Locked Out of the Labor Market? State-Level Hidden Sentences and the Labor Market Outcomes of Recently Incarcerated Young Adults

Cody Warner, Joshua Kaiser, Jason N. Houle

➡ For additional information about this article

https://muse.jhu.edu/article/754897

Locked Out of the Labor Market? State-Level Hidden Sentences and the Labor Market Outcomes of Recently Incarcerated Young Adults

CODY WARNER, JOSHUA KAISER, AND JASON N. HOULE

A long literature attests to labor market penalties for having a criminal record. No research, however, has explored whether state-level policies that restrict social participation of the justice-involved contribute to these labor market consequences. Such policies, or hidden sentences, have clear implications for labor market outcomes but are difficult to measure. In this article, we leverage a combination of nationally representative individual data and state-level data on hidden sentences to ask whether the labor market penalties of incarceration are contingent on a state's hidden sentence regime in young adulthood. Our results demonstrate that living in a state with moderate and high hidden sentences exacerbates the labor market consequences of incarceration, and that this pattern may contribute to racial disparities in labor market outcomes following incarceration.

Keywords: incarceration, employment, earnings, hidden sentences

An extensive body of research focuses on whether contact with the penal system, and incarceration in particular, is a barrier to the labor market. Results of this work have shown that incarceration restricts employment (Pager 2003, 2007), reduces earnings (Lyons and Pettit 2011; Western 2002), and increases the risk of dropping out of the labor force (Apel and Sweeten 2010; Western and Pettit 2005). Given the concentration of incarceration among young men of color, research is increasingly considering heterogeneity in the labor market consequences of incarceration by race and eth-

nicity (Apel and Powell 2019; Lyons and Pettit 2011; Pager 2007; Western and Sirois 2018). Less research, however, has considered the relevance of state-level laws and social policies that may amplify or dampen the labor market consequences of criminal justice contact.

Our study advances this literature in two ways. First, we ask whether an often-discussed but rarely measured feature of state punishment regimes contributes to disparities in labor market outcomes by criminal justice contact among young adults. In particular, scholars frequently argue that federal and state policies

Cody Warner is associate professor in the Department of Sociology and Anthropology at Montana State University. **Joshua Kaiser** is resident scholar in sociology at Dartmouth College. **Jason N. Houle** is associate professor in sociology at Dartmouth College.

restricting occupational licensing and employment options for the justice-involved are mechanisms linking incarceration to labor market disparities (see, for example, Western 2002, 528). These penalties (what we call hidden sentences) apply largely outside of or in addition to the judge-issued, criminal law sanctions (such as probation or imprisonment) tied to criminal convictions (Kaiser 2016). Some of the more well-known hidden sentences are those that restrict voting rights, restrict access to public or subsidized housing, restrict access to welfare benefits, or create legal financial obligations through fines and fees (ABA 2013; Geller and Curtis 2011; Harris 2016; Uggen and Manza 2002). These policies and restrictions have the potential to restrict labor market participation, but the relationship between hidden sentences and the labor market outcomes of the justice-involved has not been examined.

Second, we focus specifically on the relevance of incarceration and hidden sentences during the young adult years (twenty-five to thirty), for a cohort who came of age during the era of mass incarceration. This is an important time frame for both labor market outcomes and risk of criminal justice contact and incarceration. In young adulthood, early career experiences lay the foundation for future employment and earnings trajectories, and set the stage for advantage or disadvantage to accumulate across the life course (Blau and Duncan 1967; Cheng 2014; DiPrete and Eirich 2006). Young people transitioning to adulthood are also prime targets for incarceration and other forms of criminal justice contact, especially young men of color; and this contact has the potential to create lasting consequences for a range of outcomes, including labor market participation (Steinberg, Chung, and Little 2004; Wakefield and Apel 2016).

Thus, we ask whether hidden sentences are linked with labor market outcomes (employment and earnings), whether hidden sentences exacerbate the consequences of incarceration during young adulthood, and whether the association between hidden sentences and labor market outcomes varies by race-ethnicity. Our core results are based on a combination of individual data from the 1997 cohort of the National Longitudinal Survey of Youth (NLSY97) and state-level data on hidden sentences derived from the National Inventory of Collateral Consequences of Conviction (NICCC). Taken together, our findings advance existing research by bridging the literatures on the effects of incarceration on inequality (Wakefield and Uggen 2010) and on state policies that create and sustain collateral consequences (Harris 2016; Kaiser 2016; Uggen and Manza 2002).

INCARCERATION, RACE, AND LABOR MARKET OUTCOMES IN YOUNG ADULTHOOD

The labor market consequences of criminal justice contact have received a great deal of scrutiny. The bulk of this evidence shows that individuals struggle in the labor market following incarceration.[1] For example, audit studies show that callback rates for individuals with a criminal record are substantially lower than for individuals with no record (Pager 2003). Studies based on survey data have found an incarceration penalty on employment ranging from 10 to 30 percent, and a wage penalty of 10 to 40 percent (Apel and Sweeten 2010; Western 2002, 2006; Raphael 2007). Evidence also indicates that the labor market consequences of incarceration are not uniform, with several studies exploring heterogeneity by race-ethnicity. Devah Pager (2007) argues that a criminal record reinforces racial stereotypes, especially among black males, and intensifies the stigma of incarceration. For example, relative to formerly incarcerated whites, blacks have lower rates of labor market participation after prison and experience slower post-prison wage growth that extends well beyond the period of incarceration (Apel and Powell 2019; Lyons and Pettit 2011; Western and Sirois 2018).

Incarceration is conceptualized as a turning point in the life course that disrupts adult development, the effects of which reverberate and accumulate as people age (Pettit and Western

1. Studies based on matching administrative data on incarceration with data from unemployment insurance systems do not always find negative effects of incarceration, and some have found short-term positive effects (Travis and Western 2014).

2004; Sampson and Laub 1992; Western 2002). After decades of growth, incarceration has become an increasingly common feature of the transition to adulthood among disadvantaged segments of the population (Pettit and Western 2004). It is important to examine the labor market consequences of criminal justice contact during the transition to adulthood because it is a period when risk of incarceration peaks and labor market inequalities start to emerge (Cheng 2014; Pettit and Western 2004). Incarceration during this critical stage can therefore contribute to a pattern of cumulative disadvantage in the worlds of education, work, and interpersonal relationships (Steinberg, Chung, and Little 2004; Western 2002).

Three primary mechanisms have been proposed to account for the labor market consequences of incarceration: selection, incapacitation, and stigma. According to the selection explanation, incarceration has no independent effect on labor market outcomes, but rather the criminal justice system disproportionately "selects" individuals who are not willing or able to hold down work (Pager 2007). Evidence is clear that formerly incarcerated individuals—even in the absence of incarceration—would struggle to be competitive in the labor market (Western 2006). But it is also the case that exposure to incarceration (that is, incapacitation) can fundamentally alter an individual's employability through gaps in work history, loss of job skills, and the loss of the informal social networks often pivotal for landing employment. Finally, a criminal record works as a negative credential that prohibits labor market participation through social stigma and formal exclusion. Pager (2003) refers to a criminal record as a "status mark of dishonor," impacting how employers view the reputation, reliability, and trustworthiness of those with a criminal record, black males in particular. In support of this, large shares of employers, when prompted, report that they would not knowingly hire someone with a criminal record (Holzer 1996). Thus, even though the criminal justice system disproportionally selects those who may struggle in the labor market, the evidence is clear that going to prison contributes to larger patterns of labor market disadvantage.

A criminal record is disqualifying not only because of incapacitation or informal exclusion through social stigma, but also for the formal, state-imposed sanctions that create barriers to full societal participation. This kind of exclusion, outlined in the following section, is often discussed but rarely directly measured, either as direct exclusion in the labor market or as a broader collection of policies that alter and limit participation in other social and economic spheres (Miller and Stuart 2017; Petersilia 2003; Travis 2002).

HIDDEN SENTENCES AS LABOR MARKET BARRIERS

As of 2015, more than thirty-five thousand laws across the United States impose more than forty thousand penalties on the justice-involved beyond visible forms of punishment like imprisonment and probation (Kaiser 2016). These policies restrict those with a criminal record from working certain types of jobs entirely or obtaining necessary certifications, from holding a driver's license or voting, from receiving financial aid or government benefits, and from numerous other social and economic activities (Petersilia 2003; Travis 2002). Researchers refer to such policies using varying definitions and terms, including collateral consequences, collateral sanctions, civil disabilities, and invisible punishments (Chin 2011; Travis 2002; Uggen and Stewart 2014; Whittle 2018). Following Joshua Kaiser (2016), we adopt the terminology of *hidden sentences* to emphasize first, that these policies are state-imposed punishments based on a variety of criminal labels, such as conviction, indictment, or an arrest record (Chin 2011; Whittle 2018), and, second, that they are distinct from visible sentences largely because legal processes keep them obscured to different degrees throughout public and private spheres (Kaiser 2016; Travis 2002). Hidden sentences have the potential to affect individual labor market outcomes in three ways: direct restrictions on employment-related rights and privileges; indirect restrictions on employment through limits on other kinds of citizenship rights and social participation; and informal filters on the labor market due to overwhelming experiences of administrative burden, uncertainty, and stigmatization.

First, hidden sentences can limit access ei-

ther to certain kinds of employment directly or to the occupational and business licenses necessary to them (Pager 2007; Petersilia 2003; Travis 2002). For example, felony convictions automatically exclude individuals from licenses in various medical occupations, barbering and beautician services, independent contracting, and other fields, and several kinds of convictions can create bans from public office, law enforcement, and segments of the civil service. In addition, many employers and certifiers, such as state bars or accounting boards, are empowered to exclude based on indictments, arrests, or other kinds of criminal justice contact. Second, hidden sentences that limit other citizenship rights and restrict societal participation can create barriers in the labor market. For instance, hidden sentences that curtail driver's licenses can both prohibit the justice-involved from delivery services, commercial trucking, and other employment that requires driving, and restrict where and when individuals can work. Indeed, Michele Cadigan and Gabriela Kirk (2020) document how driver's license suspensions, as a postconviction mechanism used to collect legal fines and fees, can affect labor market participation because of subsequent difficulties traveling to court hearings or places of employment. Hidden sentences that impose residence restrictions or prohibit even the ability to be present in certain locations (such as schools or day cares) also limit employment options (Beckett and Herbert 2010). Restrictions on firearms can prevent even nonviolent offenders from serving in private investigations and security, and disfranchisement can make the justice-involved unqualified to serve in some public employment even when other hidden sentences do not (Stavsky 2002; Uggen and Manza 2002).

Hidden sentences also enable employers and occupational gatekeepers (along with landlords, lenders, and other private parties) to run background checks and empower them to use arrest and conviction histories as factors in hiring, firing, and other employment decisions—thereby enabling the social stigma that puts the justice-involved at a disadvantage in the labor market (Pager 2003, 2007; Uggen et al. 2014). These more comprehensive employment barriers are often based on the broadest criminal labels. Such background checks and general criminal offense registries frequently include misdemeanors, drug and public order offenses, and arrests or indictments that never lead to convictions.

Third, state hidden sentences can affect how individuals approach and experience the labor market through administrative burden. As a policy regime increases in sheer size and complexity, so do the learning costs, compliance costs, and psychological costs of participating in the relevant programs or activities (Herd and Moynihan 2019). The result is a system of barriers that often cause avoidance, noncompliance, or participation in ways that are not predicted by a straightforward reading of the policies themselves. Research on the welfare state and economic regulation shows that the administrative burden of a particular policy regime can have negative impacts on participation in educational applications and financial aid (Hoxby and Turner 2015), immigration and nationalization (Heinrich 2018), voting and voter registration (Burden et al. 2014), medical insurance (Moynihan, Herd, and Ribgy 2016), and other social and economic activities.

Hidden sentence regimes can create similar experiences of administrative burden and therefore alter labor market participation in ways beyond formal restrictions themselves. Unlike the civil death laws of the past that excluded felons from society with a single law, hidden sentence regimes impact employment and citizenship status through a myriad of restrictions that vary by state and offense type, that apply under different circumstances and for different lengths of time, that encompass activities that are very narrow (for example, wool dealing or particular educational loans) or extremely broad (for example, all public employment in a state), and that depend on various employers' and other decision-makers' discretion (Ewald 2012; Kaiser 2016). As a result, these restrictions may "pile on" to create a hopelessly tangled policy of restrictions that take their toll one after another and can carry extreme compliance costs and offer very little benefit (Uggen and Stewart 2014). As a result, we expect the size and complexity of a state's hidden sentence regime alone to amplify its impact on labor market outcomes.

Hidden sentences as a form of state surveillance may also create stigma and result in avoidance of formal institutions. Research shows that surveillance and coercion policies are so pervasive that individuals often avoid public institutions altogether, often in fear that interacting with institutions such as hospitals or banks can increase surveillance and lead to apprehension by authorities (Brayne 2014; Remster and Kramer 2018). Indeed, surveillance policies themselves are frequently associated with increasing levels of administrative burden (Waldo, Lin, and Millett 2007).

Finally, hidden sentence policies have the potential to play a role in larger patterns of racial inequality. Government policies can either narrow or widen gaps in broad outcomes, including the labor market. Affirmative action programs, for example, contributed to a narrowing of wage inequality between whites and blacks (see Lyons and Pettit 2011, 258). On the other hand, the expansion of the criminal justice system is often conceptualized as a broader policy approach that has widened racial inequality. Given how common criminal justice contact is in the lives of minority citizens, and thus the accompanying hidden sentences, it is thus plausible that any exclusion created by hidden sentences could contribute to racial inequalities.

In sum, in this article we contribute to the large and growing literature on the labor market consequences of incarceration during young adulthood and consider whether and how state-level hidden sentence regimes are implicated in this relationship. Specifically, we ask how and to what extent state-level hidden sentences are responsible for producing inequalities in labor market outcomes between those with and without a history of incarceration. We ask three key research questions. First, are state-level hidden sentences associated with labor market outcomes among justice-involved young adults, net of other individual and state-level characteristics? Second, are disparities in labor market outcomes by incarceration status larger in states with more punitive hidden sentences? And, third, is there evidence that state-level hidden sentences are more con-

sequential for justice-involved young adults of color than white young adults?

DATA AND APPROACH

To answer these questions, we draw data from several sources. Individual-level data are drawn from the 1997 cohort of the National Longitudinal Survey of Youth (NLSY97), a nationally representative longitudinal dataset that has regularly surveyed a cohort of American young adults born between 1980 and 1984. Respondents have been interviewed a maximum of seventeen times since the first interview in 1997, and were age thirty to thirty-six at the most recent round of data collection. The data have been used to examine the impact of incarceration and other forms of criminal justice contact on a variety of outcomes, including earnings and labor market participation (Apel and Powell 2019; Apel and Sweeten 2010). To capture state-level hidden sentences, we use data from the National Inventory of the Collateral Consequence of Conviction (NICCC), a collaborative effort of the American Bar Association and the National Institute of Justice that identifies all postconviction hidden sentences in all U.S. jurisdictions. The database covers a range of hidden sentences, including those related to employment, occupational licensing, housing, voting, and education (for more information on the NICCC, see Kaiser 2016, 129).[2] Finally, we capture other potentially relevant state-level characteristics (see below) by drawing on data from the U.S. Census, American Community Survey, Bureau of Justice Statistics, and the University of Kentucky Center for Poverty Research. These state-level data are linked to a restricted version of the NLSY97 that includes state of residence identifiers for respondents.

For all individual-level dependent and independent variables, we standardize the data by age to focus on a specific period of young adulthood, from age twenty-five to age thirty. We focus on this range for two reasons: first, because most young adults in this age range have completed their education, begun their transition to adulthood, entered the workforce, and attempted to begin their adult careers (Danziger and Ratner 2010); and, second, to be consistent

---

2. See also the NICCC website, https://niccc.csgjusticecenter.org (accessed September 27, 2019).

with research on labor market outcomes in the transition to adulthood, which also focuses on young adults within this age range (Danziger and Ratner 2010; Silva 2012; Sironi 2018; Swartz, McLaughlin, and Mortimer 2017). By 2015, the last round of data collection, all NLSY97 respondents are at least thirty years old; research has established that the period of young adulthood is pivotal is establishing earnings trajectories and inequalities (Rindfuss 1991). Employment information is available for 7,599 respondents at or around the age thirty interview, and earnings are available for 7,505 respondents. We use listwise deletion on dependent and independent variables to omit a total of 1,818 respondents from the analyses, leaving us with a sample of 7,166.

Labor Market Outcomes
Our focal dependent variables are labor market indicators of any employment, full-time employment, and earnings at age thirty. Given that much employment after prison is fleeting and informal (Western and Sirois 2018), our first dependent variable is a dichotomous variable coded 1 if respondents reported, at the age thirty interview, that they were employed in any month since the previous interview. Full-time employment is a dichotomous variable coded 1 if respondents reported working an average of thirty-five hours or more per week for at least half of the preceding year at the age thirty interview. Respondents reported wages from salary, commissions, and tips at the age thirty interview. We adjust wages for inflation and report in constant 2010 dollars and log transform wages to reduce heteroskedasticity.

Criminal Justice Contact
At each wave of data collection, NLSY97 respondents provide detailed information on criminal justice contact and subsequent processing since the previous interview. Respondents are first asked whether they have been arrested since the last interview, and, if applicable, follow-up questions about charges, convictions, and periods of incarceration. Additional spells of incarceration are captured via a residence item, taken at each interview, indicating that a respondent's current dwelling is jail, prison, or a work release facility. Our focal independent

variable is the experience of incarceration during young adulthood in the period leading up to the measurement of our labor market indicators at age thirty. This dichotomous measure is coded 1 if a respondent reported a spell of incarceration between ages twenty-five and thirty and zero otherwise. Further, in supplementary models, we examine variation across indicators of criminal justice contact with a mutually exclusive categorical measure of no criminal justice contact (referent), arrested only, arrested and convicted with no incarceration, and incarcerated.

Hidden Sentences
The NICCC is an impressive documentation of the laws and policies that create the systems of hidden sentences operating across U.S. jurisdictions. For each state, plus the federal government, the NICCC provides a thorough list of all current hidden sentences that could apply to someone with a criminal record. To capture the administrative burden of hidden sentences, we focus on the total number of hidden sentences identified for each state in the NICCC. However, not all hidden sentences are automatically enforced, making it impossible to tell exactly which hidden sentences apply to a given person at a given time. To help deal with this uncertainty, we restrict our total measure to capture only those hidden sentences that are automatically put in place on arrest, conviction, or other criminalizing statuses (that is, that require no discretionary action to activate). Furthermore, we take advantage of state-to-state variation in hidden sentences to create a three-category measure of mandatory hidden sentences based on the overall percentile distribution: low-hidden sentences (less than 25th percentile; referent), mid-hidden sentences (25th to 75th percentile), and high-hidden sentences (greater than 75th percentile).

To combine the individual-level data with the hidden sentences data, we use state identifiers available at each wave of the NLSY97 data collection. For respondents who report an arrest, conviction, or incarceration, we match hidden sentences based on the state of residence at the time of the arrest. For those respondents who are not arrested between the ages of twenty-five and thirty, we take the hid-

den sentences category in the state of residence at age thirty.

Control Variables

The criminal justice system disproportionately selects from disadvantaged segments of the population (Western 2006). We follow research by accounting for a range of individual and state-level characteristics that may confound our association of interest (Apel and Powell 2019; Apel and Sweeten 2010; Western 2002). At the individual level, we leverage the NLSY97 data to control for gender (female = referent), race (white [referent], black, Hispanic, other), as well as a series of young adult life-course characteristics taken at age twenty-five (prior to the measure of incarceration and the dependent variables). This includes corresponding employment and earnings variables, as described, as well as a lagged measure of criminal justice contact (coded 1 if a respondent was ever arrested leading up to the age twenty-five interview). We control for educational attainment with a categorical variable capturing highest degree earned at age twenty-five: less than high school degree (referent), high school degree, two-year college with no degree, two-year college with degree, four-year college with no degree, and four-year college with degree. We also account for young adult relationship status: unmarried (referent), cohabiting, married, and divorced-separated. Parenthood is a dichotomous variable coded 1 if the household roster includes a resident child, and zero otherwise. Similarly, homeownership is a dichotomous indicator coded 1 if the respondent reports owning or making payments on a home. Finally, we account for parent-child coresidence with a dichotomous variable coded 1 if one or more parents is listed on the household roster.

Furthermore, and because hidden sentences have been cast as the result of social exclusionary policies and a shrinking social safety net (Plassmeyer and Sliva 2018), we also account for relevant state-level characteristics that may confound our association of interest. These measures are based on annual state-level data, averaged from 2005 through 2014.

State sociodemographic characteristics are from the U.S. Census Bureau decennial census and American Community Survey, and include the percentage of the state that is non-Hispanic black, the percentage of residents with a four-year degree or higher, and the unemployment rate. Drawing from data compiled by the University of Kentucky Center for Poverty Research, we also control for the gross state product (in millions of dollars) and the maximum Temporary Assistance for Needy Families and Supplemental Nutrition Assistance Program benefits for a family of four between 2004 and 2015. Finally, using data from the Bureau of Justice Statistics, we control for the incarceration rate. These measures are based on the state of residence at the time of the age thirty interview.

Analytic Strategy

We predict any employment and full-time employment among those employed using linear probability models and logged wages using linear regression. Given our interest in state-level hidden sentences, we cluster all standard errors by state of residence. For any employment and wages, we start with an estimate of the incarceration penalty net of individual control variables, including the lagged dependent variable. We add hidden sentences in model 2 to examine whether hidden sentences are a mechanism linking incarceration to labor market struggles. In model 3, we account for additional state-level characteristics that could drive any relationship between hidden sentences and labor market outcomes. To determine whether hidden sentences exacerbate the consequences of incarceration for employment or earnings, we model an interaction between incarceration and hidden sentences in the full model 4. In the final models, we predict full-time employment among those who report some employment (n = 6,022), and wages among those who report nonzero wages (n = 5,812). We also present results stratified by race. To conserve space, and to maintain the focus on the key variables of interest, we omit the coefficients and standard errors for all control variables.[3]

---

3. For full tables of all dependent variables, see the online appendix (https://www.rsfjournal.org/content/6/1/132/tab-supplemental).

Figure 1. Mandatory Hidden Sentences in the United States

Hidden sentences
■ High (489–920)
■ Medium (330–488)
□ Low (175–329)
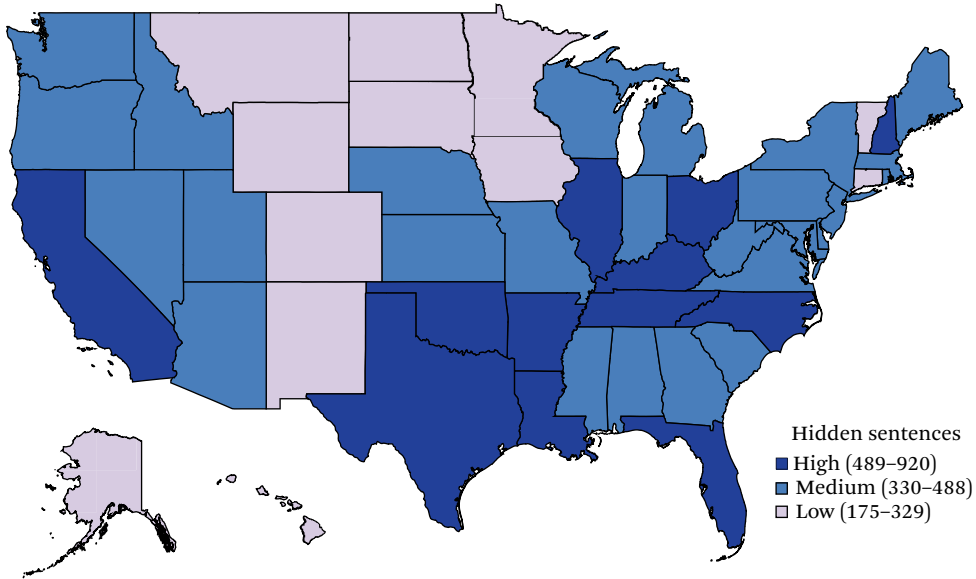
Source: Authors' compilation of NICCC (American Bar Association 2013).

RESULTS

We start by noting that that hidden sentences are ubiquitous across U.S. states, averaging more than eight hundred hidden sentences that may apply following a criminal conviction or other criminal status (mean = 868.27, SD = 312.73). In addition, states have an average of more than four hundred hidden sentences that are categorized as mandatory (mean = 441.29, SD = 173.94). We show state variation in hidden sentences, based on the levels of mandatory hidden sentences described, in figure 1. This map indicates that states with high levels of mandatory hidden sentences tend to be concentrated in the southern United States, although both high- and low-level states are observed in nearly every region.

Table 1 shows descriptive statistics for the full sample and by incarceration status. Between the ages of twenty-five and thirty, 5.6 percent (n = 405) of the NLSY97 respondents experienced a spell of incarceration and these individuals were disadvantaged in the labor market. Relative to their never-incarcerated counterparts, recently incarcerated individuals are less likely to report that they worked (either at all or full-time) leading up to the age thirty

interview, and reported approximately $20,000 lower annual earnings.

Table 1 also shows that that most NLSY97 respondents live in states classified as either mid- or high-hidden sentences (low = 9.2 percent, mid = 45.3 percent, high = 45.5 percent). There are no differences in exposure to hidden sentences based on a history of recent incarceration. That is, the table shows that the levels of hidden sentences in the states where respondents with or without a recent incarceration live are not significantly different.

Hidden sentences do not appear to play an independent role in young adult employment outcomes, given that the results in table 2 show that a recent incarceration decreases the probability of employment at age thirty, and this relationship is not explained by exposure to hidden sentences.

After accounting for a host of individual-level potential sources of spuriousness and pre-incarceration employment, and consistent with existing work (see Apel and Ramakers 2019), we find in model 1 of table 2 that young adults with a recent incarceration are 16.6 percentage points less likely to report having been employed in any month in the prior year. This

Table 1. Descriptive Statistics for All Variables

	Full Sample	Incarcerated Ages Twenty-Five to Thirty		t-Test
		No	Yes	
Incarceration (1=yes)	0.056	—	—	
Any employment (1=yes)	0.841	0.857	0.590	***
Full-time employment (1=yes)	0.601	0.619	0.301	***
Wages[a]	28,104.1	29,221.2	9,456.2	***
	(28,025.3)	(28,187.2)	(16,296.8)	
Hidden sentences (HS)				
Low HS state (referent)	0.092	0.093	0.077	
Mid HS state	0.453	0.451	0.489	
High HS state	0.455	0.456	0.435	
Control variables (at age twenty-five)				
Gender (male=1)	0.501	0.482	0.815	***
Race				
White (referent)	0.506	0.514	0.363	***
Black	0.274	0.266	0.412	***
Hispanic	0.213	0.212	0.217	
Other race	0.007	0.007	0.007	
Education				
Less than high school degree (referent)	0.122	0.108	0.343	***
High school degree	0.280	0.272	0.412	***
Two-year college (no degree)	0.172	0.176	0.106	***
Two-year college (degree)	0.059	0.062	0.022	**
Four-year college (no degree)	0.152	0.155	0.109	*
Four-year college (degree)	0.214	0.226	0.007	***
Relationship status				
Unmarried (referent)	0.524	0.519	0.612	***
Cohabitating	0.179	0.179	0.168	
Married	0.250	0.257	0.136	***
Divorced-separated	0.047	0.045	0.084	***
Parent (1=yes)	0.434	0.422	0.630	***
Homeownership (1=yes)	0.164	0.169	0.079	***
Coresidence with parents (1=yes)	0.288	0.285	0.331	*
Arrested before age twenty-five (1=yes)	0.326	0.294	0.859	***
Full-time employment (age twenty-five)	0.572	0.584	0.369	***
Wages[a] (age twenty-five; thousands of dollars)	21.01	21.61	10.95	***
	(18.82)	(18.66)	(18.66)	
State % non-Hispanic black	12.70	12.63	13.85	**
	(8.196)	(8.154)	(8.801)	
State % with four-year degree	27.79	27.83	27.17	**
	(4.446)	(4.449)	(4.350)	
State unemployment rate	6.824	6.829	6.740	
	(1.061)	(1.063)	(1.026)	
State maximum allowable welfare	1079.4	1081.8	1038.3	***
	(188.9)	(189.3)	(176.3)	
Gross state product in millions	669,803.1	673,608.3	606,279.5	*
	(608,615.4)	(611,915.6)	(547,395.2)	
State incarceration rate	462.0	460.1	492.6	***
	(135.7)	(135.6)	(133.7)	
Observations	7.166	6.761	405	

Source: Authors' compilation based on NLSY97 (U.S. Bureau of Labor Statistics 2015), NICCC (American Bar Association 2013), U.S. Census (2000, 2010), NPS (U.S. Bureau of Justice Statistics 2017), and National Welfare Data (University of Kentucky Center for Poverty Research 2019).
Note: Standard deviations for continuous variables only (in parentheses).
[a] Wages reported in 2010 dollars.
$^{+}p < .1$; $^{*}p < .05$; $^{**}p < .01$; $^{***}p < .001$

Table 2. Linear Probability Models Predicting Young Adult Employment

	Any				Full-Time[a]
	Model 1	Model 2	Model 3	Model 4	Model 4
Young adult incarceration	−0.166***	−0.166***	−0.167***	−0.022	−0.174
	(0.026)	(0.026)	(0.026)	(0.062)	(0.106)
Low hidden sentences (HS) (referent)	—	—	—	—	—
Mid hidden sentences		−0.018	−0.006	0.001	0.045[+]
		(0.017)	(0.017)	(0.017)	(0.025)
High hidden sentences		−0.019	0.003	0.009	0.071*
		(0.016)	(0.020)	(0.021)	(0.030)
Interactions					
Incarceration x mid HS				−0.158*	−0.004
				(0.073)	(0.119)
Incarceration x high HS				−0.158*	0.077
				(0.074)	(0.113)
Constant	0.471***	0.487***	0.566***	0.568***	0.368***
	(0.021)	(0.029)	(0.068)	(0.068)	(0.102)
Control variables					
Individual	Yes	Yes	Yes	Yes	Yes
State	No	No	Yes	Yes	Yes
N	7,166	7,166	7,166	7,166	6,022
R^2	0.178	0.178	0.179	0.180	0.114

Source: Authors' compilation based on NLSY97 (U.S. Bureau of Labor Statistics 2015), NICCC (American Bar Association 2013), U.S. Census (2000, 2010), NPS (U.S. Bureau of Justice Statistics 2017), and National Welfare Data (University of Kentucky Center for Poverty Research 2019).
Note: Standard errors in parentheses (all standard errors clustered at state-level); coefficients and standard errors for individual- and state-level controls omitted.
[a] Full-time employment predicted for those who report any employment in past year.
[+]*p* < .1; *p* < .05; **p* < .01; ***p* < .001

association is robust to the addition of the hidden sentences in model 2, and hidden sentences themselves are not directly associated with employment in the full sample. The results change little with the inclusion of other state-level variables in model 3. However, the results in model 4 indicate that hidden sentences exacerbate the consequences of a recent incarceration for young-adult employment. Recently incarcerated respondents living in states with low-levels of hidden sentences are not significantly less likely than their non-incarcerated peers to have worked at some point in the year leading up to their age thirty interview. Instead, the decreased probability of employment in young adulthood is con-

centrated among respondents living in states with middle and high levels of hidden sentences.

If hidden sentences work in combination with a recent incarceration to restrict any involvement in the labor market, they appear to be less consequential for full-time employment. The final model of table 2 (labeled also as model 4 to reflect that the only change is the outcome measure) shows that, among those who reported any employment in the year leading up to the age thirty interview, the association between incarceration and full-time employment is not significantly moderated by state-level hidden sentences.

In table 3, we predict any (panel A) and full-

Table 3. Linear Probability Models Predicting Young Adult Employment

	Whites[a]		Blacks[a]		Hispanics[a]	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Panel A. Any employment						
Young adult incarceration	−0.099*	−0.023	−0.196***	0.220	−0.201***	−0.112
	(0.035)	(0.098)	(0.048)	(0.141)	(0.048)	(0.082)
Low hidden sentences (HS) (referent)	—	—	—	—	—	—
Mid hidden sentences	0.021	0.024	−0.098[+]	−0.077	0.005	0.013
	(0.017)	(0.018)	(0.055)	(0.058)	(0.032)	(0.034)
High hidden sentences	0.023	0.027	−0.094[+]	−0.076	0.057	0.063
	(0.026)	(0.026)	(0.055)	(0.059)	(0.050)	(0.051)
Interactions						
Incarceration x mid HS		−0.072		−0.432**		−0.096
		(0.110)		(0.143)		(0.148)
Incarceration x high HS		−0.103		−0.407**		−0.105
		(0.109)		(0.166)		(0.100)
Constant	0.468***	0.469***	0.878***	0.848***	0.548**	0.562**
	(0.077)	(0.076)	(0.212)	(0.220)	(0.151)	(0.152)
Panel B. Full-time employment						
Young adult incarceration	−0.126*	−0.084	−0.170**	0.093	−0.109[+]	−0.357**
	(0.047)	(0.138)	(0.050)	(0.259)	(0.056)	(0.106)
Low hidden sentences (referent)	—	—	—	—	—	—
Mid hidden sentences	0.071*	0.073*	0.016	0.031	−0.089	−0.102
	(0.025)	(0.025)	(0.054)	(0.049)	(0.056)	(0.056)
High hidden sentences	0.103**	0.103**	0.069	0.083	−0.135	−0.152[+]
	(0.031)	(0.031)	(0.063)	(0.058)	(0.070)	(0.072)
Interactions						
Incarceration x mid HS		−0.072		−0.267		0.162
		(0.150)		(0.268)		(0.151)
Incarceration x high HS		−0.016		−0.274		0.347*
		(0.157)		(0.265)		(0.119)
Constant	0.418**	0.418**	0.534*	0.509*	0.581[+]	0.557[+]
	(0.125)	(0.125)	(0.207)	(0.192)	(0.311)	(0.331)
Controls						
Individual	Yes	Yes	Yes	Yes	Yes	Yes
State	Yes	Yes	Yes	Yes	Yes	Yes

Source: Authors' compilation based on NLSY97 (U.S. Bureau of Labor Statistics 2015), NICCC (American Bar Association 2013), U.S. Census (2000, 2010), NPS (U.S. Bureau of Justice Statistics 2017), and National Welfare Data (University of Kentucky Center for Poverty Research 2019).

Note: Standard errors in parentheses (all standard errors clustered at state-level); Coefficients and standard errors for individual- and state-level controls omitted.

[a] Sample sizes: whites (panel A 3,625, panel B 3,151), blacks (panel A 1,967, panel B 1,549), Hispanics (panel A 1,523, panel B 1,278).

[+]$p < .1$; *$p < .05$; **$p < .01$; ***$p < .001$

time employment (panel B) separately for white, black, and Hispanic young adults, and find evidence that hidden sentences are more strongly associated with adverse labor market outcomes for blacks than whites.

Looking first at model 1, which accounts for all covariates, incarceration is negatively associated with employment for all groups, but the association is stronger for blacks and Hispanics than it is for whites. When we include the interaction between hidden sentences and incarceration in model 2, we find that the employment penalty associated with incarceration is strongest in states that have more hidden sentences among blacks, but not among whites and Hispanics.[4] This is consistent with the notion that hidden sentences may have more deleterious consequences for formerly incarcerated black young adults than for white young adults.

We find less evidence that hidden sentences moderate the association between incarceration and full-time employment by race (panel B), similar to our results for the full sample. In panel B, recently incarcerated blacks residing in states with middle and high levels of hidden sentences are still less likely than their nonincarcerated peers to be employed full time, but these coefficients do not reach conventional levels of statistical significance.

We estimate the association between incarceration, hidden sentences, and logged earnings in table 4. Across all models, we find evidence that the negative association between incarceration and earnings is stronger in states that have more hidden sentences. After adjusting for state- and individual-level controls in model 3, we replicate research and find that young adults with a recent incarceration report significantly lower earnings than their counterparts. In model 4, we find that this association is stronger in states with moderate and high levels of hidden sentences. In states with low hidden sentences, formerly incarcerated young adults report 38 percent lower wages than those who were not incarcerated, but this difference is not statistically significant. Both interaction terms, however, are negative and significant. This suggests that the incarceration wage disparity is substantially larger and statistically significant in states with more hidden sentences. And that, in our sample, the incarceration wage penalty is primarily driven by those who live in states with a more robust hidden sentence policy regime.

However, one question is whether this association is driven by non-earners, or whether we also observe disparities among wage earners. When we restrict our analyses to earners only (final column of table 4), we find less evidence that state hidden sentences moderate the association between incarceration and wages. When we restrict the dependent variable to those respondents who report some wages, the coefficients for the interaction terms—though consistent in direction with those in model 4—mostly fail to reach conventional levels of statistical significance. This implies that to the extent that state hidden sentence policies exacerbate disparities in wages by incarceration status, they do so by preventing access to employment, not by creating disparities among wage earners.

Finally, in table 5 we ask whether incarceration wage disparities across states vary by race-ethnicity. We find some evidence that incarceration wage disparities are largest in states with moderate and high levels of hidden sentences, and that these disparities are larger for blacks than they are for whites and Hispanics.

The results in panel A show that recently incarcerated whites and blacks who live in states with higher levels of hidden sentences earn significantly less than their nonincarcerated counterparts. Although the interaction terms are larger for formerly incarcerated black young adults, the difference between the interaction terms for whites and blacks is not statistically

---

4. The difference between the interaction coefficients for whites and blacks is statistically significant in states with moderate levels of hidden sentences ($z = 2.00$) and nears statistical significance in states with high levels ($z = 1.53$) (using Paternoster et al. 1998). Furthermore, we note that it is only among blacks that an interaction between incarceration and a *continuous* measure of hidden sentences is significant. Thus, for blacks, but not others, the probability of any employment declines as hidden sentences rise.

Table 4. Linear Regression Models Predicting Young Adult Earnings

	All Respondents				Earners Only[a]
	Model 1	Model 2	Model 3	Model 4	Model 4
Young adult incarceration	−2.454***	−2.451***	−2.462***	−0.379	−0.251
	(0.227)	(0.225)	(0.223)	(0.615)	(0.207)
Low hidden sentences (HS) (referent)	—	—	—	—	—
Mid hidden sentences		−0.369*	−0.071	0.034	0.006
		(0.145)	(0.203)	(0.200)	(0.064)
High hidden sentences		−0.341*	0.160	0.250	0.140[+]
		(0.151)	(0.231)	(0.231)	(0.070)
Interactions					
Incarceration x mid HS				−2.340**	−0.488
				(0.691)	(0.300)
Incarceration x high HS				−2.176**	−0.304
				(0.687)	(0.292)
Constant	5.470***	5.785***	5.181***	5.194***	8.691***
	(0.204)	(0.251)	(0.624)	(0.617)	(0.328)
Control variables					
Individual	Yes	Yes	Yes	Yes	Yes
State	No	No	Yes	Yes	Yes
N	7,166	7,166	7,166	7,166	5,812
R^2	0.224	0.224	0.226	0.228	0.218

Source: Authors' compilation based on NLSY97 (U.S. Bureau of Labor Statistics 2015), NICCC (American Bar Association 2013), U.S. Census (2000, 2010), NPS (U.S. Bureau of Justice Statistics 2017), and National Welfare Data (University of Kentucky Center for Poverty Research 2019).
Note: Standard errors in parentheses (all standard errors clustered at state-level); coefficients and standard errors for individual- and state-level controls omitted.
[a] This model restricts the sample to only those respondents who report nonzero earnings.
[+]$p < .1$; *$p < .05$; **$p < .01$; ***$p < .001$

significant. When the outcome is restricted to earners, in panel B, some evidence indicates that formerly incarcerated blacks and Hispanics earn less if they live in states with higher levels of hidden sentences, but the coefficients mostly fail to reach conventional levels of statistical significance.

Supplementary Models for Criminal Justice Contact
The models focus on how hidden sentences moderate the association between incarceration and labor market outcomes in young adulthood. However, recent research shows that the deleterious outcomes attributed to incarcera-

tion are also documented for individuals who experience other forms of criminal justice contact, such as arrests or convictions that do not lead to incarceration (Sugie and Turney 2017; Uggen et al. 2014). Many hidden sentences, too, apply to those who are arrested or are convicted but not incarcerated (Kaiser 2016). Thus in supplementary models we examine whether hidden sentences moderate the association between criminal justice contact, broadly defined, and labor market outcomes. To do so, we created a four-category mutually exclusive measure of criminal justice contact. We estimated models identical to those in tables 2 and 4, for employment, full-time employment, and earn-

Table 5. Linear Regression Models Predicting Young Adult Earnings by Race-Ethnicity

	Whites[a]		Blacks[a]		Hispanics[a]	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Panel A. Ln wages (all respondents)						
Young adult incarceration	−2.039***	0.073	−2.612***	1.512	−2.347***	−1.653[+]
	(0.393)	(0.809)	(0.396)	(1.191)	(0.385)	(0.851)
Low hidden sentences (HS) (referent)	—	—	—	—	—	—
Mid hidden sentences	0.092	0.169	−0.191	0.099	0.061	0.138
	(0.252)	(0.253)	(0.528)	(0.464)	(0.333)	(0.342)
High hidden sentences	0.232	0.307	−0.697	−0.300	0.483	0.525
	(0.314)	(0.318)	(0.554)	(0.495)	(0.611)	(0.616)
Interactions						
Incarceration x mid HS		−2.368*		−3.773*		−1.065
		(0.980)		(1.315)		(1.267)
Incarceration x high HS		−2.383*		−4.888**		−0.684
		(0.994)		(1.278)		(0.993)
Constant	4.447***	4.472***	5.050*	4.432*	8.741***	8.797***
	(0.821)	(0.827)	(2.079)	(2.003)	(1.927)	(1.903)
Panel B. Ln wages (earners)						
Young adult incarceration	−0.337**	−0.325	−0.678**	0.191	−0.841**	−0.096
	(0.123)	(0.305)	(0.239)	(0.637)	(0.278)	(0.356)
Low hidden sentences (referent)	—	—	—	—	—	—
Mid hidden sentences	−0.022	−0.021	−0.151	−0.091	0.044	0.125
	(0.072)	(0.075)	(0.185)	(0.179)	(0.140)	(0.137)
High hidden sentences	0.158[+]	0.158[+]	−0.136	−0.068	0.219	0.219
	(0.089)	(0.093)	(0.173)	(0.171)	(0.204)	(0.205)
Interactions						
Incarceration x mid HS		−0.030		−0.839		−1.848*
		(0.359)		(0.659)		(0.925)
Incarceration x high HS		0.006		−1.047		−0.388
		(0.347)		(0.814)		(0.408)
Constant	8.883***	8.882***	8.871***	8.768***	8.157***	8.068***
	(0.338)	(0.338)	(0.708)	(0.701)	(0.661)	(0.670)
Controls						
Individual	Yes	Yes	Yes	Yes	Yes	Yes
State	Yes	Yes	Yes	Yes	Yes	Yes

Source: Authors' compilation based on NLSY97 (U.S. Bureau of Labor Statistics 2015), NICCC (American Bar Association 2013), U.S. Census (2000, 2010), NPS (U.S. Bureau of Justice Statistics 2017), and National Welfare Data (University of Kentucky Center for Poverty Research 2019).

Note: Standard errors in parentheses (all standard errors clustered at state-level); coefficients and standard errors for individual- and state-level controls omitted.

[a] Sample sizes: whites (panel A 3,625, panel B 3,071), blacks (panel A 1,967, panel B 1,468), Hispanics (panel A 1,523, panel B 1,232).

[+]$p < .1$; *$p < .05$; **$p < .01$; ***$p < .001$

ings.[5] Broadly, we find that the association be-tween criminal justice contact—including con-viction and arrest—and labor market outcomes is stronger in states that have higher levels of hidden sentences. We also find some evidence that the labor market penalties associated with hidden sentences are stronger for blacks than whites across levels of criminal justice contact. This suggests that hidden sentences have the potential to exacerbate labor market disparities by race and criminal justice contact, even among those who are not formally incarcer-ated.

DISCUSSION

According to recent estimates, between seventy and one hundred million Americans have a criminal record (Vallas and Dietrich 2014), 7.3 million adults have been incarcerated (Shan-non et al. 2017), and more than six hundred thousand are released from prison every year (Carson 2018). Incarceration—and criminal jus-tice contact more broadly—has therefore be-come an increasingly common turning point in the life course for millions of people, espe-cially young men of color. Research shows that these young people experience long and lasting consequences in the labor market that accumu-late over time, one of the many ways that the criminal justice system creates and reinforces existing social inequality (Kirk and Wakefield 2017; Wakefield and Uggen 2010). The informal social stigma attached to a criminal label is of-ten implicated in the labor market struggles of formerly incarcerated individuals (Pager 2003). In this study, we advance research by examin-ing the role that formal stigma, operating through state-level laws and policies that limit social participation (Travis 2002), plays in the relationship between incarceration and labor market outcomes.

Our primary conclusion is that state-level hidden sentences appear to exacerbate the con-sequences of multiple kinds of criminal justice contact for labor market outcomes. Young adults with a recent incarceration, in particular, are less likely to find employment if they live in states that have higher levels of hidden sen-

tences, and the earnings penalty of incarcera-tion is larger in states with more hidden sen-tence laws and policies. In other words, the association between incarceration and labor market outcomes appears to depend in part on the state in which one lives and the overall bur-den that results from high levels of hidden sen-tences that accompany criminal justice pro-cessing. Individuals with recent incarceration spells in states with low levels of hidden sen-tences pay a smaller penalty than their peers in other states. Moreover, our supplemental anal-yses shows that the association between recent arrests or convictions and employment is larger in states with higher levels of hidden sentences. These findings align with those of Cadigan and Kirk (2020), who show how the management of monetary sanctions by courts can shape labor market experiences. Through the scheduling of compliance hearings or imposition of addi-tional sanctions (such as suspension of a driv-er's license, bench warrants, short period of incarcerations), courts create pressure points that make it difficult to find and maintain em-ployment. Combined, these studies show that consequences of incarceration and other forms of criminal justice contact emerge as a result of postconviction policies, laws, and mechanisms of compliance.

We find that the moderating role of hidden sentences is a stronger predictor of entry into employment than it is of disparities among those who are employed (including wages among earners and full-time employment among the employed). This suggests that hid-den sentences may limit initial access to the labor market, but if justice-involved individuals are able to get a job, these policies may play a smaller role in labor market inequalities. Fu-ture research should consider whether hidden sentences amplify firm-level discrimination that prevents the formerly incarcerated from gaining access to employment (Pager 2007). That is, the question remains whether hidden sentences limit access to the labor market, broadly, or only to certain sectors of the labor market that the justice-involved are likely to en-ter. Additional research should therefore exam-

---

5. For the full results of these models, see the online appendix (https://www.rsfjournal.org/content/6/1/132/tab-supplemental).

ine how hidden sentences are linked to entry into specific occupations. In particular, it would be useful to better understand how individuals interact with the labor market in the face of hidden sentences, including segments of the labor market that are entirely blocked off, and whether shifts are discernable in occupational sectors of the justice-involved before and after incarceration via hidden sentence policies.

Our findings also raise concerns that hidden sentences may exacerbate racial disparities in socioeconomic outcomes, at least among the justice-involved. We find that hidden sentences are more strongly associated with access to employment for black formerly incarcerated respondents than for whites or Hispanics. This finding is in line with, and supports, recent research that shows evidence for a "racialized reentry" (Western and Sirois 2018), where the labor market penalties of incarceration are stronger for blacks than for whites (Apel and Powell 2019; Lyons and Pettit 2011). One interpretation of these findings is that hidden sentences institutionalize discrimination and make it easier for employers to discriminate against people of color. Pager (2003) argues that a criminal record works in combination with minority status to intensify stigma for blacks relative to whites; our findings show that this may work formally through state-level policies in combination with the informal stigma accompanying a conviction. Furthermore, even in the absence of discrimination or race-specific effects, hidden sentences may exacerbate racial disparities in employment outcomes given that blacks are far more likely to be subject to the pernicious consequences of hidden sentences than whites are (see Sugie and Turney 2017).

To our knowledge, this is the first attempt at quantifying the link between hidden sentences and labor market outcomes of justice-involved young adults, and we show that hidden sentences compound a history of incarceration, especially in states where such policies are more pervasive. However, our study is not without limitations. First, we are unable to directly measure the mechanisms linking hidden sentences with labor market outcomes. Although we argue that hidden sentences may limit access to the labor market directly through occupational restrictions and licensing, indirectly through social exclusion and limiting full citizenship, and more broadly through administrative burden, we are unable to directly measure these mechanisms. We do, however, find indirect support for them. In supplementary models, our findings were strongest for mandatory (relative to discretionary) hidden sentences, suggesting that hidden sentences are more consequential when they are more likely to be enforced or implemented. Our results were also similar for both employment-related hidden sentences and hidden sentences that are not directly related to employment (such as those that affect drivers' licenses, welfare access, or residence locations). This constitutes suggestive evidence that hidden sentences— even those that do not restrict specific occupations—may play a role in labor market outcomes. That said, a careful examination of exactly how hidden sentences contribute to labor market struggles after incarceration is warranted.

Second, looming over any of the mechanisms we suggest is the broader issue of enforcement. Some hidden sentences are automatically triggered, such as those that automatically disseminate criminal records to various state and non-state employers, impose mandatory civil fines and forfeitures, or make the justice-involved completely ineligible for public employment in many states. Others require discretionary action to be activated, such as when statutes grant medical, barbering, and other professional boards the power to consider arrests and convictions in the granting or renewal of occupational licenses. We focus here on those hidden sentences that are categorized as automatic, but it is clearly difficult to know exactly how or when hidden sentences become activated. In Wisconsin, for instance, barbering and cosmetology boards are required to deny, restrict, or suspend the licenses of those who are convicted of a felony, but it is unknown how often the boards actually comply with such a mandate. Such questions are more relevant with "mandatory" laws that involve more interpretation. In Delaware, for instance, anyone convicted of a crime "substantially related" to the practice of barbering or beautician services is ineligible for a license, but no legal guidelines

list such crimes. One suggested avenue for future research, then, would be to follow a cohort of individuals as they progress though the system, examining what hidden sentences become activated at various stages and what actors drive those decisions. It would also be useful to examine whether hidden sentences are context dependent, given that larger views on crime and crime control across jurisdictions could affect the activation of hidden sentences.

Third, further research is needed to more clearly examine how a state's labor force is affected by hidden sentences. The current framework of the NICCC database prohibits connecting specific hidden sentences to specific occupational domains, but this issue clearly warrants additional attention. Fourth, although we are interested in the effect of these policies on labor market outcomes for the justice-involved, our study is only correlational. Although we control for an array of characteristics that may confound our association of interest, we cannot speak to causality with this study design, and it would be useful to test our conclusions using methodologies that can more fully account for observed and unobserved sources of spuriousness. Finally, our measure of hidden sentences is time stable, and thus we cannot determine whether changes in hidden sentences change labor market outcomes. This is an important area for future research, especially in light of recent attempts to remove postconviction barriers and ease reintegration (Love and Schlussel 2019).

Additional research should also consider whether hidden sentences affect other outcomes associated with incarceration. Restrictions on access to financial aid, for example, could play an important role in the link between incarceration and educational attainment. More broadly, hidden sentences may drive larger patterns of socioeconomic inequality through differential access to credit and opportunities to accumulate wealth (Sykes and Maroto 2016). Given that states have increasingly been charged with and granted power to implement social and economic policies, future research might also consider how additional aspects of the state social policy regime are associated with outcomes among the justice-involved. For example, state-level policies regarding child support could be useful in understanding the relationship between parental incarceration and child outcomes. This is especially important given that Noah Zatz and Michael Stoll (2020) show that the threat of incarceration to enforce court-mandated work requirements can push noncustodial fathers into low-wage employment. Thus, more research is needed to determine how hidden sentences affect individual, family, and community outcomes following arrests, convictions, and periods of incarceration.

Taken together, our findings provide important insights on the relationship between criminal justice contact and socioeconomic inequality through labor market participation. In response to recent calls to push beyond average effects of incarceration (Apel and Ramakers 2019; Kirk and Wakefield 2017), our findings show how state-level policies of social exclusion interact with criminal justice contact to put justice-involved individuals at a distinct disadvantage in the labor market. This provides important insights on how the overall consequences of criminalization play out in jurisdictions across the country.

REFERENCES

American Bar Association (ABA). 2013. "National Inventory of the Collateral Consequences of Conviction." Chicago: American Bar Association. Accessed January 23, 2020. https://niccc.csgjustice center.org.

Apel, Robert, and Kathleen Powell. 2019. "Level of Criminal Justice Contact and Early Adult Wage Inequality." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 5(1): 198–222. DOI: 10.7758/RSF.2019.5.1.09.

Apel, Robert, and Anke Ramakers. 2019. "Impact of Incarceration on Employment Prospects." In *Handbook of the Consequences of Sentencing and Punishment Decisions*, edited by Beth M. Huebner and Natasha A. Frost. New York: Routledge.

Apel, Robert, and Gary Sweeten. 2010. "The Impact of Incarceration on Employment during the Transition to Adulthood." *Social Problems* 57(3): 448–79.

Beckett, Katherine, and Steve Herbert. 2010. *Banished: The New Social Control in Urban America*. New York: Oxford University Press.

Blau, Peter M., and Otis Dudley Duncan. 1967. *The American Occupational Structure*. New York: Free Press.

Brayne, Sarah. 2014. "Surveillance and System Avoidance: Criminal Justice Contact and Institutional Attachment." *American Sociological Review* 79(3): 367–91. DOI: 10.1177/00031224145 30398.

Burden, Barry C., David T. Canon, Kenneth R. Mayer, and Donald P. Moynihan. 2014. "Election Laws, Mobilization, and Turnout: The Unanticipated Consequences of Election Reform." *American Journal of Political Science* 58(1): 95–109. DOI: 10.1111/ajps.12063.

Cadigan, Michele, and Gabriela Kirk. 2020. "On Thin Ice: Bureaucratic Processes of Monetary Sanctions and Job Insecurity." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 6(1): 113–31. DOI: 10.7758/RSF.2020.6.1.05.

Carson, E. Ann. 2018. "Prisoners in 2016." CNJ 251149. Washington, D.C.: Bureau of Justice Statistics.

Cheng, Siwei. 2014. "A Life Course Trajectory Framework for Understanding the Intracohort Pattern of Wage Inequality." *American Journal of Sociology* 120(3): 633–700. DOI: 10.1086/679103.

Chin, Gabriel J. 2011. "The New Civil Death: Rethinking Punishment in the Era of Mass Conviction." *University of Pennsylvania Law Review* 160(6): 1789–833.

Danziger, Sheldon, and David Ratner. 2010. "Labor Market Outcomes and the Transition to Adulthood." *The Future of Children* 20(1): 133–58.

DiPrete, Thomas A., and Gregory M. Eirich. 2006. "Cumulative Advantage as a Mechanism for Inequality: A Review of Theoretical and Empirical Developments." *Annual Review of Sociology* 32(1): 271–97.

Ewald, Alec C. 2012. "Collateral Consequences in the American States." *Social Science Quarterly* 93(1): 211–47. DOI: 10.1111/j.1540-6237.2011 .00831.x.

Geller, Amanda, and Marah A. Curtis. 2011. "A Sort of Homecoming: Incarceration and the Housing Security of Urban Men." *Social Science Research* 40(4): 1196–1213. DOI: 10.1016/j.ssresearch.2011 .03.008.

Harris, Alexes. 2016. *A Pound of Flesh: Monetary Sanctions as Punishment for the Poor*. New York: Russell Sage Foundation.

Heinrich, Carolyn J. 2018. "Presidential Address: 'A Thousand Petty Fortresses': Administrative Burden in U.S. Immigration Policies and Its Consequences." *Journal of Policy Analysis and Management* 37(2): 211–39. DOI: 10.1002/pam .22046.

Herd, Pamela, and Donald P. Moynihan. 2019. *Administrative Burden: Policymaking by Other Means*. New York: Russell Sage Foundation.

Holzer, Harry J. 1996. *What Employers Want: Job Prospects for Less-Educated Workers*. New York: Russell Sage Foundation.

Hoxby, Caroline M., and Sarah Turner. 2015. "What High-Achieving Low-Income Students Know about College." *American Economic Review* 105(5): 514–17. DOI: 10.1257/aer.p20151027.

Kaiser, Joshua H. 2016. "Revealing the Hidden Sentence: How to Add Transparency, Legitimacy, and Purpose to Collateral Punishment Policy." *Harvard Law & Policy Review* 10(1): 123–84.

Kirk, David S., and Sara Wakefield. 2017. "Collateral Consequences of Punishment: A Critical Review and Path Forward." *Annual Review of Criminology* 1:171–94. DOI: 10.1146/annurev-criminol-032317 -092045.

Love, Margaret, and David Schlussel. 2019. "Reducing Barriers to Reintegration: Fair Chance and Expungement Reforms in 2018." Washington, D.C.: Collateral Consequences Resource Center.

Lyons, Christopher J., and Becky Pettit. 2011. "Compounded Disadvantage: Race, Incarceration, and Wage Growth." *Social Problems* 58(2): 257–80. DOI: 10.1525/sp.2011.58.2.257.

Miller, Reuben Jonathan, and Forrest Stuart. 2017. "Carceral Citizenship: Race, Rights and Responsibility in the Age of Mass Supervision." *Theoretical Criminology* 21(4): 532–48.

Moynihan, Donald P., Pamela Herd, and Elizabeth Ribgy. 2016. "Policymaking by Other Means: Do States Use Administrative Barriers to Limit Access to Medicaid?" *Administration & Society* 48(4): 497–524. DOI: 10.1177/0095399713 503540.

Pager, Devah. 2003. "The Mark of a Criminal Record." *American Journal of Sociology* 108(5): 937–75.

———. 2007. *Marked: Race, Crime, and Finding Work in an Era of Mass Incarceration*. Chicago: University of Chicago Press.

Paternoster, Raymond, Robert Brame, Paul Mazerolle, and Alex Piquero. 1998. "Using the Correct Statistical Test for the Equality of Regression

Coefficients." *Criminology* 36(4): 859–66. DOI: 10.1111/j.1745-9125.1998.tb01268.x.

Petersilia, Joan. 2003. *When Prisoners Come Home: Parole and Prisoner Reentry*. New York: Oxford University Press.

Pettit, Becky, and Bruce Western. 2004. "Mass Imprisonment and the Life Course: Race and Class Inequality in U.S. Incarceration." *American Sociological Review* 69(2): 151–69. DOI: 10.1177/000312240406900201.

Plassmeyer, Mark, and Shannon Sliva. 2018. "Social Exclusion as a State-Level Predictor of Changes in Collateral Sanctions." *Criminal Justice Review* 43(2): 236–51. DOI: 10.1177/0734016817721292.

Raphael, Steven. 2007. "Early Incarceration Spells and the Transition to Adulthood." In *The Price of Independence: The Economies of Early Adulthood*, edited by Sheldon Danziger and Cecilia E. Rouse. New York: Russell Sage Foundation.

Remster, Brianna, and Rory Kramer. 2018. "Race, Space, and Surveillance: Understanding the Relationship Between Criminal Justice Contact and Institutional Involvement." *Socius* 4(January): 2378023118761434. DOI: 10.1177/2378023118761434.

Rindfuss, Ronald R. 1991. "The Young Adult Years: Diversity, Structural Change, and Fertility." *Demography* 28(4): 493–512.

Sampson, Robert J., and John H. Laub. 1992. "Crime and Deviance in the Life Course." *Annual Review of Sociology* 18: 63–84.

Shannon, Sarah K.S., Christopher Uggen, Jason Schnittker, Melissa Thompson, Sara Wakefield, and Michael Massoglia. 2017. "The Growth, Scope, and Spatial Distribution of People with Felony Records in the United States, 1948–2010." *Demography*, September, 1–24. DOI: 10.1007/s13524-017-0611-1.

Silva, Jennifer M. 2012. "Constructing Adulthood in an Age of Uncertainty." *American Sociological Review* 77(4): 505–22. DOI: 10.1177/0003122412449014.

Sironi, Maria. 2018. "Economic Conditions of Young Adults Before and After the Great Recession." *Journal of Family and Economic Issues* 39(1): 103–16. DOI: 10.1007/s10834–017–9554–3.

Stavsky, Mark M. 2002. "No Guns or Butter for Thomas Bean: Firearms Disabilities and Their Occupational Consequences." *Fordham Urban Law Review* 30(5): 1759–813.

Steinberg, Laurence, He Len Chung, and Michelle Little. 2004. "Reentry of Young Offenders from the Justice System: A Developmental Perspective." *Youth Violence and Juvenile Justice* 2(1): 21–38. DOI: 10.1177/1541204003260045.

Sugie, Naomi F., and Kristin Turney. 2017. "Beyond Incarceration: Criminal Justice Contact and Mental Health." *American Sociological Review* 82(4): 719–43. DOI: 10.1177/0003122417713188.

Swartz, Teresa Toguchi, Heather McLaughlin, and Jeylan T. Mortimer. 2017. "Parental Assistance, Negative Life Events, and Attainment During the Transition to Adulthood." *Sociological Quarterly* 58(1): 91–110. DOI: 10.1080/00380253.2016.1246898.

Sykes, Bryan L., and Michelle Maroto. 2016. "A Wealth of Inequalities: Mass Incarceration, Employment, and Racial Disparities in U.S. Household Wealth, 1996 to 2011." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 2(6): 129–52. DOI: 10.7758/RSF.2016.2.6.07.

Travis, Jeremy. 2002. "Invisible Punishment: An Instrument of Social Exclusion." In *Invisible Punishment: The Collateral Consequences of Mass Imprisonment*, edited by Marc Mauer and Meda Chesney-Lind. New York: New Press.

Travis, Jeremy, and Bruce Western. 2014. "The Growth of Incarceration in the United States: Exploring Causes and Consequences." Washington, D.C.: National Academies Press. http://johnjay.jjay.cuny.edu/nrc/nas_report_on_incarceration.pdf.

Uggen, Christopher, and Jeff Manza. 2002. "Democratic Contraction? Political Consequences of Felon Disenfranchisement in the United States." *American Sociological Review* 67(6): 777–803.

Uggen, Christopher, and Robert Stewart. 2014. "Piling on: Collateral Consequences and Community Supervision." *Minnesota Law Review* 99(5): 1871–910.

Uggen, Christopher, Mike Vuolo, Sarah Lageson, Ebony Ruhland, and Hilary K. Whitham. 2014. "The Edge of Stigma: An Experimental Audit of the Effects of Low-Level Criminal Records on Employment." *Criminology* 52(4): 627–54. DOI: 10.1111/1745–9125.12051.

University of Kentucky Center for Poverty Research (UKCPR). 2019. "UKCPR National Welfare Data, 1980–2017." Lexington, Ky. Accessed October 7, 2019. http://ukcpr.org/resources/national-welfare-data.

U.S. Bureau of Justice Statistics. 2017. *National Prisoner Statistics Program (NPS)*. Washington: Office of Justice Programs.

U.S. Bureau of Labor Statistics, Department of Labor. 2015. *National Longitudinal Survey of Youth 1997 Cohort, 1997–2015*. Columbus, Ohio: Center for Human Resource Research, Ohio State University.

U.S. Census Bureau. 2000. "Census 2000 Summary File 1." Retrieved from https://www.socialexplorer.com/ (accessed October 7, 2019).

———. 2010. "Census 2010 Summary File 1." Retrieved from https://www.socialexplorer.com/ (accessed October 7, 2019).

———. 2017. "2005–2015 American Community Survey 1-Year State-Level Estimates." Retrieved from https://www.socialexplorer.com/ (accessed October 7, 2019).

Vallas, Rebecca, and Sharon Dietrich. 2014. *One Strike and You're Out: How We Can Eliminate Barriers to Economic Security and Mobility for People with Criminal Records*. Washington, D.C.: Center for American Progress. Accessed September 27, 2019. https://cdn.americanprogress.org/wp-content/uploads/2014/12/Vallas CriminalRecordsReport.pdf.

Wakefield, Sara, and Robert Apel. 2016. "Criminal Justice and the Life Course." In *Handbook of the Life Course*, vol. II, edited by Michael J. Shanahan, Jeylan T. Mortimer, and Monica Kirkpatrick Johnson. Cham: Springer International. DOI: 10.1007/978-3-319–20880-0_13.

Wakefield, Sara, and Christopher Uggen. 2010. "Incarceration and Stratification." *Annual Review of Sociology* 36(1): 387–406. DOI: 10.1146/annurev.soc.012809.102551.

Waldo, James, Herbert S. Lin, and Lynette I. Millett, eds. 2007. *Engaging Privacy and Information Technology in a Digital Age*. Washington, D.C.: National Academies Press.

Western, Bruce. 2002. "The Impact of Incarceration on Wage Mobility and Inequality." *American Sociological Review* 67(4): 526–46.

———. 2006. *Punishment and Inequality in America*. New York: Russell Sage Foundation.

Western, Bruce, and Becky Pettit. 2005. "Black-White Wage Inequality, Employment Rates, and Incarceration." *American Journal of Sociology* 111(2): 553–78. DOI: 10.1086/432780.

Western, Bruce, and Catherine Sirois. 2018. "Racialized Re-Entry: Labor Market Inequality After Incarceration." *Social Forces* 97(4): 1–26. DOI: 10.1093/sf/soy096.

Whittle, Tanya N. 2018. "Felony Collateral Sanctions Effects on Recidivism: A Literature Review." *Criminal Justice Policy Review* 29(5): 505–24. DOI: 10.1177/0887403415623328.

Zatz, Noah D., and Michael A. Stoll. 2020. "Working to Avoid Incarceration: Jail Threat and Labor Market Outcomes for Noncustodial Fathers Facing Child Support Enforcement." *RSF: The Russell Sage Foundation Journal of the Social Sciences* 6(1): 55–81. DOI: 10.7758/RSF.2020.6.1.03.

Table A1. Linear probability models predicting young adult employment (employed in any month since last interview)

	Model 1	Model 2	Model 3	Model 4
Young adult incarceration	-0.166***	-0.166***	-0.167***	-0.022
	(0.025)	(0.025)	(0.025)	(0.067)
Low hidden sentences (referent)	--	--	--	--
Mid hidden sentences		-0.018	-0.006	0.001
		(0.013)	(0.016)	(0.016)
High hidden sentences		-0.019	0.003	0.009
		(0.013)	(0.020)	(0.020)
Interactions				
Incarceration X Mid HS				-0.158*
				(0.075)
Incarceration X High HS				-0.158*
				(0.076)
Controls				
Gender (male=1)	0.053***	0.053***	0.053***	0.054***
	(0.008)	(0.008)	(0.008)	(0.008)
White (referent)	--	--	--	--
Black	-0.033**	-0.031**	-0.034**	-0.034**
	(0.010)	(0.010)	(0.011)	(0.011)
Other race	-0.008	-0.008	-0.003	-0.004
	(0.012)	(0.012)	(0.012)	(0.012)
Less than high school degree (referent)	--	--	--	--
High school degree	0.021	0.021	0.020	0.020
	(0.017)	(0.017)	(0.017)	(0.017)
Two-year college (no degree)	0.064***	0.065***	0.066***	0.065***
	(0.018)	(0.018)	(0.018)	(0.018)
Two-year college (degree)	0.096***	0.095***	0.095***	0.095***
	(0.021)	(0.021)	(0.021)	(0.021)
Four-year college (no degree)	0.096***	0.095***	0.094***	0.093***
	(0.018)	(0.018)	(0.018)	(0.018)
Four-year college (degree)	0.135***	0.135***	0.135***	0.135***
	(0.017)	(0.017)	(0.017)	(0.017)
Unmarried (referent)	--	--	--	--
Cohabitating	0.032**	0.032**	0.032**	0.032**
	(0.011)	(0.011)	(0.011)	(0.011)
Married	-0.020+	-0.019+	-0.020+	-0.020+
	(0.012)	(0.012)	(0.012)	(0.012)
Divorced/Separated	-0.020	-0.020	-0.022	-0.022
	(0.022)	(0.022)	(0.022)	(0.022)

(table A1 continued next page)

(Table A1 cont)

Parent	-0.005	-0.005	-0.005	-0.005
	(0.010)	(0.010)	(0.010)	(0.010)
Homeowner	0.007	0.007	0.006	0.007
	(0.011)	(0.011)	(0.011)	(0.011)
Lives with parents	0.005	0.006	0.007	0.007
	(0.009)	(0.009)	(0.010)	(0.010)
Arrested before age 25	-0.003	-0.004	-0.005	-0.005
	(0.010)	(0.010)	(0.010)	(0.010)
Employed at age 25	0.346***	0.346***	0.346***	0.344***
	(0.017)	(0.017)	(0.017)	(0.017)
State-level controls				
% non-Hispanic Black			0.001	0.001
			(0.001)	(0.001)
% 4-year degree or higher			-0.001	-0.001
			(0.001)	(0.001)
Unemployment rate			-0.014**	-0.014**
			(0.005)	(0.005)
State maximum allowable welfare			0.000	0.000
			(0.000)	(0.000)
Gross state product			-0.000	-0.000
			(0.000)	(0.000)
Incarceration rate			-0.000	-0.000
			(0.000)	(0.000)
Constant	0.471***	0.487***	0.566***	0.568***
	(0.023)	(0.026)	(0.079)	(0.078)
N	7,166	7,166	7,166	7,166
R^2	0.178	0.178	0.179	0.180

+ $p<.10$, * $p<.05$, ** $p<.01$, *** $p<.001$; Standard errors in parentheses; Individual data from NLSY97; State-level hidden sentences data from NICCC, US Census, ACS, UKCPR, and BJS.

Table A2. Linear probability models predicting young adult full-time employment (among those employed since last interview)

	Model 1	Model 2	Model 3	Model 4
Young adult incarceration	-0.143***	-0.142***	-0.143***	-0.174+
	(0.033)	(0.033)	(0.033)	(0.099)
Low hidden sentences (referent)	--	--	--	--
Mid hidden sentences		0.028	0.045+	0.045+
		(0.020)	(0.025)	(0.025)
High hidden sentences		0.047*	0.074*	0.071*
		(0.020)	(0.030)	(0.030)
Interactions				
Incarceration X Mid HS				-0.004
				(0.109)
Incarceration X High HS				0.077
				(0.110)
Controls				
Gender (male=1)	0.150***	0.150***	0.150***	0.150***
	(0.012)	(0.012)	(0.012)	(0.012)
White (referent)	--	--	--	--
Black	-0.007	-0.010	-0.018	-0.017
	(0.014)	(0.014)	(0.015)	(0.015)
Other race	0.014	0.010	0.016	0.016
	(0.016)	(0.017)	(0.017)	(0.017)
Less than high school degree (referent)	--	--	--	--
High school degree	0.068**	0.070**	0.070**	0.069**
	(0.022)	(0.022)	(0.022)	(0.022)
Two-year college (no degree)	0.093***	0.093***	0.095***	0.095***
	(0.024)	(0.024)	(0.024)	(0.024)
Two-year college (degree)	0.134***	0.136***	0.136***	0.137***
	(0.030)	(0.030)	(0.030)	(0.030)
Four-year college (no degree)	0.147***	0.150***	0.148***	0.148***
	(0.025)	(0.025)	(0.025)	(0.025)
Four-year college (degree)	0.209***	0.211***	0.212***	0.212***
	(0.024)	(0.024)	(0.024)	(0.024)
Unmarried (referent)	--	--	--	--
Cohabitating	0.026	0.026	0.026	0.026
	(0.016)	(0.016)	(0.016)	(0.016)
Married	0.014	0.013	0.010	0.010
	(0.016)	(0.016)	(0.016)	(0.016)
Divorced/Separated	-0.021	-0.023	-0.029	-0.029
	(0.029)	(0.029)	(0.029)	(0.029)

(table A2 continued next page)

(Table A2 cont)

Parent	0.005	0.004	0.003	0.003
	(0.014)	(0.014)	(0.014)	(0.014)
Homeowner	0.010	0.010	0.009	0.009
	(0.015)	(0.015)	(0.015)	(0.015)
Lives with parents	-0.006	-0.008	-0.007	-0.007
	(0.013)	(0.013)	(0.013)	(0.013)
Arrested before age 25	-0.050***	-0.049***	-0.050***	-0.050***
	(0.013)	(0.013)	(0.013)	(0.013)
Employed full-time at age 25	0.193***	0.192***	0.191***	0.191***
	(0.012)	(0.012)	(0.012)	(0.012)
State-level controls				
% non-Hispanic Black			0.001	0.001
			(0.001)	(0.001)
% 4-year degree or higher			0.001	0.001
			(0.002)	(0.002)
Unemployment rate			-0.015*	-0.014*
			(0.007)	(0.007)
State maximum allowable welfare			0.000	0.000
			(0.000)	(0.000)
Gross state product			-0.000	-0.000
			(0.000)	(0.000)
Incarceration rate			0.000	0.000
			(0.000)	(0.000)
Constant	0.412***	0.379***	0.371***	0.368***
	(0.027)	(0.032)	(0.112)	(0.112)
N	6,022	6,022	6,022	6,022
R^2	0.110	0.111	0.113	0.114

+ $p<.10$, * $p<.05$, ** $p<.01$, *** $p<.001$; Standard errors in parentheses; Individual data from NLSY97; State-level hidden sentences data from NICCC, US Census, ACS, UKCPR, and BJS.

Table A3. Linear regression models predicting young adult wages (natural log)

	Model 1	Model 2	Model 3	Model 4
Young adult incarceration	-2.454***	-2.451***	-2.462***	-0.379
	(0.244)	(0.244)	(0.244)	(0.685)
Low hidden sentences (referent)	--	--	--	--
Mid hidden sentences		-0.369*	-0.071	0.034
		(0.144)	(0.179)	(0.180)
High hidden sentences		-0.341*	0.160	0.250
		(0.145)	(0.221)	(0.222)
Interactions				
Incarceration X Mid HS				-2.340**
				(0.752)
Incarceration X High HS				-2.176**
				(0.771)
Controls				
Gender (male=1)	1.035***	1.035***	1.032***	1.041***
	(0.091)	(0.091)	(0.091)	(0.091)
White (referent)	--	--	--	--
Black	-0.402***	-0.366***	-0.396***	-0.390***
	(0.109)	(0.110)	(0.115)	(0.115)
Other race	0.065	0.064	0.134	0.127
	(0.129)	(0.130)	(0.131)	(0.131)
Less than high school degree (referent)	--	--	--	--
High school degree	0.709***	0.703***	0.694***	0.688***
	(0.176)	(0.176)	(0.176)	(0.176)
Two-year college (no degree)	1.453***	1.458***	1.473***	1.470***
	(0.188)	(0.188)	(0.188)	(0.188)
Two-year college (degree)	1.838***	1.830***	1.834***	1.832***
	(0.229)	(0.229)	(0.229)	(0.228)
Four-year college (no degree)	1.859***	1.844***	1.822***	1.809***
	(0.192)	(0.192)	(0.192)	(0.191)
Four-year college (degree)	2.505***	2.498***	2.493***	2.492***
	(0.186)	(0.186)	(0.187)	(0.186)
Unmarried (referent)	--	--	--	--
Cohabitating	0.459***	0.453***	0.454***	0.452***
	(0.122)	(0.122)	(0.122)	(0.122)
Married	-0.010	-0.007	-0.021	-0.022
	(0.123)	(0.123)	(0.123)	(0.123)
Divorced/Separated	-0.447+	-0.437+	-0.473*	-0.478*
	(0.240)	(0.240)	(0.240)	(0.240)

(table A3 continued next page)

(Table A3 cont)

Parent	-0.360***	-0.355***	-0.355***	-0.355***
	(0.107)	(0.107)	(0.107)	(0.107)
Homeowner	-0.049	-0.052	-0.066	-0.063
	(0.123)	(0.123)	(0.124)	(0.123)
Lives with parents	0.140	0.150	0.175+	0.174+
	(0.102)	(0.103)	(0.103)	(0.103)
Arrested before age 25	-0.268*	-0.277**	-0.292**	-0.294**
	(0.105)	(0.106)	(0.105)	(0.106)
Wages (age 25)	0.056***	0.056***	0.057***	0.057***
	(0.003)	(0.003)	(0.004)	(0.003)
State-level controls				
% non-Hispanic Black			-0.003	-0.003
			(0.007)	(0.007)
% 4-year degree or higher			0.019	0.019
			(0.016)	(0.016)
Unemployment rate			-0.093+	-0.093+
			(0.052)	(0.052)
State maximum allowable welfare			0.001	0.001
			(0.000)	(0.000)
Gross state product			-0.000**	-0.000**
			(0.000)	(0.000)
Incarceration rate			0.001	0.001
			(0.000)	(0.000)
Constant	5.470***	5.785***	5.181***	5.194***
	(0.204)	(0.238)	(0.849)	(0.846)
N	7,166	7,166	7,166	7,166
R^2	0.224	0.224	0.226	0.228

Table A4. Linear regression models predicting young adult wages (earners only; natural log)

	Model 1	Model 2	Model 3	Model 4
Young adult incarceration	-0.604***	-0.602***	-0.604***	-0.251
	(0.128)	(0.128)	(0.128)	(0.191)
Low hidden sentences (referent)	--	--	--	--
Mid hidden sentences		-0.078+	-0.013	0.006
		(0.046)	(0.062)	(0.062)
High hidden sentences		0.034	0.128+	0.140+
		(0.044)	(0.075)	(0.076)
Interactions				
Incarceration X Mid HS				-0.488+
				(0.271)
Incarceration X High HS				-0.304
				(0.275)
Controls				
Gender (male=1)	0.335***	0.333***	0.335***	0.335***
	(0.032)	(0.032)	(0.032)	(0.032)
White (referent)	--	--	--	--
Black	-0.198***	-0.194***	-0.185***	-0.184***
	(0.043)	(0.043)	(0.045)	(0.045)
Other race	0.087*	0.067+	0.061	0.061
	(0.038)	(0.038)	(0.038)	(0.038)
Less than high school degree (referent)	--	--	--	--
High school degree	0.135*	0.137*	0.135*	0.136*
	(0.065)	(0.065)	(0.065)	(0.065)
Two-year college (no degree)	0.414***	0.413***	0.406***	0.407***
	(0.064)	(0.064)	(0.065)	(0.065)
Two-year college (degree)	0.490***	0.494***	0.488***	0.491***
	(0.080)	(0.079)	(0.079)	(0.079)
Four-year college (no degree)	0.540***	0.542***	0.538***	0.537***
	(0.067)	(0.067)	(0.067)	(0.066)
Four-year college (degree)	0.832***	0.835***	0.828***	0.830***
	(0.064)	(0.064)	(0.064)	(0.065)
Unmarried (referent)	--	--	--	--
Cohabitating	0.011	0.010	0.008	0.008
	(0.045)	(0.045)	(0.045)	(0.045)
Married	0.055	0.051	0.053	0.053
	(0.037)	(0.037)	(0.037)	(0.037)
Divorced/Separated	-0.231+	-0.237*	-0.236*	-0.235*
	(0.119)	(0.119)	(0.118)	(0.118)

(table A4 continued next page)

(Table A4 cont)

Parent	-0.016	-0.017	-0.017	-0.018
	(0.036)	(0.036)	(0.036)	(0.036)
Homeowner	0.062	0.064	0.072	0.072
	(0.044)	(0.044)	(0.044)	(0.044)
Lives with parents	-0.043	-0.047	-0.050	-0.050
	(0.036)	(0.036)	(0.036)	(0.036)
Arrested before age 25	-0.049	-0.049	-0.052	-0.051
	(0.036)	(0.036)	(0.036)	(0.036)
Wages (age 25)	0.018***	0.018***	0.017***	0.017***
	(0.002)	(0.002)	(0.002)	(0.002)
State-level controls				
% non-Hispanic Black			-0.001	-0.001
			(0.003)	(0.003)
% 4-year degree or higher			0.009+	0.009+
			(0.005)	(0.005)
Unemployment rate			-0.013	-0.013
			(0.017)	(0.017)
State maximum allowable welfare			0.000	0.000
			(0.000)	(0.000)
Gross state product			0.000	-.000
			(0.000)	(0.000)
Incarceration rate			0.000	0.000
			(0.000)	(0.000)
Constant	9.111***	9.133***	8.708***	8.691***
	(0.082)	(0.090)	(0.282)	(0.283)
N	5,812	5,812	5,812	5,812
R^2	0.215	0.216	0.217	0.218

Table A5. Linear probability models predicting young adult employment (employed in any month since last interview)

	Model 1	Model 2	Model 3	Model 4
Mutually exclusive criminal justice contact (no contact = referent)				
Arrested only	-0.030	-0.030	-0.031	0.098**
	(0.022)	(0.022)	(0.022)	(0.030)
Arrested and convicted	-0.026	-0.027	-0.027	0.083
	(0.026)	(0.026)	(0.026)	(0.059)
Incarcerated	-0.170***	-0.170***	-0.171***	-0.017
	(0.025)	(0.025)	(0.025)	(0.067)
Low hidden sentences (referent)	--	--	--	--
Mid hidden sentences		-0.018	-0.006	0.010
		(0.013)	(0.016)	(0.017)
High hidden sentences		-0.019	0.002	0.019
		(0.013)	(0.020)	(0.021)
Interactions				
Arrested X Mid HS				-0.092*
				(0.041)
Arrested X High HS				-0.190***
				(0.048)
Convicted X Mid HS				-0.170*
				(0.071)
Convicted X High HS				-0.080
				(0.071)
Incarcerated X Mid HS				-0.167*
				(0.075)
Incarcerated X High HS				-0.168*
				(0.077)
Constant	0.472***	0.489***	0.568***	0.559***
	(0.023)	(0.026)	(0.079)	(0.079)
Controls included				
Individual-level	Yes	Yes	Yes	Yes
State-level	No	No	Yes	Yes
N	7,166	7,166	7,166	7,166
R^2	0.178	0.178	0.179	0.182

+ p<.10, * p<.05, ** p<.01, *** p<.001; Standard errors in parentheses; Individual data from NLSY97; State-level hidden sentences data from NICCC

Table A6. Linear probability models predicting young adult full-time employment (among those employed since last interview)

	Model 1	Model 2	Model 3	Model 4
Mutually exclusive criminal justice contact (no contact = referent)				
Arrested only	-0.161***	-0.160***	-0.163***	0.010
	(0.032)	(0.033)	(0.032)	(0.110)
Arrested and convicted	-0.072*	-0.069+	-0.069+	0.041
	(0.035)	(0.036)	(0.036)	(0.083)
Incarcerated	-0.160***	-0.159***	-0.161***	-0.181+
	(0.033)	(0.033)	(0.033)	(0.099)
Low hidden sentences (referent)	--	--	--	--
Mid hidden sentences		0.029	0.045+	0.056*
		(0.020)	(0.025)	(0.026)
High hidden sentences		0.046*	0.072*	0.083**
		(0.020)	(0.030)	(0.031)
Interactions				
Arrested X Mid HS				-0.155
				(0.118)
Arrested X High HS				-0.231+
				(0.121)
Convicted X Mid HS				-0.138
				(0.099)
Convicted X High HS				-0.125
				(0.098)
Incarcerated X Mid HS				-0.017
				(0.109)
Incarcerated X High HS				0.066
				(0.110)
Constant	0.418***	0.386***	0.379***	0.359**
	(0.026)	(0.032)	(0.111)	(0.111)
Controls included				
Individual-level	Yes	Yes	Yes	Yes
State-level	No	No	Yes	Yes
N	6,022	6,022	6,022	6,022
R^2	0.115	0.116	0.118	0.119

+ p<.10, * p<.05, ** p<.01, *** p<.001; Standard errors in parentheses; Individual data from NLSY97; State-level hidden sentences data from NICCC

Table A7. Linear regression models predicting young adult earnings

	All Respondents				Earners Only
	Model 1	Model 2	Model 3	Model 4	Model 5
Mutually exclusive criminal justice contact (no contact = referent)					
Arrested only	-0.703**	-0.695**	-0.704**	1.687***	0.316+
	(0.258)	(0.257)	(0.257)	(0.366)	(0.166)
Arrested and convicted	-0.503+	-0.521+	-0.519+	0.939*	0.040
	(0.277)	(0.276)	(0.277)	(0.423)	(0.121)
Incarcerated	-2.549***	-2.546***	-2.559***	-0.336	-0.259
	(0.246)	(0.245)	(0.246)	(0.687)	(0.191)
Low hidden sentences (referent)	--	--	--	--	--
Mid hidden sentences		-0.368*	-0.073	0.193	0.041
		(0.144)	(0.179)	(0.185)	(0.064)
High hidden sentences		-0.346*	0.151	0.385+	0.167*
		(0.146)	(0.222)	(0.227)	(0.077)
Interactions					
Arrested X Mid HS				-2.341***	-0.870**
				(0.516)	(0.274)
Arrested X High HS				-2.810***	-0.641**
				(0.534)	(0.204)
Convicted X Mid HS				-2.221***	-0.087
				(0.599)	(0.170)
Convicted X High HS				-1.095+	-0.244
				(0.603)	(0.176)
Incarcerated X Mid HS				-2.509***	-0.526+
				(0.754)	(0.271)
Incarcerated X High HS				-2.317**	-0.330
				(0.773)	(0.275)
Constant	5.502***	5.819***	5.218***	5.043***	8.648***
	(0.204)	(0.239)	(0.851)	(0.847)	(0.282)
N	7,166	7,166	7,166	7,166	5,812
R^2	0.225	0.226	0.228	0.231	0.223

+ p<.10, * p<.05, ** p<.01, *** p<.001; Standard errors in parentheses; Individual data from NLSY97; State-level hidden sentences data from NICCC, US Census, ACS, UKCPR, and BJS.