table D.21: Ohio: Self employment estimates

	(1)	(2)	(3)	(4)	(5)	(6)
	Without controls			With controls		
	Has 1040	Any NEC	Any TNT	Has 1040	Any NEC	Any TNT
-4	-0.002 (0.012) [0.315] [(0.024)]	0.010 (0.009) [0.025] [(0.015)]	-0.001 (0.007) [0.019] [(0.013)]	-0.015 (0.015) [0.363] [(0.030)]	0.021 (0.011) [0.004] [(0.020)]	0.004 (0.009) [0.012] [(0.016)]
-3	0.019 (0.010) [0.298] [(0.020)]	0.000 (0.008) [0.035] [(0.013)]	0.003 (0.007) [0.023] [(0.012)]	0.030 (0.012) [0.317] [(0.025)]	0.001 (0.010) [0.045] [(0.017)]	0.014 (0.009) [0.010] [(0.015)]
-2	-0.012 (0.009) [0.349] [(0.018)]	0.001 (0.008) [0.048] [(0.012)]	-0.012 (0.007) [0.054] [(0.011)]	-0.014 (0.011) [0.394] [(0.022)]	-0.009 (0.010) [0.067] [(0.016)]	-0.015 (0.008) [0.059] [(0.013)]
-1	-0.005 (0.010) [0.345] [(0.019)]	0.006 (0.008) [0.043] [(0.012)]	0.004 (0.007) [0.031] [(0.011)]	-0.002 (0.013) [0.386] [(0.024)]	0.000 (0.010) [0.062] [(0.016)]	-0.001 (0.009) [0.039] [(0.014)]
0	-0.047 (0.014) [0.318] [(0.022)]	-0.010 (0.008) [0.051] [(0.012)]	-0.009 (0.007) [0.043] [(0.012)]	-0.038 (0.017) [0.349] [(0.028)]	-0.009 (0.010) [0.056] [(0.016)]	-0.005 (0.009) [0.039] [(0.015)]
1	-0.072 (0.014) [0.344] [(0.023)]	-0.020 (0.007) [0.060] [(0.012)]	-0.008 (0.007) [0.045] [(0.012)]	-0.074 (0.018) [0.373] [(0.029)]	-0.023 (0.010) [0.073] [(0.016)]	-0.009 (0.009) [0.051] [(0.015)]
2	-0.039 (0.015) [0.325] [(0.024)]	-0.015 (0.008) [0.070] [(0.012)]	-0.009 (0.007) [0.047] [(0.012)]	-0.055 (0.018) [0.383] [(0.029)]	-0.016 (0.010) [0.077] [(0.016)]	-0.017 (0.009) [0.060] [(0.016)]
3	-0.022 (0.015) [0.331] [(0.024)]	-0.014 (0.008) [0.072] [(0.013)]	0.000 (0.008) [0.039] [(0.013)]	-0.028 (0.018) [0.374] [(0.030)]	-0.019 (0.010) [0.081] [(0.016)]	-0.003 (0.010) [0.044] [(0.016)]
4	-0.017 (0.015) [0.343] [(0.024)]	-0.007 (0.008) [0.057] [(0.013)]	-0.013 (0.008) [0.059] [(0.013)]	-0.027 (0.019) [0.393] [(0.030)]	-0.014 (0.010) [0.073] [(0.016)]	-0.013 (0.010) [0.066] [(0.016)]
5	0.014 (0.015) [0.316] [(0.024)]	0.000 (0.008) [0.053] [(0.013)]	0.014 (0.008) [0.022] [(0.013)]	-0.003 (0.019) [0.376] [(0.030)]	-0.007 (0.010) [0.073] [(0.017)]	0.013 (0.010) [0.028] [(0.016)]
6	0.007 (0.016) [0.345] [(0.025)]	0.007 (0.009) [0.055] [(0.013)]	0.008 (0.008) [0.042] [(0.013)]	-0.002 (0.020) [0.390] [(0.030)]	0.000 (0.011) [0.083] [(0.017)]	0.002 (0.011) [0.055] [(0.017)]
7	0.000 (0.017) [0.344] [(0.025)]	-0.007 (0.009) [0.057] [(0.013)]	0.002 (0.009) [0.043] [(0.013)]	-0.006 (0.020) [0.392] [(0.030)]	-0.005 (0.011) [0.060] [(0.017)]	0.002 (0.011) [0.050] [(0.016)]
8	0.008 (0.017) [0.332] [(0.026)]	0.003 (0.009) [0.050] [(0.014)]	0.003 (0.009) [0.052] [(0.013)]	0.010 (0.021) [0.374] [(0.030)]	-0.001 (0.012) [0.053] [(0.017)]	-0.001 (0.011) [0.070] [(0.016)]
9	0.004 (0.018) [0.344] [(0.026)]	0.007 (0.010) [0.050] [(0.014)]	0.006 (0.009) [0.045] [(0.014)]	0.018 (0.022) [0.364] [(0.030)]	0.007 (0.012) [0.058] [(0.017)]	0.008 (0.011) [0.050] [(0.016)]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. All coefficients are scaled to represent the effect of 12 months of incarceration. The table reports an effect estimate and its standard error and the untreated complier mean and its standard error for the outcome listed in the column header in the period relative to initial filing date indicated in rows. Standard errors clustered by defendant are shown in parentheses.

Table D.22: Incapacitation estimates

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	North Carolina				Ohio			
	Prev. wage	Pred. in state	Pred. other state	Share Free wages	Prev. wage	Pred. in state	Pred. other state	Share Free wages
-4	-21.817 (209.223) [2609.205] [(325.999)]	52.146 (146.344) [3232.122] [(224.114)]	117.716 (175.045) [2720.772] [(269.907)]	-39.690 (617.907) [4527.576] [(678.606)]	761.181 (623.783) [5226.951] [(1130.693)]	651.450 (477.110) [5483.910] [(858.082)]	552.441 (391.859) [5607.657] [(703.957)]	253.068 (780.153) [7262.692] [(1461.679)]
-3	46.828 (208.923) [2909.502] [(326.641)]	174.721 (143.981) [3047.707] [(223.017)]	242.665 (172.636) [2651.420] [(268.619)]	-519.742 (685.813) [4530.680] [(905.653)]	1136.851 (586.262) [4763.278] [(987.400)]	963.968 (449.537) [5139.877] [(750.397)]	817.183 (370.099) [5316.457] [(616.767)]	1439.042 (735.901) [5010.658] [(1233.862)]
-2	6.296 (203.651) [2880.249] [(321.938)]	144.967 (137.724) [2798.201] [(218.477)]	199.628 (165.922) [2633.197] [(263.847)]	-101.602 (631.076) [5210.005] [(930.576)]	568.349 (547.044) [6001.854] [(885.146)]	613.004 (418.204) [6001.714] [(670.520)]	530.823 (344.907) [5906.077] [(552.292)]	3226.137 (2313.555) [1004.951] [(4203.479)]
-1	6.227 (204.195) [2978.280] [(319.896)]	150.982 (137.048) [2549.125] [(215.609)]	201.805 (166.710) [2694.967] [(262.099)]	361.727 (616.631) [3224.542] [(775.712)]	560.425 (546.623) [5991.613] [(885.889)]	636.231 (419.185) [5831.068] [(673.096)]	558.591 (345.881) [5516.546] [(554.734)]	711.201 (3776.141) [11432.740] [(4077.576)]
0	-18.424 (199.072) [3083.560] [(321.648)]	141.514 (131.952) [2014.573] [(212.942)]	180.199 (162.002) [2534.831] [(261.016)]	-599.121 (575.927) [2831.982] [(522.120)]	-391.674 (532.716) [6110.515] [(886.215)]	-225.109 (406.604) [5293.874] [(672.842)]	-217.788 (332.973) [4561.418] [(550.840)]	549.783 (555.818) [5265.915] [(838.834)]
1	-711.703 (159.691) [2819.331] [(311.058)]	-481.282 (106.738) [2237.271] [(205.266)]	-562.490 (130.912) [2690.343] [(252.119)]	-1015.356 (1314.066) [2849.259] [(380.918)]	-1805.222 (517.572) [6265.774] [(881.530)]	-1632.228 (398.132) [5666.019] [(670.727)]	-1405.056 (323.951) [4794.750] [(543.921)]	6322.604 (5393.686) [4637.079] [(1420.582)]
2	-845.516 (149.367) [2669.480] [(304.440)]	-779.724 (103.795) [2951.990] [(203.932)]	-802.833 (124.310) [3052.047] [(247.847)]	-624.127 (1818.803) [3861.799] [(632.183)]	-844.528 (520.412) [6187.540] [(881.199)]	-784.147 (401.476) [5946.922] [(674.911)]	-770.042 (325.081) [5480.035] [(545.423)]	1169.316 (1309.197) [6460.679] [(1057.108)]
3	-539.218 (164.778) [2585.590] [(308.483)]	-503.065 (115.464) [3292.271] [(208.322)]	-504.387 (138.834) [3356.352] [(252.878)]	1800.831 (1669.751) [3806.698] [(1059.038)]	-409.283 (527.007) [6131.411] [(881.373)]	-353.033 (409.909) [6097.445] [(679.872)]	-419.062 (330.491) [5659.779] [(548.067)]	4082.048 (2733.650) [4369.884] [(1911.116)]
4	-305.445 (178.340) [2580.838] [(310.854)]	-262.488 (125.917) [3647.855] [(210.292)]	-241.566 (152.061) [3795.782] [(255.668)]	1249.412 (1337.199) [2936.242] [(1586.525)]	-6.192 (533.160) [5974.388] [(880.692)]	-5.050 (417.821) [6268.700] [(683.292)]	-113.852 (336.068) [5710.276] [(550.102)]	-1308.732 (2357.685) [5818.472] [(1174.504)]
5	-77.823 (181.373) [2201.773] [(310.040)]	-25.622 (130.361) [3224.144] [(211.115)]	36.544 (157.323) [3320.655] [(256.349)]	330.272 (463.463) [3657.861] [(488.826)]	220.145 (524.280) [5926.816] [(859.773)]	239.038 (411.937) [6225.209] [(669.303)]	105.783 (331.132) [5612.599] [(538.956)]	161.775 (914.125) [6015.633] [(1248.551)]
6	-54.564 (191.482) [2365.977] [(329.522)]	-34.028 (136.421) [3347.245] [(222.115)]	47.689 (164.902) [3462.251] [(270.458)]	516.984 (551.945) [3648.963] [(455.189)]	336.868 (554.525) [5973.814] [(860.772)]	386.213 (435.510) [6260.802] [(669.063)]	238.863 (349.784) [5572.897] [(538.213)]	-1253.757 (1283.050) [6786.042] [(1672.556)]
7	-161.070 (204.564) [2543.874] [(348.457)]	-63.844 (145.363) [3325.195] [(236.192)]	31.299 (175.269) [3387.610] [(287.323)]	-298.530 (669.435) [2542.681] [(523.273)]	464.304 (578.266) [5728.701] [(859.538)]	549.239 (454.931) [5934.100] [(669.294)]	357.393 (365.449) [5376.458] [(538.664)]	2021.271 (1429.840) [4462.478] [(1804.409)]
8	-175.009 (226.219) [2859.264] [(378.908)]	-41.646 (158.907) [3483.752] [(257.745)]	66.351 (191.912) [3573.414] [(313.594)]	210.772 (808.357) [4410.819] [(1165.974)]	843.438 (600.745) [5200.668] [(871.062)]	915.485 (474.842) [5710.559] [(679.724)]	690.100 (382.868) [5131.456] [(548.781)]	661.689 (1089.940) [5089.639] [(1121.188)]
9	-172.246 (238.982) [2971.546] [(401.414)]	45.328 (165.561) [3319.112] [(276.343)]	145.141 (200.280) [3526.619] [(335.663)]	1077.115 (884.484) [2613.159] [(1037.698)]	842.117 (622.889) [5344.811] [(886.648)]	908.213 (492.397) [6115.735] [(693.181)]	698.620 (397.635) [5488.639] [(560.390)]	1093.286 (837.168) [5784.058] [(1088.603)]

Notes: This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. All coefficients are scaled to represent the effect of 12 months of incarceration. The table reports an effect estimate and its standard error and the untreated complier mean and its standard error for the outcome listed in the column header in the period relative to initial filing date indicated in rows. Standard errors clustered by defendant are shown in parentheses.

Table D.23: Incapacitation estimates (with controls)

	North Carolina				Ohio			
	Prev. wage	Pred. in state	Pred. other state	Share Free wages	Prev. wage	Pred. in state	Pred. other state	Share Free wages
-4	-31.506 (81.373) [3170.544] [(279.231)]	-23.333 (63.118) [3721.389] [(191.269)]	1.776 (66.877) [3696.545] [(210.695)]	61.261 (562.578) [4901.970] [(638.603)]	-5.145 (92.334) [5383.521] [(399.137)]	-48.861 (69.650) [5924.367] [(287.113)]	-39.644 (64.575) [5761.470] [(257.386)]	-523.308 (424.540) [7333.586] [(870.736)]
-3	56.592 (71.542) [3369.000] [(280.173)]	94.977 (55.215) [3508.218] [(189.778)]	108.255 (58.400) [3593.493] [(208.773)]	-592.105 (648.029) [5015.197] [(907.676)]	14.390 (85.182) [5457.304] [(356.188)]	-42.305 (61.870) [5939.353] [(254.395)]	-34.196 (56.982) [5753.143] [(228.977)]	-359.275 (446.904) [6657.580] [(835.868)]
-2	-8.893 (70.170) [3364.713] [(275.429)]	20.973 (50.545) [3325.184] [(183.761)]	14.906 (54.213) [3568.051] [(202.325)]	-211.783 (575.901) [5841.906] [(922.665)]	-47.355 (89.180) [5677.663] [(331.527)]	-57.540 (57.218) [5955.717] [(232.291)]	-49.023 (52.394) [5712.162] [(210.017)]	1748.618 (1699.294) [2273.330] [(3051.824)]
-1	-9.158 (64.509) [3465.881] [(273.460)]	-17.241 (45.537) [3154.802] [(180.563)]	-18.966 (49.425) [3522.379] [(199.020)]	114.779 (569.119) [3925.558] [(764.315)]	-21.513 (88.961) [5648.722] [(330.561)]	-50.080 (56.816) [5566.564] [(230.740)]	-43.351 (51.630) [5335.651] [(209.337)]	828.971 (2889.842) [9387.822] [(2448.291)]
0	-42.307 (60.805) [3579.810] [(272.861)]	-47.287 (41.429) [2625.698] [(177.561)]	-59.479 (45.541) [3178.087] [(196.339)]	-794.547 (566.838) [3437.217] [(515.184)]	-874.719 (103.122) [5810.994] [(328.179)]	-738.184 (71.055) [4806.717] [(226.054)]	-691.544 (65.000) [4486.021] [(204.905)]	29.110 (298.608) [4614.261] [(473.275)]
1	-752.452 (112.845) [3323.466] [(273.082)]	-643.692 (77.573) [2789.512] [(177.667)]	-771.463 (87.440) [3353.703] [(196.962)]	-1279.150 (1313.673) [3427.125] [(373.412)]	-2023.885 (163.321) [6001.174] [(331.769)]	-1803.603 (122.216) [5164.527] [(229.118)]	-1672.941 (111.777) [4791.655] [(206.109)]	3358.063 (3427.785) [4109.406] [(815.936)]
2	-874.079 (126.957) [3164.397] [(268.102)]	-910.126 (89.503) [3450.542] [(178.618)]	-971.735 (97.672) [3672.632] [(196.372)]	-899.958 (1830.703) [4408.192] [(629.839)]	-1155.227 (146.235) [5837.563] [(334.564)]	-1102.600 (105.039) [5378.057] [(233.625)]	-1074.305 (96.831) [5417.064] [(210.650)]	1292.813 (1162.435) [5724.384] [(681.004)]
3	-559.627 (117.856) [3072.123] [(270.026)]	-634.870 (84.717) [3782.148] [(181.697)]	-689.719 (92.154) [4019.127] [(199.738)]	1677.223 (1686.237) [4170.305] [(1069.725)]	-786.439 (139.452) [5733.136] [(341.389)]	-790.088 (100.087) [5559.291] [(240.777)]	-767.949 (92.187) [5594.780] [(217.259)]	2639.314 (2057.979) [4006.563] [(1289.532)]
4	-323.418 (111.587) [3063.316] [(272.456)]	-398.780 (82.760) [4125.540] [(184.515)]	-428.471 (90.064) [4408.567] [(202.962)]	1055.206 (1350.428) [3388.968] [(1616.675)]	-514.546 (130.568) [5636.028] [(339.200)]	-578.582 (94.142) [5736.056] [(240.982)]	-556.897 (86.656) [5693.555] [(217.457)]	-2199.976 (2097.465) [5243.881] [(793.879)]
5	-77.415 (109.765) [2688.405] [(272.920)]	-122.083 (82.155) [3718.145] [(187.924)]	-133.144 (89.845) [3971.205] [(206.717)]	323.866 (451.373) [3938.201] [(480.065)]	-284.305 (143.520) [5463.008] [(355.047)]	-351.025 (103.121) [5534.887] [(253.512)]	-338.785 (94.318) [5466.159] [(229.244)]	207.814 (813.191) [4394.076] [(982.201)]
6	-73.671 (115.770) [2826.478] [(287.473)]	-154.707 (84.688) [3812.006] [(196.825)]	-162.201 (93.170) [4112.370] [(217.181)]	352.087 (541.033) [4069.825] [(452.201)]	-308.203 (148.977) [5553.404] [(364.065)]	-316.433 (106.581) [5547.659] [(258.780)]	-295.291 (97.027) [5388.525] [(233.536)]	-1202.185 (1161.988) [5930.838] [(1391.214)]
7	-65.131 (116.752) [2793.922] [(307.308)]	-99.387 (85.763) [3614.237] [(211.459)]	-95.485 (94.224) [3846.564] [(232.924)]	-292.689 (660.435) [2609.035] [(519.675)]	-185.838 (157.547) [5401.869] [(371.141)]	-202.692 (111.342) [5276.605] [(263.277)]	-196.072 (101.810) [5198.972] [(238.384)]	1095.227 (875.013) [4325.069] [(1157.117)]
8	50.590 (117.802) [2837.831] [(333.245)]	40.634 (88.271) [3512.338] [(229.072)]	49.159 (97.113) [3766.221] [(252.408)]	194.240 (812.241) [4406.650] [(1168.661)]	-18.641 (168.159) [5225.583] [(386.007)]	-69.984 (119.104) [5319.525] [(274.636)]	-68.791 (109.191) [5156.443] [(249.857)]	-52.804 (843.437) [5296.839] [(849.830)]
9	-9.382 (123.484) [3074.142] [(353.818)]	15.349 (91.819) [3638.920] [(242.120)]	9.483 (101.021) [3973.460] [(266.565)]	889.993 (889.102) [3049.182] [(1033.659)]	66.161 (176.183) [5315.020] [(403.010)]	-15.696 (124.448) [5657.389] [(287.444)]	-35.059 (114.141) [5496.781] [(262.280)]	507.287 (920.304) [4882.892] [(1259.208)]

Notes: This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. All coefficients are scaled to represent the effect of 12 months of incarceration. The table reports an effect estimate and its standard error and the untreated complier mean and its standard error for the outcome listed in the column header in the period relative to initial filing date indicated in rows. Standard errors clustered by defendant are shown in parentheses.

Table D.24: North Carolina: heterogeneity by prior incarceration

	(1)			(2)			(3)			(4)			(5)			(6)		
	Never previously incarcerated						Previously incarcerated											
	Days incar	Any W2	W2 earnings	Days incar	Any W2	W2 earnings	Days incar	Any W2	W2 earnings	Days incar	Any W2	W2 earnings	Days incar	Any W2	W2 earnings	Days incar	Any W2	W2 earnings
-4	0.005 (0.005) [0.000] [(0.000)]	-0.013 (0.038) [0.521] [(0.045)]	-1306.014 (699.719) [5205.294] [(997.617)]	3.973 (4.461) [67.847] [(5.221)]	0.012 (0.018) [0.423] [(0.024)]	143.619 (268.369) [3152.109] [(390.545)]												
-3	0.004 (0.004) [0.002] [(0.002)]	0.042 (0.038) [0.428] [(0.045)]	-340.387 (769.671) [5980.085] [(950.717)]	2.116 (4.241) [74.852] [(5.098)]	-0.011 (0.016) [0.406] [(0.023)]	121.857 (252.167) [3010.622] [(388.427)]												
-2	0.001 (0.001) [0.000] [(0.000)]	-0.014 (0.035) [0.480] [(0.043)]	-75.384 (756.645) [4948.034] [(928.709)]	6.380 (3.980) [74.618] [(4.860)]	0.006 (0.015) [0.353] [(0.022)]	22.505 (243.686) [3025.473] [(375.015)]												
-1	0.002 (0.001) [0.001] [(0.001)]	0.068 (0.036) [0.454] [(0.043)]	305.057 (761.455) [4029.952] [(931.652)]	6.787 (3.614) [66.852] [(4.297)]	-0.007 (0.015) [0.351] [(0.022)]	-63.430 (228.654) [3098.191] [(370.508)]												
0	7.402 (4.053) [2.948] [(1.235)]	-0.008 (0.035) [0.381] [(0.043)]	-445.603 (602.574) [3483.503] [(817.586)]	11.809 (2.820) [27.990] [(2.692)]	-0.002 (0.015) [0.345] [(0.022)]	-138.486 (192.017) [2631.378] [(328.481)]												
1	91.632 (12.076) [24.739] [(5.874)]	-0.119 (0.030) [0.365] [(0.043)]	-1019.729 (526.029) [2998.059] [(796.214)]	75.363 (5.150) [57.772] [(4.184)]	-0.087 (0.013) [0.317] [(0.022)]	-650.746 (173.836) [2556.634] [(319.879)]												
2	86.690 (10.159) [57.388] [(8.206)]	-0.054 (0.031) [0.297] [(0.043)]	-1198.046 (516.886) [3344.958] [(845.818)]	73.489 (4.546) [78.044] [(5.158)]	-0.056 (0.013) [0.328] [(0.022)]	-840.347 (196.211) [3172.625] [(348.915)]												
3	50.131 (8.834) [72.649] [(8.388)]	0.007 (0.035) [0.343] [(0.043)]	-477.175 (587.269) [3545.194] [(903.679)]	37.721 (4.187) [83.285] [(5.244)]	0.005 (0.015) [0.310] [(0.022)]	-455.797 (230.313) [3335.844] [(369.201)]												
4	22.337 (9.184) [64.308] [(8.750)]	0.048 (0.036) [0.314] [(0.042)]	107.938 (683.479) [3974.335] [(939.342)]	19.653 (4.342) [78.342] [(5.273)]	0.021 (0.015) [0.310] [(0.022)]	-151.579 (251.333) [3224.782] [(388.843)]												
5	2.737 (9.658) [64.036] [(8.689)]	0.019 (0.036) [0.391] [(0.042)]	377.861 (733.039) [5203.486] [(944.939)]	3.374 (4.692) [76.393] [(5.637)]	0.029 (0.015) [0.336] [(0.022)]	126.044 (269.694) [3629.006] [(414.657)]												
6	3.284 (9.144) [47.590] [(8.442)]	-0.009 (0.039) [0.378] [(0.045)]	142.143 (891.003) [5474.429] [(1011.562)]	11.333 (4.685) [65.278] [(5.884)]	0.025 (0.016) [0.329] [(0.022)]	89.911 (285.580) [4177.355] [(444.149)]												
7	-11.263 (9.294) [46.848] [(9.118)]	0.049 (0.041) [0.294] [(0.046)]	344.340 (915.872) [4728.722] [(1074.367)]	16.406 (4.882) [59.652] [(6.328)]	0.004 (0.016) [0.305] [(0.024)]	60.912 (308.881) [3850.644] [(477.901)]												
8	-2.957 (9.247) [51.448] [(9.281)]	0.047 (0.042) [0.294] [(0.048)]	325.479 (986.797) [4808.756] [(1090.431)]	9.922 (5.062) [53.793] [(6.579)]	0.023 (0.017) [0.302] [(0.025)]	187.739 (338.273) [3790.902] [(526.709)]												
9	1.906 (9.150) [52.778] [(8.622)]	0.037 (0.043) [0.347] [(0.050)]	1424.146 (1105.878) [5546.743] [(1195.835)]	6.885 (5.286) [53.912] [(6.877)]	0.027 (0.018) [0.305] [(0.027)]	342.870 (366.473) [4072.395] [(584.973)]												

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. All coefficients are scaled to represent the effect of 12 months of incarceration. The table reports an effect estimate and its standard error and the untreated complier mean and its standard error for the outcome listed in the column header in the period relative to initial filing date indicated in rows. Standard errors clustered by defendant are shown in parentheses.

Table D.25: North Carolina: heterogeneity by prior incarceration (with controls)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Never previously incarcerated				Previously incarcerated			
	Days incar	Any W2	W2 earnings	Has 1040	Days incar	Any W2	W2 earnings	Has 1040
-4	0.007 (0.006) [0.000] [(0.000)]	0.001 (0.026) [0.502] [(0.048)]	-367.329 (423.178) [3839.626] [(1038.756)]	-0.0026768 (0.0243404) [0.3795044] [0.0476888]	3.245 (4.419) [67.934] [(5.246)]	0.014 (0.013) [0.439] [(0.022)]	8.053 (152.836) [3621.852] [(325.537)]	-0.006 (0.011) [0.275] [(0.019)]
-3	0.008 (0.007) [0.002] [(0.002)]	0.026 (0.023) [0.444] [(0.048)]	178.190 (340.127) [5076.602] [(1012.507)]	0.047846 (0.0213328) [0.3131736] [0.0462205]	1.104 (4.181) [75.260] [(5.121)]	-0.009 (0.011) [0.415] [(0.020)]	76.844 (118.218) [3335.426] [(313.814)]	-0.001 (0.009) [0.270] [(0.018)]
-2	0.004 (0.005) [0.000] [(0.000)]	-0.048 (0.021) [0.532] [(0.045)]	0.726 (297.026) [4619.380] [(985.463)]	-0.0285114 (0.0193201) [0.4014324] [0.0448212]	5.498 (3.908) [75.230] [(4.866)]	0.005 (0.010) [0.363] [(0.020)]	2.735 (109.761) [3314.474] [(299.009)]	0.006 (0.009) [0.241] [(0.017)]
-1	0.002 (0.003) [0.001] [(0.001)]	0.022 (0.023) [0.523] [(0.045)]	173.889 (370.223) [4010.981] [(955.117)]	-0.0105098 (0.0223429) [0.3634304] [0.0450507]	5.305 (3.521) [67.895] [(4.275)]	-0.010 (0.011) [0.362] [(0.020)]	-93.062 (128.194) [3383.460] [(308.536)]	0.000 (0.010) [0.279] [(0.018)]
0	7.189 (4.045) [2.904] [(1.255)]	-0.045 (0.031) [0.439] [(0.044)]	-617.833 (419.590) [3629.389] [(826.594)]	-0.0130608 (0.0284102) [0.2755025] [0.0431595]	10.531 (2.821) [28.943] [(2.695)]	-0.005 (0.014) [0.355] [(0.021)]	-169.392 (148.339) [2862.096] [(300.745)]	-0.013 (0.011) [0.245] [(0.019)]
1	90.925 (12.034) [24.737] [(5.956)]	-0.151 (0.030) [0.414] [(0.044)]	-1229.108 (456.802) [3230.287] [(792.424)]	-0.094299 (0.0257178) [0.2634096] [0.0424044]	74.591 (5.219) [58.971] [(4.228)]	-0.089 (0.012) [0.325] [(0.021)]	-681.873 (152.352) [2737.570] [(302.689)]	-0.050 (0.011) [0.219] [(0.019)]
2	85.255 (10.082) [59.269] [(8.287)]	-0.082 (0.029) [0.334] [(0.043)]	-1435.763 (466.758) [3558.914] [(852.893)]	-0.0807966 (0.0273952) [0.2642104] [0.041354]	72.056 (4.593) [79.467] [(5.201)]	-0.056 (0.013) [0.335] [(0.021)]	-858.664 (175.055) [3337.179] [(333.162)]	-0.052 (0.012) [0.238] [(0.020)]
3	48.618 (8.807) [75.207] [(8.446)]	-0.020 (0.033) [0.375] [(0.044)]	-711.263 (539.112) [3760.681] [(908.777)]	-0.0238866 (0.0306487) [0.2477047] [0.0428392]	35.526 (4.229) [84.943] [(5.288)]	0.007 (0.015) [0.315] [(0.021)]	-463.855 (208.787) [3496.901] [(354.524)]	-0.014 (0.013) [0.255] [(0.020)]
4	20.132 (9.204) [67.349] [(8.800)]	0.021 (0.034) [0.346] [(0.043)]	-207.560 (653.609) [4341.931] [(958.116)]	0.001165 (0.0317173) [0.2590166] [0.0423724]	17.314 (4.396) [80.098] [(5.318)]	0.022 (0.015) [0.316] [(0.021)]	-171.302 (230.552) [3382.948] [(374.877)]	-0.004 (0.013) [0.230] [(0.020)]
5	-0.050 (9.783) [66.754] [(8.723)]	-0.009 (0.034) [0.425] [(0.043)]	-20.177 (675.820) [5692.332] [(971.143)]	-0.0242434 (0.0328182) [0.3552998] [0.0434059]	0.791 (4.775) [78.341] [(5.690)]	0.029 (0.015) [0.340] [(0.021)]	107.532 (250.746) [3784.386] [(403.274)]	0.016 (0.014) [0.266] [(0.020)]
6	0.625 (9.180) [50.709] [(8.496)]	-0.040 (0.037) [0.417] [(0.045)]	-263.002 (828.783) [5959.356] [(1023.265)]	-0.0666721 (0.0359837) [0.4138214] [0.0447754]	8.956 (4.753) [67.342] [(5.958)]	0.027 (0.015) [0.330] [(0.023)]	76.215 (266.756) [4295.854] [(435.649)]	0.014 (0.014) [0.288] [(0.021)]
7	-12.969 (9.248) [49.287] [(9.122)]	0.018 (0.038) [0.330] [(0.046)]	-115.988 (841.910) [5272.543] [(1086.700)]	0.0124457 (0.0372075) [0.349037] [0.0456578]	14.166 (4.933) [61.929] [(6.418)]	0.004 (0.016) [0.306] [(0.024)]	78.244 (289.515) [3911.873] [(472.194)]	0.006 (0.015) [0.276] [(0.023)]
8	-4.684 (9.154) [54.150] [(9.318)]	0.014 (0.039) [0.334] [(0.049)]	-219.389 (900.283) [5470.222] [(1130.104)]	-0.0063499 (0.037675) [0.3011799] [0.0476478]	7.706 (5.102) [55.963] [(6.660)]	0.024 (0.017) [0.301] [(0.025)]	239.637 (318.424) [3787.880] [(522.514)]	0.013 (0.016) [0.291] [(0.024)]
9	0.035 (9.025) [55.208] [(8.647)]	0.004 (0.040) [0.387] [(0.052)]	802.212 (1007.834) [6379.043] [(1257.909)]	0.0102606 (0.0391356) [0.3306438] [0.0497069]	4.399 (5.322) [56.611] [(6.983)]	0.027 (0.017) [0.305] [(0.027)]	361.691 (343.134) [4090.655] [(574.841)]	0.027 (0.016) [0.269] [(0.026)]

Notes: This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. All coefficients are scaled to represent the effect of 12 months of incarceration. The table reports an effect estimate and its standard error and the untreated complier mean and its standard error for the outcome listed in the column header in the period relative to initial filing date indicated in rows. Standard errors clustered by defendant are shown in parentheses.

Table D.26: Ohio: heterogeneity by prior incarceration

	(1)			(2)			(3)			(4)			(5)			(6)		
	Never previously incarcerated						Previously incarcerated											
	Days incar	Any W2	W2 earnings	Days incar	Any W2	W2 earnings	Days incar	Any W2	W2 earnings	Days incar	Any W2	W2 earnings	Days incar	Any W2	W2 earnings	Days incar	Any W2	W2 earnings
-4	-0.254 (0.651) [2.018] [(1.100)]	0.043 (0.029) [0.450] [(0.054)]	668.721 (794.554) [6326.051] [(1536.930)]	-6.151 (5.946) [67.045] [(8.000)]	0.010 (0.024) [0.461] [(0.035)]	460.195 (431.154) [3182.998] [(634.400)]												
-3	-0.153 (0.587) [1.790] [(0.929)]	0.012 (0.025) [0.578] [(0.045)]	1062.895 (730.833) [5661.937] [(1324.039)]	-5.208 (5.769) [69.877] [(7.045)]	0.009 (0.024) [0.458] [(0.031)]	352.259 (425.952) [3459.914] [(580.536)]												
-2	0.136 (0.515) [1.134] [(0.739)]	0.030 (0.023) [0.575] [(0.040)]	554.286 (667.891) [6371.735] [(1172.644)]	0.141 (5.404) [65.948] [(6.228)]	0.040 (0.023) [0.416] [(0.028)]	312.325 (406.171) [3195.807] [(526.078)]												
-1	0.081 (0.496) [2.087] [(0.697)]	0.036 (0.024) [0.563] [(0.040)]	494.128 (652.298) [6799.254] [(1141.551)]	-2.750 (4.816) [60.889] [(5.449)]	0.073 (0.023) [0.355] [(0.028)]	562.548 (405.589) [2783.044] [(522.215)]												
0	49.491 (3.871) [0.364] [(1.070)]	0.062 (0.024) [0.402] [(0.041)]	-186.288 (580.197) [5129.463] [(1033.946)]	66.061 (5.595) [15.012] [(2.466)]	-0.018 (0.022) [0.390] [(0.028)]	-60.674 (381.150) [2557.357] [(491.753)]												
1	129.377 (8.472) [-18.294] [(3.840)]	-0.098 (0.024) [0.524] [(0.041)]	-1537.074 (582.019) [5439.373] [(1052.031)]	122.981 (8.380) [15.866] [(4.132)]	-0.070 (0.021) [0.379] [(0.027)]	-319.704 (374.366) [2766.292] [(504.451)]												
2	64.213 (4.679) [-0.456] [(5.260)]	-0.070 (0.024) [0.547] [(0.041)]	-1326.522 (609.689) [6506.965] [(1102.511)]	49.563 (5.341) [37.021] [(5.486)]	-0.021 (0.021) [0.349] [(0.027)]	334.245 (399.647) [2679.617] [(517.404)]												
3	40.982 (4.189) [12.945] [(5.822)]	-0.014 (0.024) [0.466] [(0.042)]	-304.409 (639.073) [5326.343] [(1152.257)]	28.542 (5.334) [51.353] [(5.873)]	-0.028 (0.022) [0.362] [(0.027)]	57.085 (424.477) [3259.186] [(544.199)]												
4	30.878 (4.025) [17.383] [(5.924)]	0.013 (0.024) [0.426] [(0.042)]	-28.569 (658.512) [5392.961] [(1178.451)]	19.596 (5.340) [44.544] [(5.894)]	-0.002 (0.022) [0.336] [(0.027)]	149.626 (447.198) [3323.496] [(572.298)]												
5	18.209 (4.129) [20.320] [(6.128)]	0.025 (0.024) [0.398] [(0.042)]	98.294 (680.464) [5592.097] [(1211.165)]	18.010 (5.416) [43.738] [(5.770)]	-0.030 (0.022) [0.350] [(0.027)]	345.724 (459.454) [3137.370] [(597.846)]												
6	12.429 (4.296) [16.737] [(6.127)]	0.038 (0.025) [0.396] [(0.042)]	947.328 (724.719) [4940.180] [(1263.811)]	14.826 (5.349) [39.305] [(5.561)]	0.019 (0.023) [0.281] [(0.028)]	524.227 (499.144) [2948.917] [(626.552)]												
7	13.304 (4.288) [17.626] [(6.087)]	0.040 (0.027) [0.375] [(0.043)]	530.373 (774.255) [5579.233] [(1297.710)]	13.414 (5.504) [40.724] [(5.637)]	0.019 (0.023) [0.283] [(0.027)]	851.350 (519.069) [2699.647] [(635.128)]												
8	9.948 (4.417) [22.483] [(6.084)]	0.011 (0.027) [0.393] [(0.044)]	278.345 (818.706) [6704.284] [(1352.512)]	2.872 (5.517) [47.436] [(5.569)]	0.038 (0.025) [0.282] [(0.028)]	858.682 (566.403) [3039.736] [(671.256)]												
9	12.112 (4.721) [15.817] [(5.997)]	0.037 (0.029) [0.398] [(0.045)]	709.722 (895.771) [6490.773] [(1437.647)]	-1.987 (5.656) [41.890] [(5.609)]	0.035 (0.025) [0.286] [(0.029)]	703.535 (602.132) [3236.817] [(710.615)]												

Notes: This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. All coefficients are scaled to represent the effect of 12 months of incarceration. The table reports an effect estimate and its standard error and the untreated complier mean and its standard error for the outcome listed in the column header in the period relative to initial filing date indicated in rows. Standard errors clustered by defendant are shown in parentheses.

Table D.27: Ohio: heterogeneity by prior incarceration (with controls)

	(1)	(2)	(3)	(4)	(5)	(6)
	Never previously incarcerated			Previously incarcerated		
	Days incar	Any W2	W2 earnings	Days incar	Any W2	W2 earnings
-4	-0.535 (0.611) [2.304] [(1.048)]	0.021 (0.018) [0.488] [(0.039)]	-46.470 (354.439) [7537.536] [(895.246)]	-6.188 (5.655) [67.371] [(7.853)]	-0.017 (0.017) [0.489] [(0.029)]	43.467 (215.315) [3611.299] [(473.484)]
-3	-0.331 (0.542) [1.908] [(0.879)]	-0.021 (0.015) [0.630] [(0.032)]	88.082 (259.270) [7241.642] [(701.443)]	-5.254 (5.483) [70.180] [(6.908)]	-0.028 (0.016) [0.494] [(0.026)]	-187.746 (166.415) [3983.911] [(410.597)]
-2	-0.008 (0.473) [1.233] [(0.706)]	-0.004 (0.013) [0.628] [(0.027)]	-30.061 (229.818) [7256.729] [(617.743)]	1.044 (5.059) [65.043] [(6.039)]	0.003 (0.014) [0.451] [(0.023)]	-67.548 (153.756) [3535.986] [(369.852)]
-1	-0.055 (0.459) [2.189] [(0.665)]	0.002 (0.015) [0.616] [(0.029)]	-73.867 (289.883) [7661.991] [(669.721)]	-2.451 (4.496) [60.551] [(5.276)]	0.036 (0.016) [0.388] [(0.024)]	200.507 (190.126) [3101.955] [(389.518)]
0	50.018 (3.932) [0.377] [(1.062)]	0.038 (0.020) [0.441] [(0.036)]	-642.760 (394.860) [5837.663] [(769.406)]	65.322 (5.516) [15.157] [(2.450)]	-0.039 (0.020) [0.409] [(0.026)]	-331.301 (255.337) [2799.107] [(402.103)]
1	130.866 (8.642) [-18.610] [(3.827)]	-0.120 (0.022) [0.558] [(0.038)]	-1978.318 (467.756) [6157.179] [(855.529)]	122.427 (8.331) [16.073] [(4.142)]	-0.086 (0.020) [0.396] [(0.026)]	-548.085 (285.886) [2987.721] [(435.028)]
2	64.966 (4.702) [-1.281] [(5.207)]	-0.091 (0.022) [0.581] [(0.038)]	-1790.633 (505.476) [7286.853] [(925.019)]	49.226 (5.279) [37.246] [(5.473)]	-0.036 (0.020) [0.364] [(0.026)]	69.672 (316.577) [2928.948] [(459.662)]
3	41.671 (4.162) [11.770] [(5.729)]	-0.033 (0.022) [0.497] [(0.039)]	-770.458 (534.267) [6120.904] [(982.212)]	28.149 (5.263) [51.711] [(5.856)]	-0.043 (0.020) [0.376] [(0.026)]	-220.495 (348.835) [3520.349] [(494.899)]
4	31.495 (3.982) [16.367] [(5.807)]	-0.006 (0.022) [0.456] [(0.039)]	-502.234 (557.373) [6192.626] [(1017.548)]	19.327 (5.254) [44.753] [(5.871)]	-0.014 (0.020) [0.348] [(0.026)]	-109.959 (373.247) [3563.024] [(523.534)]
5	19.280 (4.046) [18.839] [(5.975)]	0.006 (0.023) [0.428] [(0.039)]	-403.977 (585.749) [6434.884] [(1062.211)]	17.958 (5.314) [43.927] [(5.728)]	-0.042 (0.021) [0.361] [(0.027)]	74.435 (391.677) [3389.877] [(550.880)]
6	12.862 (4.240) [16.113] [(6.002)]	0.017 (0.023) [0.428] [(0.040)]	415.774 (624.880) [5822.171] [(1113.963)]	14.593 (5.274) [39.810] [(5.548)]	0.004 (0.021) [0.295] [(0.027)]	200.494 (431.224) [3240.788] [(581.260)]
7	13.269 (4.250) [17.576] [(5.969)]	0.019 (0.025) [0.408] [(0.040)]	43.167 (679.934) [6367.073] [(1158.414)]	13.208 (5.420) [41.158] [(5.626)]	0.005 (0.022) [0.296] [(0.027)]	441.998 (446.441) [3058.144] [(585.010)]
8	9.883 (4.371) [22.419] [(5.965)]	-0.011 (0.025) [0.428] [(0.041)]	-275.734 (726.533) [7566.508] [(1218.180)]	2.801 (5.434) [47.705] [(5.534)]	0.024 (0.023) [0.295] [(0.027)]	402.363 (489.499) [3442.558] [(622.688)]
9	12.062 (4.703) [15.789] [(5.902)]	0.015 (0.027) [0.431] [(0.042)]	113.955 (801.646) [7390.197] [(1306.059)]	-2.219 (5.559) [42.220] [(5.590)]	0.023 (0.024) [0.295] [(0.028)]	297.167 (530.141) [3586.273] [(664.378)]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. All coefficients are scaled to represent the effect of 12 months of incarceration. The table reports an effect estimate and its standard error and the untreated complier mean and its standard error for the outcome listed in the column header in the period relative to initial filing date indicated in rows. Standard errors clustered by defendant are shown in parentheses.



Table D.28: Pager (2003) sample: dynamic estimates

	(1)	(2)	(3)	(4)	(5)	(6)
	North Carolina			Ohio		
	Days incar	Any W2	W2 earnings	Days incar	Any W2	W2 earnings
-4	17.193 (17.288) [43.784] [(22.910)]	0.028 (0.078) [0.749] [(0.101)]	1801.577 (1972.381) [2581.965] [(1014.348)]	10.772 (16.299) [17.170] [(22.036)]	-0.035 (0.162) [0.585] [(0.254)]	-4877.629 (2943.620) [9837.151] [(4288.945)]
-3	21.299 (19.173) [43.988] [(22.441)]	0.042 (0.091) [0.755] [(0.089)]	319.776 (1726.046) [3225.476] [(1147.085)]	-12.806 (14.254) [43.004] [(21.802)]	-0.245 (0.114) [1.091] [(0.178)]	-2397.671 (2078.138) [8666.315] [(3634.137)]
-2	40.191 (19.141) [60.255] [(21.766)]	-0.141 (0.078) [0.747] [(0.087)]	-2136.170 (1091.788) [5410.946] [(1217.779)]	-10.344 (13.375) [48.435] [(19.448)]	0.083 (0.083) [0.730] [(0.140)]	-1320.080 (1798.687) [7028.273] [(3200.325)]
-1	7.574 (11.155) [79.731] [(20.100)]	-0.063 (0.065) [0.700] [(0.092)]	-799.550 (971.528) [5167.084] [(1379.704)]	-17.163 (13.095) [41.796] [(16.228)]	-0.112 (0.091) [0.888] [(0.153)]	-3440.683 (1945.227) [9132.390] [(3364.994)]
0	23.407 (13.701) [19.646] [(13.942)]	0.025 (0.073) [0.674] [(0.104)]	-950.503 (828.997) [6077.400] [(1406.138)]	55.771 (13.180) [0.482] [(6.981)]	-0.004 (0.103) [0.434] [(0.183)]	-1436.176 (1769.387) [3680.230] [(3220.262)]
1	59.742 (18.858) [54.935] [(17.951)]	-0.159 (0.066) [0.609] [(0.104)]	-1082.905 (1179.750) [4452.341] [(1313.795)]	126.598 (22.317) [5.539] [(18.479)]	-0.116 (0.105) [0.464] [(0.184)]	-2009.340 (2047.737) [5508.901] [(3746.350)]
2	99.289 (19.088) [68.887] [(22.294)]	-0.134 (0.067) [0.496] [(0.102)]	-1149.889 (1333.034) [3748.709] [(1442.390)]	70.492 (19.648) [8.337] [(26.091)]	-0.087 (0.107) [0.541] [(0.186)]	-142.673 (2321.192) [3002.467] [(4290.922)]
3	83.117 (17.152) [48.750] [(24.477)]	0.001 (0.078) [0.373] [(0.103)]	-1352.880 (1305.908) [4929.125] [(1606.570)]	84.689 (21.766) [-16.563] [(30.300)]	-0.061 (0.107) [0.506] [(0.186)]	305.319 (2564.863) [2640.622] [(4635.832)]
4	27.822 (19.366) [61.921] [(25.379)]	-0.004 (0.078) [0.440] [(0.102)]	1739.130 (1496.026) [4285.940] [(1784.248)]	56.673 (21.116) [4.042] [(31.842)]	0.009 (0.108) [0.362] [(0.191)]	108.092 (2805.375) [5417.979] [(4956.354)]
5	20.424 (19.562) [54.384] [(26.971)]	0.109 (0.073) [0.382] [(0.102)]	2364.953 (1810.611) [4613.140] [(2093.149)]	-6.869 (21.078) [81.928] [(31.235)]	0.202 (0.118) [-0.127] [(0.227)]	1865.630 (2881.840) [376.458] [(5226.524)]
6	4.020 (20.254) [11.063] [(26.780)]	0.030 (0.076) [0.507] [(0.104)]	685.824 (1756.191) [4993.352] [(2269.198)]	-28.402 (22.061) [100.041] [(33.103)]	0.172 (0.115) [-0.014] [(0.208)]	1174.920 (3096.826) [1303.644] [(5421.855)]
7	-19.200 (24.485) [43.172] [(27.647)]	0.043 (0.067) [0.448] [(0.105)]	144.929 (1652.411) [3295.167] [(2435.631)]	-17.987 (21.273) [77.758] [(32.010)]	0.232 (0.117) [0.016] [(0.203)]	4397.952 (3225.424) [-4217.828] [(5741.456)]
8	-25.434 (23.310) [25.303] [(30.000)]	0.038 (0.085) [0.479] [(0.112)]	1014.468 (2298.111) [5143.544] [(2482.721)]	-37.973 (23.007) [94.036] [(33.460)]	0.267 (0.124) [-0.076] [(0.217)]	4601.490 (3414.290) [-5126.973] [(6115.532)]
9	-35.938 (27.367) [13.805] [(33.332)]	-0.013 (0.097) [0.434] [(0.119)]	2464.056 (2600.556) [5311.754] [(2824.115)]	-40.394 (23.167) [63.571] [(29.727)]	0.224 (0.119) [-0.022] [(0.211)]	7801.624 (3807.610) [-9292.891] [(6875.728)]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. All coefficients are scaled to represent the effect of 12 months of incarceration. The table reports an effect estimate and its standard error and the untreated complier mean and its standard error for the outcome listed in the column header in the period relative to initial filing date indicated in rows. Standard errors clustered by defendant are shown in parentheses.

Table D.29: Pager (2003) sample: dynamic estimates (with controls)

	(1)			(2)			(3)			(4)			(5)			(6)																																																																																	
	North Carolina						Ohio																																																																																										
	Days incar	Any W2	W2 earnings	Days incar	Any W2	W2 earnings	Days incar	Any W2	W2 earnings	Days incar	Any W2	W2 earnings	Days incar	Any W2	W2 earnings	Days incar	Any W2	W2 earnings																																																																															
-4	17.193 (17.288) [43.784] [(22.910)]	0.028 (0.078) [0.749] [(0.101)]	1801.577 (1972.381) [2581.965] [(1014.348)]	10.772 (16.299) [17.170] [(22.036)]	-0.035 (0.162) [0.585] [(0.254)]	-4877.629 (2943.620) [9837.151] [(4288.945)]	-3	21.299 (19.173) [43.988] [(22.441)]	0.042 (0.091) [0.755] [(0.089)]	319.776 (1726.046) [3225.476] [(1147.085)]	-12.806 (14.254) [43.004] [(21.802)]	-0.245 (0.114) [1.091] [(0.178)]	-2397.671 (2078.138) [8666.315] [(3634.137)]	-2	40.191 (19.141) [60.255] [(21.766)]	-0.141 (0.078) [0.747] [(0.087)]	-2136.170 (1091.788) [5410.946] [(1217.779)]	-10.344 (13.375) [48.435] [(19.448)]	0.083 (0.083) [0.730] [(0.140)]	-1320.080 (1798.687) [7028.273] [(3200.325)]	-1	7.574 (11.155) [79.731] [(20.100)]	-0.063 (0.065) [0.700] [(0.092)]	-799.550 (971.528) [5167.084] [(1379.704)]	-17.163 (13.095) [41.796] [(16.228)]	-0.112 (0.091) [0.888] [(0.153)]	-3440.683 (1945.227) [9132.390] [(3364.994)]	0	23.407 (13.701) [19.646] [(13.942)]	0.025 (0.073) [0.674] [(0.104)]	-950.503 (828.997) [6077.400] [(1406.138)]	55.771 (13.180) [0.482] [(6.981)]	-0.004 (0.103) [0.434] [(0.183)]	-1436.176 (1769.387) [3680.230] [(3220.262)]	1	59.742 (18.858) [54.935] [(17.951)]	-0.159 (0.066) [0.609] [(0.104)]	-1082.905 (1179.750) [4452.341] [(1313.795)]	126.598 (22.317) [5.539] [(18.479)]	-0.116 (0.105) [0.464] [(0.184)]	-2009.340 (2047.737) [5508.901] [(3746.350)]	2	99.289 (19.088) [68.887] [(22.294)]	-0.134 (0.067) [0.496] [(0.102)]	-1149.889 (1333.034) [3748.709] [(1442.390)]	70.492 (19.648) [8.337] [(26.091)]	-0.087 (0.107) [0.541] [(0.186)]	-142.673 (2321.192) [3002.467] [(4290.922)]	3	83.117 (17.152) [48.750] [(24.477)]	0.001 (0.078) [0.373] [(0.103)]	-1352.880 (1305.908) [4929.125] [(1606.570)]	84.689 (21.766) [-16.563] [(30.300)]	-0.061 (0.107) [0.506] [(0.186)]	305.319 (2564.863) [2640.622] [(4635.832)]	4	27.822 (19.366) [61.921] [(25.379)]	-0.004 (0.078) [0.440] [(0.102)]	1739.130 (1496.026) [4285.940] [(1784.248)]	56.673 (21.116) [4.042] [(31.842)]	0.009 (0.108) [0.362] [(0.191)]	108.092 (2805.375) [5417.979] [(4956.354)]	5	20.424 (19.562) [54.384] [(26.971)]	0.109 (0.073) [0.382] [(0.102)]	2364.953 (1810.611) [4613.140] [(2093.149)]	-6.869 (21.078) [81.928] [(31.235)]	0.202 (0.118) [-0.127] [(0.227)]	1865.630 (2881.840) [376.458] [(5226.524)]	6	4.020 (20.254) [11.063] [(26.780)]	0.030 (0.076) [0.507] [(0.104)]	685.824 (1756.191) [4993.352] [(2269.198)]	-28.402 (22.061) [100.041] [(33.103)]	0.172 (0.115) [-0.014] [(0.208)]	1174.920 (3096.826) [1303.644] [(5421.855)]	7	-19.200 (24.485) [43.172] [(27.647)]	0.043 (0.067) [0.448] [(0.105)]	144.929 (1652.411) [3295.167] [(2435.631)]	-17.987 (21.273) [77.758] [(32.010)]	0.232 (0.117) [0.016] [(0.203)]	4397.952 (3225.424) [-4217.828] [(5741.456)]	8	-25.434 (23.310) [25.303] [(30.000)]	0.038 (0.085) [0.479] [(0.112)]	1014.468 (2298.111) [5143.544] [(2482.721)]	-37.973 (23.007) [94.036] [(33.460)]	0.267 (0.124) [-0.076] [(0.217)]	4601.490 (3414.290) [-5126.973] [(6115.532)]	9	-35.938 (27.367) [13.805] [(33.332)]	-0.013 (0.097) [0.434] [(0.119)]	2464.056 (2600.556) [5311.754] [(2824.115)]	-40.394 (23.167) [63.571] [(29.727)]	0.224 (0.119) [-0.022] [(0.211)]	7801.624 (3807.610) [-9292.891] [(6875.728)]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. All coefficients are scaled to represent the effect of 12 months of incarceration. The table reports an effect estimate and its standard error and the untreated complier mean and its standard error for the outcome listed in the column header in the period relative to initial filing date indicated in rows. Standard errors clustered by defendant are shown in parentheses.

Table D.30: Filing of 1040: heterogeneity with respect to previous work history

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	North Carolina				Ohio			
	Less attached		More attached		Less attached		More attached	
	Any 1040	Cumu. 1040	Any 1040	Cumu. 1040	Any 1040	Cumu. 1040	Any 1040	Cumu. 1040
-4	-0.004 (0.014) [0.118] [(0.020)]		-0.008 (0.021) [0.555] [(0.030)]		-0.016 (0.017) [0.116] [(0.032)]		0.004 (0.035) [0.536] [(0.058)]	
-3	0.005 (0.013) [0.100] [(0.018)]		0.011 (0.020) [0.536] [(0.028)]		-0.010 (0.016) [0.113] [(0.028)]		0.046 (0.032) [0.494] [(0.049)]	
-2	-0.002 (0.014) [0.120] [(0.019)]		0.001 (0.019) [0.470] [(0.027)]		0.013 (0.017) [0.104] [(0.028)]		-0.038 (0.029) [0.597] [(0.042)]	
-1	0.000 (0.016) [0.177] [(0.021)]		0.002 (0.018) [0.410] [(0.027)]		0.009 (0.019) [0.185] [(0.031)]		-0.014 (0.029) [0.521] [(0.043)]	
0	-0.004 (0.014) [0.159] [(0.022)]	-0.004 (0.014) [0.159] [(0.022)]	-0.007 (0.017) [0.333] [(0.027)]	-0.007 (0.017) [0.333] [(0.027)]	-0.045 (0.019) [0.218] [(0.032)]	-0.021 (0.024) [0.198] [(0.044)]	-0.040 (0.029) [0.443] [(0.044)]	-0.040 (0.029) [0.443] [(0.044)]
1	-0.028 (0.013) [0.132] [(0.022)]	-0.032 (0.022) [0.290] [(0.037)]	-0.072 (0.015) [0.312] [(0.026)]	-0.079 (0.027) [0.645] [(0.046)]	-0.057 (0.020) [0.236] [(0.033)]	-0.076 (0.042) [0.453] [(0.076)]	-0.073 (0.029) [0.431] [(0.044)]	-0.113 (0.051) [0.874] [(0.077)]
2	-0.057 (0.014) [0.198] [(0.022)]	-0.088 (0.030) [0.488] [(0.051)]	-0.050 (0.016) [0.270] [(0.026)]	-0.129 (0.037) [0.915] [(0.064)]	-0.033 (0.020) [0.220] [(0.033)]	-0.112 (0.058) [0.688] [(0.106)]	-0.056 (0.029) [0.462] [(0.044)]	-0.169 (0.072) [1.336] [(0.109)]
3	-0.003 (0.016) [0.188] [(0.022)]	-0.092 (0.038) [0.676] [(0.065)]	-0.015 (0.017) [0.308] [(0.027)]	-0.143 (0.046) [1.224] [(0.082)]	-0.030 (0.020) [0.239] [(0.033)]	-0.139 (0.074) [0.935] [(0.136)]	-0.009 (0.029) [0.433] [(0.044)]	-0.178 (0.092) [1.769] [(0.141)]
4	0.013 (0.016) [0.165] [(0.023)]	-0.079 (0.047) [0.842] [(0.078)]	-0.003 (0.017) [0.294] [(0.026)]	-0.147 (0.057) [1.518] [(0.099)]	-0.026 (0.021) [0.274] [(0.033)]	-0.173 (0.090) [1.247] [(0.164)]	0.001 (0.029) [0.417] [(0.044)]	-0.177 (0.112) [2.186] [(0.171)]
5	0.030 (0.018) [0.231] [(0.024)]	-0.048 (0.056) [1.073] [(0.091)]	-0.009 (0.018) [0.339] [(0.027)]	-0.156 (0.067) [1.857] [(0.115)]	0.020 (0.021) [0.222] [(0.034)]	-0.185 (0.106) [1.540] [(0.192)]	0.025 (0.029) [0.402] [(0.044)]	-0.152 (0.132) [2.589] [(0.201)]
6	0.013 (0.019) [0.270] [(0.025)]	-0.039 (0.066) [1.303] [(0.109)]	-0.006 (0.018) [0.360] [(0.027)]	-0.175 (0.078) [2.217] [(0.135)]	0.025 (0.022) [0.245] [(0.034)]	-0.215 (0.129) [1.867] [(0.223)]	0.005 (0.030) [0.442] [(0.043)]	-0.180 (0.156) [3.055] [(0.229)]
7	0.031 (0.020) [0.262] [(0.027)]	-0.034 (0.079) [1.565] [(0.131)]	-0.001 (0.019) [0.317] [(0.028)]	-0.185 (0.090) [2.454] [(0.155)]	-0.012 (0.023) [0.286] [(0.035)]	-0.261 (0.154) [2.154] [(0.245)]	0.022 (0.030) [0.429] [(0.043)]	-0.221 (0.177) [3.533] [(0.255)]
8	0.031 (0.021) [0.253] [(0.029)]	-0.029 (0.095) [1.776] [(0.159)]	0.006 (0.019) [0.318] [(0.029)]	-0.188 (0.104) [2.747] [(0.177)]	0.006 (0.025) [0.259] [(0.036)]	-0.306 (0.172) [2.509] [(0.272)]	0.038 (0.032) [0.401] [(0.043)]	-0.139 (0.206) [3.907] [(0.285)]
9	0.056 (0.022) [0.264] [(0.031)]	0.031 (0.112) [2.014] [(0.185)]	0.005 (0.020) [0.314] [(0.030)]	-0.138 (0.117) [3.000] [(0.203)]	-0.003 (0.026) [0.262] [(0.037)]	-0.372 (0.196) [2.872] [(0.304)]	0.066 (0.033) [0.372] [(0.044)]	-0.083 (0.233) [4.273] [(0.317)]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. All coefficients are scaled to represent the effect of 12 months of incarceration. The table reports an effect estimate and its standard error and the untreated complier mean and its standard error for the outcome listed in the column header in the period relative to initial filing date indicated in rows. Standard errors clustered by defendant are shown in parentheses.

Table D.31: Filing of 1040: heterogeneity with respect to previous work history (with controls)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	North Carolina				Ohio			
	Less attached		More attached		Less attached		More attached	
	Any 1040	Cumu. 1040	Any 1040	Cumu. 1040	Any 1040	Cumu. 1040	Has 1040	Cumu. 1040
-4	-0.0013515		-0.010		-0.0018196		-0.001	
	0.0112667		(0.016)		0.0126689		(0.020)	
	0.1260184		[0.560]		0.0926445		[0.527]	
	0.0180282		[(0.029)]		0.0253235		[(0.038)]	
-3	0.0114402		0.005		-0.0001662		0.045	
	0.0096581		(0.013)		0.011167		(0.017)	
	0.1057286		[0.549]		0.0984508		[0.478]	
	0.0162244		[(0.028)]		0.0213278		[(0.031)]	
-2	-0.0019078		-0.001		0.0056616		-0.028	
	0.0094521		(0.012)		0.0111575		(0.014)	
	0.1320234		[0.478]		0.1144825		[0.549]	
	0.017337		[(0.027)]		0.0206407		[(0.026)]	
-1	-0.0050705		0.001		-0.0077442		-0.011	
	0.0112913		(0.012)		0.0131371		(0.015)	
	0.1954388		[0.420]		0.2079043		[0.471]	
	0.0193789		[(0.027)]		0.0238939		[(0.027)]	
0	-0.0076037	-0.008	-0.013	-0.013	-0.0574685	-0.057	-0.040	-0.040
	0.0136262	(0.014)	(0.015)	(0.015)	0.0177479	(0.018)	(0.020)	(0.020)
	0.1733113	[0.173]	[0.352]	[0.352]	0.2360353	[0.236]	[0.393]	[0.393]
	0.0212159	[(0.021)]	[(0.027)]	[(0.027)]	0.0293215	[(0.029)]	[(0.033)]	[(0.033)]
1	-0.0317632	-0.039	-0.077	-0.090	-0.0683259	-0.126	-0.077	-0.118
	0.0125023	(0.021)	(0.014)	(0.024)	0.0187971	(0.030)	(0.022)	(0.035)
	0.1464345	[0.320]	[0.327]	[0.680]	0.2539692	[0.490]	[0.421]	[0.814]
	0.0219257	[(0.036)]	[(0.026)]	[(0.046)]	0.0307885	[(0.051)]	[(0.034)]	[(0.057)]
2	-0.0597997	-0.099	-0.054	-0.144	-0.04417	-0.170	-0.037	-0.155
	0.0141563	(0.029)	(0.015)	(0.033)	0.0192503	(0.042)	(0.022)	(0.049)
	0.2104311	[0.530]	[0.284]	[0.964]	0.2372	[0.727]	[0.402]	[1.216]
	0.0222033	[(0.050)]	[(0.027)]	[(0.064)]	0.0312662	[(0.071)]	[(0.035)]	[(0.081)]
3	-0.0042767	-0.103	-0.021	-0.165	-0.0423404	-0.212	-0.002	-0.157
	0.0156304	(0.037)	(0.016)	(0.041)	0.0196062	(0.054)	(0.022)	(0.063)
	0.1971976	[0.727]	[0.326]	[1.290]	0.2569336	[0.984]	[0.391]	[1.607]
	0.0226728	[(0.064)]	[(0.027)]	[(0.082)]	0.0316855	[(0.090)]	[(0.035)]	[(0.104)]
4	0.0102463	-0.093	-0.010	-0.175	-0.0376698	-0.250	0.003	-0.154
	0.0162993	(0.045)	(0.017)	(0.051)	0.0200991	(0.066)	(0.023)	(0.076)
	0.176846	[0.904]	[0.312]	[1.601]	0.2913501	[1.275]	[0.384]	[1.991]
	0.0228051	[(0.077)]	[(0.027)]	[(0.098)]	0.0322137	[(0.110)]	[(0.035)]	[(0.127)]
5	0.0295367	-0.064	-0.021	-0.196	0.0079435	-0.242	0.018	-0.136
	0.0174376	(0.053)	(0.017)	(0.059)	0.0204903	(0.076)	(0.023)	(0.090)
	0.2332274	[1.137]	[0.362]	[1.964]	0.2414599	[1.517]	[0.379]	[2.369]
	0.023717	[(0.090)]	[(0.027)]	[(0.114)]	0.032753	[(0.128)]	[(0.035)]	[(0.149)]
6	0.0108321	-0.053	-0.014	-0.216	0.0150599	-0.249	0.000	-0.132
	0.018051	(0.064)	(0.018)	(0.069)	0.0215354	(0.092)	(0.023)	(0.105)
	0.2766821	[1.370]	[0.378]	[2.331]	0.2593989	[1.795]	[0.415]	[2.752]
	0.0252296	[(0.108)]	[(0.028)]	[(0.134)]	0.0332197	[(0.149)]	[(0.035)]	[(0.172)]
7	0.0240616	-0.071	-0.005	-0.199	-0.0221642	-0.268	0.019	-0.133
	0.0190645	(0.075)	(0.018)	(0.080)	0.0229911	(0.109)	(0.024)	(0.122)
	0.273321	[1.648]	[0.329]	[2.550]	0.3007013	[2.026]	[0.377]	[3.119]
	0.0272859	[(0.129)]	[(0.029)]	[(0.155)]	0.0336884	[(0.169)]	[(0.036)]	[(0.196)]
8	0.0180471	-0.086	-0.001	-0.189	-0.0064767	-0.328	0.020	-0.118
	0.0201738	(0.089)	(0.019)	(0.093)	0.0241778	(0.128)	(0.025)	(0.140)
	0.2679977	[1.859]	[0.339]	[2.822]	0.2765691	[2.352]	[0.377]	[3.530]
	0.0295996	[(0.157)]	[(0.030)]	[(0.178)]	0.0349718	[(0.195)]	[(0.037)]	[(0.220)]
9	0.0533716	-0.001	-0.003	-0.174	-0.0132502	-0.295	0.016	-0.103
	0.0218341	(0.105)	(0.019)	(0.104)	0.0252198	(0.148)	(0.025)	(0.159)
	0.262391	[2.056]	[0.329]	[3.130]	0.2757007	[2.526]	[0.396]	[3.907]
	0.0313357	[(0.183)]	[(0.031)]	[(0.204)]	0.0361953	[(0.226)]	[(0.037)]	[(0.244)]

Notes: This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. All coefficients are scaled to represent the effect of 12 months of incarceration. The table reports an effect estimate and its standard error and the untreated complier mean and its standard error for the outcome listed in the column header in the period relative to initial filing date indicated in rows. Standard errors clustered by defendant are shown in parentheses.

Table D.32: Filing of 1040: heterogeneity with respect to previous incarceration

	North Carolina				Ohio											
	(1)		(2)		(3)		(4)		(5)		(6)		(7)		(8)	
	Never prev incar		Prev incar		Never prev incar		Prev incar		Never prev incar		Prev incar		Never prev incar		Prev incar	
	Any 1040	Cumu. 1040	Any 1040	Cumu. 1040	Any 1040	Cumu. 1040	Any 1040	Cumu. 1040	Any 1040	Cumu. 1040	Any 1040	Cumu. 1040	Any 1040	Cumu. 1040	Any 1040	Cumu. 1040
-4	-0.017 (0.037) [0.380] [(0.046)]						-0.008 (0.030) [0.407] [(0.060)]						-0.021 (0.034) [0.276] [(0.045)]			
-3	0.048 (0.038) [0.302] [(0.045)]						0.042 (0.028) [0.340] [(0.051)]						0.008 (0.033) [0.268] [(0.040)]			
-2	-0.016 (0.035) [0.367] [(0.042)]						-0.010 (0.026) [0.443] [(0.045)]						-0.025 (0.030) [0.306] [(0.035)]			
-1	0.010 (0.035) [0.316] [(0.043)]						0.012 (0.026) [0.418] [(0.045)]						-0.029 (0.030) [0.315] [(0.036)]			
0	0.004 (0.032) [0.239] [(0.042)]	0.004 (0.032) [0.239] [(0.042)]			-0.012 (0.012) [0.238] [(0.020)]		-0.019 (0.026) [0.375] [(0.045)]		-0.019 (0.026) [0.375] [(0.045)]				-0.058 (0.029) [0.271] [(0.035)]			-0.058 (0.029) [0.271] [(0.035)]
1	-0.080 (0.027) [0.235] [(0.041)]	-0.076 (0.050) [0.474] [(0.073)]			-0.062 (0.020) [0.454] [(0.034)]		-0.069 (0.026) [0.416] [(0.045)]		-0.088 (0.045) [0.792] [(0.081)]				-0.064 (0.028) [0.265] [(0.035)]			-0.121 (0.049) [0.536] [(0.061)]
2	-0.066 (0.029) [0.240] [(0.041)]	-0.142 (0.067) [0.714] [(0.102)]			-0.114 (0.027) [0.688] [(0.047)]		-0.050 (0.026) [0.422] [(0.045)]		-0.137 (0.064) [1.213] [(0.114)]				-0.047 (0.029) [0.281] [(0.035)]			-0.168 (0.069) [0.817] [(0.085)]
3	-0.010 (0.032) [0.226] [(0.042)]	-0.153 (0.085) [0.940] [(0.129)]			-0.128 (0.034) [0.941] [(0.060)]		-0.007 (0.026) [0.385] [(0.045)]		-0.144 (0.082) [1.598] [(0.146)]				-0.047 (0.029) [0.312] [(0.035)]			-0.215 (0.087) [1.128] [(0.107)]
4	0.018 (0.033) [0.234] [(0.042)]	-0.135 (0.105) [1.173] [(0.157)]			-0.132 (0.042) [1.167] [(0.072)]		-0.002 (0.026) [0.410] [(0.045)]		-0.146 (0.099) [2.008] [(0.178)]				-0.052 (0.029) [0.314] [(0.035)]			-0.266 (0.106) [1.442] [(0.129)]
5	-0.007 (0.035) [0.328] [(0.043)]	-0.142 (0.127) [1.501] [(0.183)]			-0.115 (0.049) [1.430] [(0.084)]		0.014 (0.026) [0.391] [(0.045)]		-0.132 (0.117) [2.400] [(0.208)]				-0.015 (0.030) [0.308] [(0.035)]			-0.281 (0.124) [1.750] [(0.151)]
6	-0.044 (0.038) [0.381] [(0.044)]	-0.251 (0.160) [1.863] [(0.221)]			-0.113 (0.057) [1.715] [(0.099)]		0.023 (0.027) [0.404] [(0.045)]		-0.135 (0.137) [2.847] [(0.238)]				-0.030 (0.033) [0.317] [(0.036)]			-0.359 (0.157) [2.077] [(0.175)]
7	0.033 (0.040) [0.317] [(0.045)]	-0.228 (0.193) [2.119] [(0.255)]			-0.126 (0.067) [1.989] [(0.118)]		0.006 (0.027) [0.429] [(0.045)]		-0.172 (0.159) [3.300] [(0.267)]				-0.011 (0.033) [0.289] [(0.035)]			-0.356 (0.180) [2.333] [(0.191)]
8	0.019 (0.040) [0.257] [(0.047)]	-0.252 (0.222) [2.403] [(0.296)]			-0.116 (0.080) [2.245] [(0.139)]		0.028 (0.028) [0.404] [(0.045)]		-0.134 (0.181) [3.725] [(0.297)]				0.004 (0.034) [0.266] [(0.035)]			-0.354 (0.205) [2.585] [(0.211)]
9	0.033 (0.042) [0.298] [(0.049)]	-0.139 (0.257) [2.755] [(0.337)]			-0.070 (0.092) [2.451] [(0.161)]		0.023 (0.030) [0.411] [(0.045)]		-0.172 (0.211) [4.215] [(0.331)]				0.041 (0.033) [0.229] [(0.034)]			-0.258 (0.213) [2.770] [(0.232)]

Notes: This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. All coefficients are scaled to represent the effect of 12 months of incarceration. The table reports an effect estimate and its standard error and the untreated complier mean and its standard error for the outcome listed in the column header in the period relative to initial filing date indicated in rows. Standard errors clustered by defendant are shown in parentheses.

Table D.33: Filing of 1040: heterogeneity with respect to previous incarceration

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	North Carolina				Ohio			
	Never prev incar		Prev incar		Never prev incar		Prev incar	
	Any 1040	Cumu. 1040	Any 1040	Cumu. 1040	Any 1040	Cumu. 1040	Any 1040	Cumu. 1040
-4	-0.017 (0.037) [0.380] [(0.046)]				-0.003 (0.017) [0.372] [(0.038)]		-0.001 (0.015) [0.246] [(0.026)]	
-3	0.048 (0.038) [0.302] [(0.045)]				0.024 (0.015) [0.355] [(0.031)]		0.012 (0.013) [0.229] [(0.023)]	
-2	-0.016 (0.035) [0.367] [(0.042)]				-0.017 (0.013) [0.425] [(0.027)]		-0.005 (0.012) [0.251] [(0.020)]	
-1	0.010 (0.035) [0.316] [(0.043)]				-0.005 (0.015) [0.408] [(0.029)]		-0.006 (0.014) [0.265] [(0.021)]	
0	0.004 (0.032) [0.239] [(0.042)]	0.004 (0.032) [0.239] [(0.042)]		-0.012 (0.012) [0.238] [(0.020)]	-0.037 (0.020) [0.365] [(0.036)]	-0.037 (0.020) [0.365] [(0.036)]	-0.061 (0.017) [0.259] [(0.024)]	-0.061 (0.017) [0.259] [(0.024)]
1	-0.080 (0.027) [0.235] [(0.041)]	-0.076 (0.050) [0.474] [(0.073)]		-0.062 (0.020) [0.454] [(0.034)]	-0.094 (0.021) [0.439] [(0.037)]	-0.131 (0.034) [0.804] [(0.062)]	-0.045 (0.018) [0.227] [(0.024)]	-0.106 (0.029) [0.486] [(0.040)]
2	-0.066 (0.029) [0.240] [(0.041)]	-0.142 (0.067) [0.714] [(0.102)]		-0.114 (0.027) [0.688] [(0.047)]	-0.049 (0.021) [0.400] [(0.038)]	-0.180 (0.048) [1.204] [(0.087)]	-0.026 (0.018) [0.232] [(0.024)]	-0.132 (0.040) [0.718] [(0.056)]
3	-0.010 (0.032) [0.226] [(0.042)]	-0.153 (0.085) [0.940] [(0.129)]		-0.128 (0.034) [0.941] [(0.060)]	-0.018 (0.022) [0.375] [(0.038)]	-0.197 (0.062) [1.579] [(0.112)]	-0.027 (0.019) [0.275] [(0.024)]	-0.159 (0.050) [0.993] [(0.071)]
4	0.018 (0.033) [0.234] [(0.042)]	-0.135 (0.105) [1.173] [(0.157)]		-0.132 (0.042) [1.167] [(0.072)]	-0.006 (0.022) [0.390] [(0.039)]	-0.203 (0.075) [1.970] [(0.137)]	-0.035 (0.019) [0.287] [(0.025)]	-0.193 (0.061) [1.280] [(0.085)]
5	-0.007 (0.035) [0.328] [(0.043)]	-0.142 (0.127) [1.501] [(0.183)]		-0.115 (0.049) [1.430] [(0.084)]	0.017 (0.022) [0.368] [(0.039)]	-0.186 (0.088) [2.338] [(0.161)]	0.010 (0.020) [0.253] [(0.025)]	-0.184 (0.071) [1.532] [(0.100)]
6	-0.044 (0.038) [0.381] [(0.044)]	-0.251 (0.160) [1.863] [(0.221)]		-0.113 (0.057) [1.715] [(0.099)]	0.008 (0.023) [0.414] [(0.039)]	-0.171 (0.103) [2.735] [(0.187)]	0.005 (0.020) [0.258] [(0.025)]	-0.201 (0.086) [1.793] [(0.115)]
7	0.033 (0.040) [0.317] [(0.045)]	-0.228 (0.193) [2.119] [(0.255)]		-0.126 (0.067) [1.989] [(0.118)]	-0.004 (0.024) [0.410] [(0.040)]	-0.195 (0.124) [3.128] [(0.215)]	0.007 (0.021) [0.257] [(0.025)]	-0.185 (0.097) [2.003] [(0.129)]
8	0.019 (0.040) [0.257] [(0.047)]	-0.252 (0.222) [2.403] [(0.296)]		-0.116 (0.080) [2.245] [(0.139)]	0.012 (0.025) [0.398] [(0.041)]	-0.210 (0.143) [3.597] [(0.244)]	0.001 (0.022) [0.250] [(0.026)]	-0.207 (0.114) [2.273] [(0.147)]
9	0.033 (0.042) [0.298] [(0.049)]	-0.139 (0.257) [2.755] [(0.337)]		-0.070 (0.092) [2.451] [(0.161)]	0.005 (0.027) [0.418] [(0.042)]	-0.192 (0.166) [3.982] [(0.276)]	0.006 (0.022) [0.249] [(0.026)]	-0.164 (0.127) [2.475] [(0.165)]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. All coefficients are scaled to represent the effect of 12 months of incarceration. The table reports an effect estimate and its standard error and the untreated complier mean and its standard error for the outcome listed in the column header in the period relative to initial filing date indicated in rows. Standard errors clustered by defendant are shown in parentheses.

Table D.34: Spouse sample: dynamic estimates

	(1)			(2)			(3)			(4)			(5)			(6)		
	North Carolina			Ohio			North Carolina			Ohio			North Carolina			Ohio		
	Any W2 earnings	Cumu. W2 earnings	Any EIC claim	Any W2 earnings	Cumu. W2 earnings	Any EIC claim	Any W2 earnings	Cumu. W2 earnings	Any EIC claim	Any W2 earnings	Cumu. W2 earnings	Any EIC claim	Any W2 earnings	Cumu. W2 earnings	Any EIC claim	Any W2 earnings	Cumu. W2 earnings	Any EIC claim
-4	-0.018 (0.025) [0.806] [(0.034)]		-0.009 (0.065) [0.907] [(0.098)]	0.005 (0.041) [0.775] [(0.064)]		0.014 (0.096) [0.669] [(0.249)]												
-3	0.031 (0.024) [0.732] [(0.033)]		0.005 (0.064) [1.026] [(0.090)]	0.039 (0.040) [0.694] [(0.060)]		-0.058 (0.102) [0.793] [(0.229)]												
-2	-0.009 (0.023) [0.743] [(0.033)]		0.000 (0.060) [1.153] [(0.082)]	-0.018 (0.037) [0.788] [(0.055)]		-0.059 (0.094) [0.962] [(0.211)]												
-1	-0.027 (0.023) [0.713] [(0.033)]		0.019 (0.055) [1.171] [(0.073)]	0.010 (0.037) [0.702] [(0.056)]		-0.088 (0.094) [0.985] [(0.181)]												
0	-0.023 (0.024) [0.715] [(0.034)]	-731.861 (734.120) [10619.230] [(1071.578)]	0.035 (0.050) [1.127] [(0.070)]	-0.003 (0.038) [0.745] [(0.056)]	-96.139 (1735.315) [16159.550] [(2616.218)]	-0.065 (0.093) [0.898] [(0.165)]												
1	-0.022 (0.023) [0.738] [(0.034)]	-1385.137 (1438.476) [21900.520] [(2089.502)]	0.037 (0.050) [1.098] [(0.067)]	-0.001 (0.038) [0.763] [(0.056)]	-2138.727 (3425.160) [35162.730] [(5148.928)]	-0.118 (0.095) [0.949] [(0.148)]												
2	-0.016 (0.023) [0.715] [(0.034)]	-2399.191 (2140.860) [33187.360] [(3083.294)]	0.053 (0.047) [0.982] [(0.061)]	-0.017 (0.038) [0.738] [(0.057)]	-2452.408 (5090.814) [51576.120] [(7669.091)]	-0.037 (0.083) [0.894] [(0.130)]												
3	0.011 (0.024) [0.685] [(0.035)]	-2706.188 (2858.548) [44494.300] [(4095.727)]	0.047 (0.044) [0.926] [(0.060)]	0.043 (0.039) [0.649] [(0.057)]	-3754.035 (6780.477) [69628.590] [(10203.940)]	0.073 (0.079) [0.707] [(0.120)]												
4	0.007 (0.024) [0.720] [(0.034)]	-3001.561 (3576.105) [56853.080] [(5125.398)]	0.060 (0.044) [0.921] [(0.058)]	-0.004 (0.039) [0.671] [(0.058)]	-5431.261 (8470.587) [88352.780] [(12720.740)]	0.094 (0.073) [0.620] [(0.110)]												
5	-0.002 (0.024) [0.682] [(0.034)]	-3313.884 (4321.479) [69398.660] [(6170.807)]	0.022 (0.044) [0.865] [(0.060)]	-0.025 (0.039) [0.752] [(0.058)]	-7038.108 (10170.100) [108046.500] [(15249.100)]	0.006 (0.071) [0.754] [(0.107)]												
6	-0.004 (0.026) [0.682] [(0.037)]	-4492.749 (5385.931) [80691.880] [(7637.171)]	0.060 (0.046) [0.797] [(0.062)]	-0.044 (0.042) [0.748] [(0.059)]	-13925.980 (12770.180) [135184.700] [(18146.940)]	-0.046 (0.075) [0.767] [(0.107)]												
7	0.004 (0.027) [0.658] [(0.039)]	-9806.438 (6447.236) [94598.520] [(9086.268)]	0.077 (0.047) [0.727] [(0.064)]	-0.027 (0.042) [0.710] [(0.058)]	-9996.249 (14325.940) [145479.800] [(20209.460)]	0.011 (0.073) [0.701] [(0.103)]												
8	0.017 (0.030) [0.660] [(0.042)]	-11155.320 (7829.835) [108490.700] [(11206.320)]	0.033 (0.051) [0.777] [(0.068)]	-0.056 (0.045) [0.739] [(0.058)]	-9259.668 (17355.880) [162565.900] [(22991.400)]	0.056 (0.075) [0.543] [(0.099)]												
9	-0.024 (0.031) [0.708] [(0.045)]	-14598.020 (9188.156) [125218.100] [(13367.020)]	0.021 (0.050) [0.671] [(0.070)]	-0.001 (0.050) [0.648] [(0.062)]	-4970.049 (21675.060) [177327.200] [(27086.080)]	0.051 (0.081) [0.541] [(0.101)]												

Notes: This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. All coefficients are scaled to represent the effect of 12 months of incarceration. The table reports an effect estimate and its standard error and the untreated complier mean and its standard error for the outcome listed in the column header in the period relative to initial filing date indicated in rows. Standard errors clustered by defendant are shown in parentheses.

Table D.35: Spouse sample: dynamic estimates (controls)

	(1)	(2)	(3)	(4)	(5)	(6)
	North Carolina			Ohio		
	Any W2 earnings	Cumu. W2 earnings	Any EIC claim	Any W2 earnings	Cumu. W2 earnings	Any EIC claim
-4	-0.011 (0.025) [0.803] [(0.035)]		0.013 (0.064) [0.896] [(0.102)]	0.000 (0.031) [0.788] [(0.053)]		-0.004 (0.074) [0.671] [(0.168)]
-3	0.036 (0.024) [0.729] [(0.034)]		0.026 (0.063) [1.003] [(0.093)]	0.014 (0.030) [0.731] [(0.051)]		-0.023 (0.077) [0.708] [(0.159)]
-2	-0.003 (0.023) [0.736] [(0.034)]		0.021 (0.059) [1.123] [(0.085)]	0.010 (0.028) [0.763] [(0.048)]		-0.020 (0.072) [0.906] [(0.152)]
-1	-0.024 (0.023) [0.707] [(0.034)]		0.035 (0.054) [1.139] [(0.076)]	-0.001 (0.029) [0.720] [(0.049)]		-0.010 (0.067) [0.911] [(0.135)]
0	-0.023 (0.024) [0.713] [(0.035)]	-397.705 (722.233) [10493.280] [(1109.272)]	0.039 (0.049) [1.115] [(0.072)]	0.003 (0.029) [0.752] [(0.049)]	622.629 (1244.230) [14302.860] [(2134.267)]	-0.049 (0.067) [1.016] [(0.127)]
1	-0.024 (0.024) [0.737] [(0.035)]	-735.961 (1416.248) [21649.490] [(2165.741)]	0.037 (0.050) [1.085] [(0.068)]	-0.002 (0.029) [0.771] [(0.049)]	-92.666 (2437.887) [31086.370] [(4189.380)]	-0.078 (0.067) [1.019] [(0.119)]
2	-0.018 (0.023) [0.713] [(0.035)]	-1448.166 (2107.122) [32817.450] [(3198.667)]	0.051 (0.046) [0.973] [(0.062)]	-0.025 (0.029) [0.770] [(0.049)]	16.410 (3622.574) [46764.260] [(6229.394)]	0.040 (0.060) [0.861] [(0.106)]
3	0.009 (0.024) [0.685] [(0.036)]	-1458.371 (2815.106) [43972.040] [(4246.746)]	0.043 (0.043) [0.919] [(0.062)]	-0.006 (0.030) [0.721] [(0.050)]	-861.547 (4806.213) [63844.330] [(8258.792)]	0.068 (0.057) [0.785] [(0.098)]
4	0.004 (0.024) [0.720] [(0.035)]	-1460.314 (3525.202) [56158.300] [(5311.225)]	0.050 (0.043) [0.918] [(0.059)]	-0.028 (0.030) [0.732] [(0.050)]	-1770.123 (5993.120) [81557.460] [(10289.360)]	0.077 (0.054) [0.729] [(0.091)]
5	-0.004 (0.024) [0.680] [(0.035)]	-1490.840 (4267.778) [68481.230] [(6387.618)]	0.010 (0.043) [0.862] [(0.061)]	-0.034 (0.030) [0.781] [(0.050)]	-2326.122 (7187.604) [99761.730] [(12328.330)]	0.002 (0.052) [0.804] [(0.089)]
6	-0.006 (0.026) [0.679] [(0.038)]	-2151.153 (5312.608) [79168.910] [(7912.529)]	0.047 (0.045) [0.788] [(0.063)]	-0.028 (0.031) [0.754] [(0.051)]	-4023.783 (8615.967) [120805.900] [(14618.710)]	-0.035 (0.053) [0.832] [(0.089)]
7	0.000 (0.027) [0.654] [(0.040)]	-6626.121 (6320.813) [91825.700] [(9381.573)]	0.063 (0.045) [0.719] [(0.064)]	-0.042 (0.032) [0.756] [(0.051)]	-771.688 (9871.544) [130265.900] [(16540.660)]	-0.015 (0.052) [0.771] [(0.087)]
8	0.014 (0.030) [0.651] [(0.043)]	-6698.868 (7707.218) [103595.900] [(11591.040)]	0.017 (0.049) [0.770] [(0.069)]	-0.063 (0.035) [0.758] [(0.054)]	-5897.566 (12057.190) [157843.800] [(19558.680)]	0.002 (0.054) [0.660] [(0.086)]
9	-0.032 (0.031) [0.711] [(0.045)]	-10241.320 (8973.695) [119793.800] [(13706.270)]	-0.004 (0.048) [0.679] [(0.071)]	-0.026 (0.037) [0.697] [(0.057)]	-476.669 (14627.070) [171462.200] [(23283.560)]	-0.019 (0.056) [0.673] [(0.088)]

Notes: This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. All coefficients are scaled to represent the effect of 12 months of incarceration. The table reports an effect estimate and its standard error and the untreated complier mean and its standard error for the outcome listed in the column header in the period relative to initial filing date indicated in rows. Standard errors clustered by defendant are shown in parentheses.



Table D.36: Dynamic estimates on EIC receipt

	(1)		(2)		(3)		(4)	
	North Carolina				Ohio			
	No controls	Controls	No controls	Controls	No controls	Controls	No controls	Controls
-4	-0.012 (0.012) [0.185] [(0.016)]	-0.007 (0.010) [0.185] [(0.016)]	0.009 (0.015) [0.127] [(0.026)]	0.014 (0.013) [0.119] [(0.024)]				
-3	0.000 (0.011) [0.171] [(0.016)]	0.006 (0.009) [0.170] [(0.015)]	0.013 (0.014) [0.144] [(0.024)]	0.019 (0.012) [0.135] [(0.021)]				
-2	-0.001 (0.010) [0.163] [(0.016)]	0.005 (0.008) [0.160] [(0.015)]	-0.007 (0.014) [0.174] [(0.022)]	-0.006 (0.011) [0.173] [(0.019)]				
-1	-0.005 (0.011) [0.191] [(0.016)]	-0.001 (0.009) [0.192] [(0.015)]	0.001 (0.014) [0.169] [(0.022)]	0.002 (0.012) [0.168] [(0.019)]				
0	-0.011 (0.009) [0.175] [(0.015)]	-0.008 (0.009) [0.177] [(0.015)]	-0.019 (0.013) [0.162] [(0.022)]	-0.020 (0.012) [0.164] [(0.020)]				
1	-0.041 (0.008) [0.146] [(0.015)]	-0.039 (0.008) [0.148] [(0.015)]	-0.030 (0.013) [0.178] [(0.022)]	-0.031 (0.013) [0.179] [(0.021)]				
2	-0.034 (0.009) [0.153] [(0.015)]	-0.031 (0.009) [0.153] [(0.015)]	-0.016 (0.014) [0.179] [(0.022)]	-0.017 (0.013) [0.181] [(0.021)]				
3	-0.013 (0.010) [0.166] [(0.016)]	-0.011 (0.010) [0.167] [(0.016)]	-0.002 (0.014) [0.174] [(0.022)]	-0.004 (0.013) [0.176] [(0.021)]				
4	0.006 (0.010) [0.146] [(0.016)]	0.007 (0.010) [0.147] [(0.016)]	-0.006 (0.014) [0.198] [(0.022)]	-0.009 (0.013) [0.202] [(0.021)]				
5	0.009 (0.011) [0.156] [(0.016)]	0.009 (0.011) [0.158] [(0.016)]	0.005 (0.014) [0.176] [(0.022)]	0.003 (0.014) [0.180] [(0.022)]				
6	0.016 (0.011) [0.168] [(0.016)]	0.015 (0.011) [0.172] [(0.017)]	0.008 (0.015) [0.191] [(0.023)]	0.005 (0.014) [0.195] [(0.022)]				
7	0.011 (0.011) [0.150] [(0.017)]	0.009 (0.011) [0.155] [(0.017)]	0.007 (0.015) [0.195] [(0.023)]	0.004 (0.015) [0.198] [(0.022)]				
8	0.007 (0.012) [0.143] [(0.018)]	0.003 (0.012) [0.150] [(0.018)]	0.002 (0.016) [0.207] [(0.023)]	-0.002 (0.015) [0.211] [(0.022)]				
9	0.019 (0.013) [0.144] [(0.019)]	0.015 (0.012) [0.151] [(0.019)]	0.004 (0.016) [0.199] [(0.024)]	0.002 (0.016) [0.203] [(0.023)]				

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. All coefficients are scaled to represent the effect of 12 months of incarceration. The table reports an effect estimate and its standard error and the untreated complier mean and its standard error for the outcome listed in the column header in the period relative to initial filing date indicated in rows. Standard errors clustered by defendant are shown in parentheses.

Table D.37: Long-run effects on incarceration exposure (no controls)

	(1)	(2)	(3)
	Days / year	> 270 days	Cumulative days
Effect of 12 month sentence			
A. North Carolina ( $N = 306,254$ )			
5-9 years post-filing	5.60 (3.31) [66.45]	0.002 (0.008) [0.140]	222.08 (10.15) [396.60]
B. Ohio ( $N = 158,665$ )			
5-9 years post-filing	12.86 (2.61) [27.51]	0.029 (0.006) [0.067]	321.11 (14.50) [108.77]
C. Average			
5-9 years post-filing	9.23 (2.11) [46.98]	0.015 (0.005) [0.103]	271.60 (8.85) [252.69]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on key incarceration outcomes. Panel A reports effects for North Carolina. Panel B reports effects for Ohio. And Panel C reports equally-weighted average effects. All coefficients are scaled to represent the effect of 12 months of incarceration. Column 1 reports effects on days incarcerated in the calendar year. Column 2 reports effects on an indicator for being incarcerated for more than 270 days in the calendar year. Column 3 reports effects on cumulative incarceration since the year of sentencing. All effects estimated pooling five to nine years relative to initial filing date except for Column 3, which is estimated as of five years post-filing. Standard errors clustered by defendant are shown in parentheses. Estimated untreated mean outcomes for compliers shifted from zero to some incarceration are shown in square brackets and calculated as detailed in Section A.1.

Table D.38: Effects on defendants' co-parents (no controls)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Any W2	W2 earnings	Cumu. any W2	Cumu. W2 earn	EIC deps	Cumu. EIC deps	Any cofiler
Effect of 12 month sentence							
A. North Carolina ( $N = 87,108$ )							
IV: 5-9 years post filing	0.011 (0.021) [0.678]	-195.435 (840.21) [13528]	-0.045 (0.11) [4.26]	-3313.884 (4321.479) [69399]	0.024 (0.04) [0.78]	0.317 (0.27) [6.04]	-0.005 (0.01) [0.05]
OLS: 5-9 years post filing	-0.001 (0.002)	-151.890 (62.95)	-0.007 (0.01)	-1092.776 (339.195)	0.002 (0.00)	-0.043 (0.02)	-0.004 (0.00)
B. Ohio ( $N = 41,686$ )							
IV: 5-9 years post filing	-0.049 (0.027) [0.771]	-790.796 (1400.20) [18348]	-0.119 (0.15) [4.57]	-3480.271 (7640.574) [101396]	-0.022 (0.05) [0.78]	-0.053 (0.36) [5.60]	-0.006 (0.01) [0.07]
OLS: 5-9 years post filing	0.004 (0.001)	51.218 (59.24)	0.023 (0.01)	-114.882 (317.191)	0.004 (0.00)	0.023 (0.02)	-0.004 (0.00)
C. Average							
IV: 5-9 years post filing	-0.019 (0.017) [0.724]	-493.116 (816.47) [15938]	-0.082 (0.09) [4.41]	-3397.078 (4389.008) [85397]	0.001 (0.03) [0.78]	0.132 (0.22) [5.82]	-0.005 (0.00) [0.06]
OLS: 5-9 years post filing	0.002 (0.001)	-50.336 (43.22)	0.008 (0.01)	-603.829 (232.198)	0.003 (0.00)	-0.010 (0.01)	-0.004 (0.00)

*Notes:* This table presents two-stage least squares (IV) and ordinary least squares (OLS) estimates of the effect of months of incarceration on defendants' co-parents outcomes pooling the five to nine years after case filing. Co-parents are defined as any individual with whom the defendant had a child before the case was filed according to SSA records. If a defendant has multiple co-parents, the outcome is the average. Panel A reports effects for North Carolina. Panel B reports effects for Ohio. And Panel C reports equally-weighted average effects. All coefficients are scaled to represent the effect of 12 months of incarceration. Standard errors clustered by defendant are shown in parentheses. Estimated untreated mean outcomes for compliers shifted from zero to some incarceration are shown in square brackets and calculated as detailed in Section A.1.

Table D.39: Effects one year after filing date (with no controls)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
	Any W2	W2 earnings	Filed 1040	Adj. Gross	Tot. taxes	EIC benefits	Any EIC	EIC deps	Any TNT	Tot. TNT	Any NEC	Tot. NEC
Effect of 12 month sentence												
	A. North Carolina ( $N = 306,254$ )											
1 year post filing	-0.083 (0.011) [0.297]	-582.478 (163.58) [2206.62]	-0.047 (0.01) [0.20]	-568.835 (264.946) [2962.654]	-9.590 (27.88) [161.40]	-95.795 (23.44) [297.56]	-0.041 (0.01) [0.15]	-0.043 (0.01) [0.12]	-0.011 (0.00) [0.04]	-68.582 (56.80) [470.48]	-0.014 (0.00) [0.05]	-48.604 (113.22) [595.80]
	B. Ohio ( $N = 158,665$ )											
1 year post filing	-0.086 (0.017) [0.458]	-1022.711 (379.89) [4197.37]	-0.066 (0.02) [0.33]	-1521.428 (585.567) [6400.682]	-76.095 (69.46) [366.69]	-75.959 (43.10) [370.22]	-0.030 (0.01) [0.18]	-0.017 (0.02) [0.13]	-0.010 (0.01) [0.05]	-150.149 (107.43) [550.01]	-0.020 (0.01) [0.06]	-176.832 (156.63) [495.23]
	C. Average											
1 year post filing	-0.085 (0.010) [0.378]	-802.595 (206.80) [3202.00]	-0.056 (0.01) [0.27]	-1045.131 (321.358) [4681.668]	-42.842 (37.42) [264.04]	-85.877 (24.53) [333.89]	-0.036 (0.01) [0.16]	-0.030 (0.01) [0.13]	-0.011 (0.00) [0.04]	-109.365 (60.76) [510.25]	-0.017 (0.00) [0.05]	-112.718 (96.63) [545.51]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on taxes and transfers. Panel A reports effects for North Carolina. Panel B reports effects for Ohio. Panel C reports equally-weighted average effects. All coefficients are scaled to represent the effect of 12 months of incarceration. All effects estimated one year post case filing date. Standard errors clustered by defendant are shown in parentheses. Estimated untreated mean outcomes for compliers shifted from zero to some incarceration are shown in square brackets and calculated as detailed in Section A.1.

Table D.40: Sensitivity of OLS estimates to controls

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Incarceration		Labor market and tax filing activity					
	Days / year	Cumu. Days	Any W2	W2 earnings	Has 1040	Cumu. any	Cumu. earnings	Cumu. has 1040
A. North Carolina ( $N = 306,254$ )								
Specification								
Baseline	24.66 (0.19)	212.53 (1.55)	-0.013 (0.001)	-152.13 (16.69)	-0.008 (0.001)	-0.227 (0.003)	-2304.66 (73.14)	-0.170 (0.003)
+ prior earnings	24.48 (0.19)	211.70 (1.54)	-0.009 (0.001)	-85.74 (16.35)	-0.006 (0.001)	-0.199 (0.003)	-1957.65 (66.57)	-0.150 (0.003)
+ prior industry	24.47 (0.19)	211.57 (1.54)	-0.009 (0.001)	-85.80 (16.36)	-0.006 (0.001)	-0.198 (0.003)	-1953.51 (66.68)	-0.149 (0.003)
+ criminal history	23.83 (0.19)	206.88 (1.51)	-0.009 (0.001)	-73.91 (16.40)	-0.005 (0.001)	-0.195 (0.003)	-1917.74 (66.76)	-0.144 (0.003)
+ demographics	23.07 (0.20)	203.26 (1.51)	-0.009 (0.001)	-104.78 (16.36)	-0.005 (0.001)	-0.198 (0.003)	-2033.33 (66.76)	-0.144 (0.003)
B. Ohio ( $N = 158,665$ )								
Baseline	21.85 (0.20)	179.70 (2.45)	-0.027 (0.000)	-520.07 (13.49)	-0.014 (0.000)	-0.24 (0.00)	-3314.19 (76.37)	-0.179 (0.003)
+ prior earnings	21.58 (0.19)	177.77 (2.41)	-0.022 (0.000)	-418.44 (14.55)	-0.010 (0.000)	-0.21 (0.00)	-2791.69 (74.08)	-0.146 (0.003)
+ prior industry	21.57 (0.19)	177.70 (2.41)	-0.022 (0.000)	-418.44 (14.51)	-0.010 (0.000)	-0.21 (0.00)	-2789.47 (73.89)	-0.146 (0.003)
+ criminal history	21.45 (0.19)	176.14 (2.39)	-0.022 (0.000)	-421.52 (14.57)	-0.010 (0.000)	-0.21 (0.00)	-2816.15 (74.16)	-0.145 (0.003)
+ demographics	21.06 (0.19)	173.95 (2.36)	-0.023 (0.000)	-453.32 (14.59)	-0.009 (0.000)	-0.21 (0.00)	-2927.53 (75.01)	-0.139 (0.003)

*Notes:* This table examines the sensitivity of ordinary least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes. Panel A reports effects for North Carolina. Panel B reports effects for Ohio. All coefficients are scaled to represent the effect of 12 months of incarceration and are estimated pooling the periods five to nine years post filing date. Standard errors clustered by defendant are shown in parentheses. The first row in each panel presents the baseline effects reported in Table B.6. The subsequent rows then add additional controls incrementally, with the second row starting with controls for pre-filing earnings and tax-filing, including mean wages and means of indicators for having any wage and any 1040. The third row then adds fixed effects for modal two-digit NAICS of employment pre-filing. The fourth row adds third-order polynomials in the number of previous charges and previous incarceration spells, as well as an indicator for first time conviction. The fifth row adds indicators for sex and race and a third-order polynomial in age. Column 1 reports effects on days incarcerated in the calendar year. Column 2 reports effects on cumulative incarceration since the year of sentencing. Column 3 reports effects on an indicator for any W2 earnings. Column 4 reports effects on total W2 earnings, including zeros. Column 5 reports effects on an indicator for filing a 1040. Column 6 reports cumulative effects on an indicator for any W2 earnings. Column 7 reports cumulative effects on total W2 earnings, including zeros. Column 8 reports cumulative effects on 1040 filing.

Table D.41: Effects of incarceration on additional outcomes (no controls)

	(1)	(2)	(3)	(4)	(5)
	Died before t	Died in t	Any W2 or 1040	In NC/OH	Cumu OPE earn
Effect of 12 month sentence					
A. North Carolina ( $N = 306,254$ )					
5-9 years post-filing	-0.005 (0.004) [0.040]	-0.006 (0.005) [0.043]	0.026 (0.011) [0.467]	0.017 (0.011) [0.415]	2.513 (7.121) -[40.216]
B. Ohio ( $N = 158,665$ )					
5-9 years post-filing	-0.013 (0.006) [0.049]	-0.005 (0.006) [0.046]	0.024 (0.014) [0.468]	0.008 (0.014) [0.425]	-25.059 (24.072) [21.060]
C. Average					
5-9 years post-filing	-0.009 (0.004) [0.045]	-0.006 (0.004) [0.045]	0.025 (0.009) [0.468]	0.013 (0.009) [0.420]	-11.273 (12.552) -[9.578]

*Notes:* This table presents two-stage least squares estimates of the effect of months of incarceration on additional outcomes. Panel A reports effects for North Carolina. Panel B reports effects for Ohio. And Panel C reports equally-weighted average effects. All coefficients are scaled to represent the effect of 12 months of incarceration. All effects estimated pooling the five to nine years post filing. Standard errors clustered by defendant are shown in parentheses. Estimated untreated mean outcomes for compliers shifted from zero to some incarceration are shown in square brackets and calculated as detailed in Section A.1.

Table D.42: OLS estimates for additional outcomes (no controls)

	(1)	(2)	(3)	(4)	(5)
	Died up to t	Died in t	Any W2 or 1040	In NC/OH	Cumu OPE earn
Effect of 12 month sentence					
A. North Carolina ( $N = 306,254$ )					
5-9 years post-filing	-0.004 (0.0002)	-0.002 (0.0003)	-0.015 (0.0007)	-0.015 (0.0007)	-0.868 (0.359)
B. Ohio ( $N = 158,665$ )					
5-9 years post-filing	-0.003 (0.0002)	-0.002 (0.0002)	-0.023 (0.0005)	-0.019 (0.0005)	-1.514 (0.440)
C. Average					
5-9 years post-filing	-0.004 (0.0001)	-0.002 (0.0002)	-0.019 (0.0004)	-0.017 (0.0004)	-1.191 (0.284)

*Notes:* This table presents ordinary least squares estimates of the effect of months of incarceration on additional outcomes. Panel A reports effects for North Carolina. Panel B reports effects for Ohio. And Panel C reports equally-weighted average effects. All coefficients are scaled to represent the effect of 12 months of incarceration. All effects estimated pooling the five to nine years post filing. Standard errors clustered by defendant are shown in parentheses.

Table D.43: Long-run effects for Pager (2003); Agan and Starr (2017)-style samples (no controls)

	(1)	(2)	(3)	(4)
	Days / year	Any W2	W2 earnings	asinh(earnings)
Effect of 12 month sentence				
A. Overall				
5-9 years post-filing	9.230 (2.107) [46.979]	0.025 (0.009) [0.351]	467.829 (252.230) [4351.469]	0.265 (0.090) [3.222]
B. Pager (2003) sample				
5-9 years post-filing	-2.689 (11.207) [38.521]	0.097 (0.050) [0.285]	2095.041 (1521.813) [2827.116]	0.981 (0.513) [2.583]
B. Agan & Starr (2017) sample				
5-9 years post-filing	7.189 (11.452) [57.639]	0.033 (0.040) [0.355]	-946.713 (1110.233) [5428.380]	0.289 (0.400) [3.351]

*Notes:* This table examines the two-stage least squares estimates of the effect of months of incarceration on key incarceration and labor market outcomes in a sample restricted to be similar to those in Pager (2003) and Agan and Starr (2017). Panel A reports effects for the full sample. Panel B reports effects for the sample restricted to be similar to Pager (2003). Panel C reports effects for the sample restricted to be similar to Agan and Starr (2017). All coefficients are scaled to represent the effect of 12 months of incarceration and are estimated pooling the periods five to nine years post filing date. Standard errors clustered by defendant are shown in parentheses and all columns include the full set of controls. Column 1 reports effects on days incarcerated in the calendar year. Column 2 reports effects on an indicator for any W2 earnings. Column 3 reports effects on total W2 earnings, including zeros. Column 4 reports results for the inverse hyperbolic sine of total W2 earnings.

Table D.44: Cumulative effects for Pager (2003); Agan and Starr (2017)-style samples (no controls)

	(1)	(2)	(3)
	Days / year	Any W2	W2 earnings
Effect of 12 month sentence			
A. Overall			
5-9 years post-filing	271.595 (8.849) [252.685]	-0.097 (0.045) [2.192]	-1674.552 (1179.979) [21916.270]
B. Pager (2003) sample			
5-9 years post-filing	345.566 (41.772) [226.711]	-0.108 (0.237) [2.539]	-1261.533 (6010.192) [24303.254]
B. Agan & Starr (2017) sample			
5-9 years post-filing	315.143 (42.770) [260.118]	-0.214 (0.185) [2.443]	-5448.356 (4011.960) [21642.170]

*Notes:* This table examines the two-stage least squares estimates of the effect of months of incarceration on cumulative incarceration and labor market outcomes in a sample restricted to be similar to those in Pager (2003) and Agan and Starr (2017). Panel A reports effects for the full sample. Panel B reports effects for the sample restricted to be similar to Pager (2003). Panel C reports effects for the sample restricted to be similar to Agan and Starr (2017). All coefficients are scaled to represent the effect of 12 months of incarceration and are estimated pooling the periods five to nine years post filing date. Standard errors clustered by defendant are shown in parentheses and all columns include the full set of controls. Column 1 reports effects on cumulative days incarcerated by the end of the calendar year. Column 2 reports effects on an indicator for cumulative W2 earnings since time period 0. Column 3 reports effects on cumulative W2 earnings since time period 0, including zeros. Column 4 reports results for the inverse hyperbolic sine of cumulative W2 earnings since period 0.