

Who is in private prisons? Demographic profiles of prisoners and workers in American private prisons

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ABSTRACT: Who is in private prisons? This seemingly straightforward question has received surprisingly little attention in the United States. This paper analyzes national prison data to provide demographic profiles of prisoners and workers in private prisons in the United States and to compare them to prisoners and workers in state and federal prisons. It summarizes data on jurisdiction, sentence length, race, and citizenship of prisoners, as well as the race and gender of correctional officers. Results reveal differences between private and public prisons with respect to both prisoners and workers. Specifically, private prisons detain inmate populations that are disproportionately non-white, under federal jurisdiction, and serving short sentences; and they employ officers that are disproportionately female and black or Hispanic. These results depict the private prison sector as distinct from its public counterpart—both in terms of prisoner and staff composition. A discussion considers the implications of these findings for equity in punishment.

Keywords: prisons; privatization; private prisons; race; citizenship

1. Introduction

Who is in private prisons? This seemingly straightforward question has received little attention in the United States. Despite many attempts to compare the performance of private versus public prisons, research typically pays little attention to the people that occupy private prisons—either as prisoners or as employees. The identity of the prisoners and workers in private prisons is important for several reasons. First, there is a growing body of evidence that private prisons fare poorly on a variety of performance measures, including access to health care and work assignments. Second, critics have long suspected that private prison firms skim the best inmates with lowest needs in an attempt to minimize costs. Third, private prisons are typically non-unionized workplaces that provide lower levels of compensation to employees. Thus, overexposure to private prisons—as a prisoner or as a worker—may have negative consequences for the people they detain and employ.

This paper seeks to offer a demographic portrait of prisoners and workers in private prisons, and to compare them to prisoners and workers in state and federal prisons. It does so by analyzing national prison data from the Bureau of Justice Statistics. The paper summarizes data on jurisdiction, sentence length, citizenship, and race of private prison inmates, and it summarizes the race and gender of correctional officers employed in private prisons. Results reveal differences between private and public prisons with respect to both prisoners and workers. In particular, private prisons hold inmate populations that are disproportionately non-white, under federal jurisdiction, and serving short sentences; and they employ officers that are disproportionately female and black or Hispanic. These results suggest that private prisons do not simply replicate the practices of the public sector. Instead, private prisons rely on workers from historically marginalized groups to incarcerate relatively low-risk inmates. The findings raise

two questions for future research. First, what is the process by which inmates are assigned to private (versus public) facilities? Second, what is the process by which women and minority correctional officers are relegated to work in the low-wage private prison market?

2. Prior research on prisoners and employees in private prisons

The modern private prison industry emerged in the US in the 1980s. The industry was powered by two forces: rising imprisonment rates and an ascendant market-oriented conservatism. Increasing reliance on prison as a form of punishment meant that the existing prison stock was inadequate to hold the growing population of prisoners (Blumstein and Beck, 1999). Reagan-era fondness for market solutions and disdain for big government led some jurisdictions to turn to the private sector to supplement their existing prison stock. Not only would private firms build the prisons, they would also operate them. This move allowed harsh state punishment to continue while giving the appearance of shrinking (or slowing growth of) government bureaucracy.

Despite a wealth of research comparing the cost and quality of private and public prisons, few studies have examined the occupants of private prisons—both prisoners and employees. There are several exceptions. The earliest is a report by Austin and Coventry (2001), published for the Bureau of Justice Assistance. It included a systematic comparison of inmates and staff at public prisons (in 1995) and private prisons (in 1997) in the US. The following year, Camp and Gaes (2002) published an article in *Criminology & Public Policy* that summarized staffing data from a 1999 survey of private prisons. And Blakely and Bumphus' (2004) article in *Federal Probation* analyzed staff and inmate data using a sample of private prisons in 1998 (representing 54% of private prisons). These studies offer some insights regarding who inhabits private

prisons. The identity of prisoners and workers in private prisons deserves further study because of concerns regarding the quality of incarceration and employment at private prisons, as discussed below.

2.1. Private prison inmates

There is evidence that conditions for inmates in private prisons are inferior to those in state or federal prisons. Although not unambiguous (Feeley, 2014), recent research has found that inmates in private prisons receive unjust discipline (Mukherjee, 2014), are less likely to have a work assignment (Makarios and Maahs, 2012), have limited access to disease prevention programs (Makarios and Maahs, 2012), have more grievances (Lundahl et al., 2009), and are guarded by staff with less training and experience (Camp and Gaes, 2002; Lundahl et al., 2009).

Who decides whether an inmate is held in a private or public prison? The assignment process is opaque. At least one lawsuit claims that (in Oklahoma) the process of assigning inmates to equivalent private or public prisons is "arbitrary" (Tolan, 2016). Yet critics have long suspected that private prisons craft contracts that exclude high-cost inmates from private sector incarceration. While systematic data on contracts is not readily available (Tartaglia, 2014), reports from individual states offer evidence of this "skimming" (Friedmann, 2014). For example, private prison contracts in Arizona mandated that high-risk inmates or those with high medical needs were not to be sent to private prisons (Pranis, 2005). And in Minnesota, a private prison "did not accept any offenders over the age of 60 [...] or any prisoners with serious medical conditions or mental health disorders" (Duwe and Clark, 2013, p. 379). Such cost-related assignment criteria may influence the composition of private prison inmate populations. In practice, what types of prisoners end up in private prisons? Previous work and knowledge of

the industry lead to expectations regarding inmates' jurisdiction, sentence length, citizenship, and race.

2.1.1. Jurisdiction

A given private prison may contract with multiple jurisdictions to hold prisoners. As such, they are likely to hold inmates for different levels of government (local, state, federal) and from different parts of the country. In extreme cases, speculative (or "spec") prisons may be built in the hopes of eventually receiving inmates from some—any—jurisdiction (Taylor-Grover, 2012). Additionally, private prisons contract with the federal government to hold non-US citizens for immigration-related purposes (discussed further below). As a result, we should expect that the industry will hold proportionately more federal inmates and out-of-state inmates than do state prisons.

2.1.2. Sentence length

Private prisons are also likely to hold inmates serving shorter average sentences. Previous research has revealed a bifurcation in carceral responsibilities: the private sector has taken over a large share of low-security, community-based correctional facilities, while the public sector has retained a near monopoly over high-security confinement facilities (Austin and Coventry, 2001; Burkhardt, 2016). Because individuals' sentence length is correlated with prison security levels, we would expect that private prisons hold inmates serving relatively short sentences. In fact, there is some evidence that this is the case. Blakely and Bumphus (2004) found that prisoners in private prisons averaged 11 months of time served (compared to 28 months in the public sector).

2.1.3. Citizenship

Recent years have seen the private prison industry shift its focus to immigrant detention. From 2002 to 2010, the number of detainees held by private firms for Immigration and Customs Enforcement (ICE) tripled—from 4,841 to 14,814. Private firms now hold close to two-thirds of the detained immigrant population for ICE (Gruberg, 2015). But the industry does not hold immigrants solely for ICE. It also holds immigrants for the federal Bureau of Prisons (BOP) in so-called Criminal Alien Requirement (CAR) prisons, which first appeared in 1999 (ACLU, 2014). These 13 private CAR prisons now hold more than 25,000 "low-security criminal aliens" (ACLU, 2014, p. 19). Private prisons are therefore expected to hold a disproportionate number of non-US citizens.

2.1.4. Race

In addition to foreign nationals, there is also evidence that racial minorities play an outsized role in private prisons. Previous work has found that racial minorities tend to be overrepresented in private prisons. Burkhardt (2015) and Petrella (2013; 2013) have shown that private prisons disproportionately hold persons of color, particularly Hispanics (also see Austin and Coventry, 2001). Petrella (2013; Petrella and Begley, 2013) argues that these racial disparities in private prison placement are due to contractual arrangements wherein private firms favor younger inmates, who tend to have fewer health-related expenses and who are less likely to be classified as white.

2.2. Private prison employees

Employment as a correctional officer (CO) is a difficult job: "the toughest beat" in law enforcement (Lambert et al., 2015; Page, 2011). Various accounts suggest that doing the job in the private sector brings additional challenges. Private prisons are guided by a business ethos,

which directs them to maximize revenues and minimize costs. The largest operating expense for prisons is labor (Austin and Coventry, 2001). It therefore offers the greatest potential for cost savings, via reduced compensation and reduced staffing. Several sources offer evidence that private prisons pay employees less. For example, in 1998, the lowest entry-level salary for COs in the private sector was \$15,919, compared to \$21,246 in the public sector. The maximum salary for COs in the private sector was \$19,103, compared to \$34,004 in the public sector (Blakely & Bumphus, 2004; also see Barak, Leighton, & Cotton, 2015; Camp & Gaes, 2002; Newkirk & Selway, 2013).¹ One recent investigation reported that a private prison in Louisiana paid new COs an hourly wage of \$9 (Bauer, 2016). Given a year-round 40-hour work week, this equates to an annual salary of less than \$19,000.

In return for low pay, private COs are often tasked with managing *more* inmates. Blakely and Bumphus (2004) and Stephan (2008) have found that prisoner-to-staff ratios were higher in private prisons than in public ones (cf. Camp and Gaes, 2002; Makarios and Maahs, 2012). Several reports of individual prisons reveal severe staff shortages in private prisons, which contributed to unsafe conditions for inmates and staff (AP, 2014; Bauer, 2016; Makarios and Maahs, 2012). Perhaps not surprisingly, private sector COs do not remain in their jobs as long as their public counterparts. According to Blakely and Bumphus (2004), the average annual turnover rate for COs in private prisons was 43%, compared to only 15% in public prisons (also see Camp and Gaes, 2002). With very few exceptions, employees in private prisons are not

¹ In 2016 dollars, these equate to a range of \$23,522 to \$31,393 in the private sector and \$28,227 to \$50,245 in the public sector.

represented by a labor union, a fact that undoubtedly contributes to the lower rates of pay and reduced job security (Austin and Coventry, 2001).

2.2.1. Race and gender

We know even less about private prison employees than we do about private prison inmates. Austin and Coventry (2001) reported that private prisons in the mid-1990s employed proportionately more minority workers than their public counterparts; black and Hispanic workers combined for 36% of employees in private facilities but only 26% in public ones. Race of staff may be especially important, as some research has shown that black COs may serve to moderate the use of punitive discipline inside prisons (Wade-Olson, 2016). No prior work has established the gender composition of correctional officers in the private sector. One partial exception is work by Hogan, Lambert, Jenkins, and Hall (2009), which found men constituted less than 60% of all staff in a single maximum security private prison in the Midwestern United States.

3. Data

The analysis relies on national prison data to determine who lives and works in private prisons. The primary data source is the Bureau of Justice Statistics' *Census of State and Federal Adult Correctional Facilities*. The *Census* collects information on all adult facilities—publicly or private run—that primarily hold inmates for state or federal authorities. The data are based on administrative records provided by officials in state departments of corrections or individual facilities. Collected in 2005, this is the most recent census of correctional facilities, and it allows for a more timely portrait of private prison inmates and employees than those found in previous studies. The sample includes all facilities in the *Census*, with several exceptions. Most

importantly, the sample considers only medium and minimum security facilities. Maximum and super-maximum security facilities are excluded because these types of facilities are run almost exclusively by public sector authorities (Burkhardt, 2016). Approximately 98% of all private facilities in the 2005 dataset were rated as either minimum (88%) or medium (10%) security.² Additionally, facilities in Illinois are excluded because that state did not report current data for 2005, as are facilities operated jointly by local and state authorities.

This sample is used to estimate aggregate characteristics of private prisons and compare them to characteristics of state and federal prisons. The analysis considers several features of prisoners and employees aggregated at the prison level: inmate jurisdiction, inmate sentence length, inmate citizenship, inmate race, security staff race, and security staff gender. These prison-level variables were turned into proportions, with the number of prisoners (or workers) with a given characteristic divided by the total number of prisoners (or workers) in the prison.^{3,4}

² Among 366 maximum or supermaximum facilities, only eight (2.19%) were operated by private firms.

³ Single-day counts of prisoners and workers were used as the denominator. Some prisons reported more prisoners (or workers) of a certain type than total prisoners (or workers). In these cases, values were capped at 100%.

⁴ Respondents could flag count-based variables to indicate that the response was an actual number, an estimated number, not applicable, or "don't know". Values on the count-based variables did not always correspond to these flags. If a respondent indicated "Don't know" but also provided a valid response for the count-based variable, the facility was treated as a non-responder for that question. If a respondent indicated "not applicable" and did not indicate a value, the facility was also treated as a non-responder for that question. However, if a respondent indicated "not applicable" and indicated a quantity of zero, the zero value was used. This decision was based on the assumption that the respondent believed the question was not applicable precisely because the facility had zero prisoners or staff of the given type. This coding decision affected between zero and 32 facilities, depending on the variable in question.

The BJS *Census* contains information on the *sentencing jurisdiction* of inmates held in private (and other) prisons. Facilities may hold prisoners from the federal government, the state housing the facility, another state government, or local government.⁵ Federal prisons hold only prisoners under federal jurisdiction and are therefore excluded from this analysis.

Prisoner sentences are coded according to three categories. Prisoners may be sentenced to up to one year in prisons, more than one year in prison, or they may be as yet unsentenced. *Prisoner citizenship* is also included in the BJS *Census*, which indicates the number of prisoners who are not US citizens. Although the BJS *Census* excludes ICE-operated immigration detention centers, it does include correctional facilities that have large numbers of non-citizens. Many of these are so-called Criminal Alien Requirement (CAR) prisons, which house low-security non-citizens for the federal Bureau of Prisons (BOP). Thus, the data on citizenship refers to individuals who have been convicted of some crime, rather than immigrants who are merely being held for investigation or deportation.⁶

The BJS Census asked authorities to report the *race of prisoners*. The questionnaire included mutually exclusive categories for white, black, and Hispanic inmates, as well as several less common categories.⁷ (Federal facilities reported data without consideration of Hispanic

⁵ The questionnaire also asked about inmates held for tribal governments. In practice, no facility reported holding prisoners for tribal governments, and thus this outcome is not considered below.

⁶ Forty-three state and two private prisons in Virginia did not report data on prisoner citizenship. As such, these observations are not analyzed, and Virginia is under-represented in estimates of prisoner citizenship.

⁷ Specifically, the response options were: "White, not of Hispanic origin"; "Black or African American, not of Hispanic origin"; "Hispanic or Latino"; "American Indian/Alaska Native";

status, which produces estimates that are not comparable to state or private prisons. As a result, the analysis of prisoner race does not consider federal facilities.) Prisons also reported the *race and gender of employees*. For race, the questionnaire again used a set of mutually exclusive categories for white, black, and Hispanic inmates. Gender categories included male and female. The analysis below considers only "security staff"—i.e., front-line correctional officers (COs).⁸

4. Analytic strategy

The analysis that follows offers a demographic portrait of prisoners and workers in private prisons, and it compares them to prisoners and workers in state and federal prisons. It does this in two steps. First, it describes the composition of prisoner and security staff populations in an "average" private, federal, and state prisons by calculating the unweighted, unadjusted mean population share related to inmate jurisdictions, sentences, citizenship, and race, and also security staff race.⁹

"Asian"; "Native Hawaiian or Other Pacific Islander"; "Two or more races"; and "Additional categories in your information system."

⁸ Most California state facilities contain missing or invalid data on staff (e.g., 59 of 62 facilities report having no full-time staff to manage more than 2,000 prisoners on average). As a result, these observations are not analyzed and thus California is under-represented in the estimates of staff race.

⁹ This unweighted average does not account for variation in the size of facilities. It thus gives undue influence to very small facilities, which are given as much weight as large facilities. An alternative approach calculates a weighted average for private, state, and federal prisons. This value weights each facility according to size, and thereby gives more influence to larger facilities. The resulting quantity can be interpreted as the share of the private (or state or federal) *sector* that takes on a given characteristics (e.g., with respect to race). Weighted averages are provided in an appendix.

Private prisons differ from public prisons in systematic ways (e.g., size, program offerings, etc.), which may account for cross-sector differences that show up in the unweighted, unadjusted facility means. To account for these differences, step two presents a series of multilevel regression analyses that statistically control for confounding factors. Each multilevel regression allows for state-to-state variation in operator effects and controls for facility security level (medium or minimum), gender composition (all males, all females, mixed), prisoner population (natural log of Average Daily Population), US non-citizen composition (except in citizenship model), and various facility functions.¹⁰ Standard errors are adjusted for clustering within states.¹¹

A final methodological detail deserves attention before presenting the results. Some of the inmate and staff variables below are compositional, in that the component values should add up to 100%. Often, this is not the case. (For example, estimates of inmate racial composition sum to well over 100% below.) This is caused by two issues. First, respondents are not obliged to ensure that the values they enter for a compositional variable sum to 100%. Second, respondents may have submitted values for some but not all categories of a compositional variable. For example, a respondent may have submitted responses for the number of prisoners serving sentences up to one year and more than one year but failed to provide a count of the number of

¹⁰ These functions are not mutually exclusive and include: general adult population; alcohol or drug abuse treatment; reception; mental health treatment; community corrections; and return-to-custody.

¹¹ Prisons within the same state are likely to be more similar to each other than to prisons in other states (i.e., prisons clustered within states are not independent). This results in artificially low variance in the estimates, which can induce Type I error. Clustered standard errors help to address this problem by producing a more accurate (typically larger) estimate of the variance (Stock and Watson, 2015).

unsentenced prisoners. The result is that facilities that do not respond to an item will be omitted from the resulting calculations.¹² This induces some unknown amount and direction of sample selection bias into the estimates below. As such, the reader is cautioned to interpret the resulting estimates as approximations of true values, particularly for estimates based on samples with many missing values (e.g., prisoner jurisdiction).

5. Results

5.1. Unweighted means

Figure 1 presents unweighted, unadjusted means for private, state, and federal prisons. The results tell us, in effect, what an average facility in each sector looks like. As seen in Figure 1, private prisons tend to hold a larger share of inmates sentenced by federal authorities, compared to state prisons. This is offset somewhat by private prisons' relatively small number of inmates held for in-state authorities.

In terms of prisoner sentences, private prisons tend to lock up more prisoners serving short (up to one year) sentences compared to state prisons or federal prisons. Inmates serving these short sentences make up roughly one-third of the population in a typical private prison, but they are much less common in a typical state (11%) or federal (1%) prison. On the other hand, private prisons hold fewer prisoners with long (more than one year) sentences. 83% of the

¹² Certain measures suffered from widespread non-response. The least-reported outcome measures related to jurisdiction. The worst response rate related to prisoners from out-of-state jurisdictions; 679 facilities (48.5%) failed to provide a valid response for this item.

average private prison population is serving a sentence of more than one year, compared to more than 90% of state or federal prisons.

Private prison populations typically contain on average a small number of non-citizens (less than 10%). This figure is similar to the typical state prison but is much smaller than the typical federal prison, where non-citizens make up more than 20% of the population in a typical facility. The average private prison holds proportionately more Hispanic inmates than the average state prison. The larger presence of Hispanic inmates is offset by slightly smaller shares of black and white inmates.

Correctional officers in private prisons are more likely to be Hispanic or black compared to COs in state or federal prisons. White COs predominate in state and federal prisons, but they are closely rivaled by black COs in private prisons, where they constitute 48% and 46% of the CO population, respectively. Private prisons also tend to hire fewer male COs (69%) relative to state prisons (75%) or federal prisons (85%).

[FIGURE 1 HERE]

In sum, private prisons are distinguished from their public counterparts in housing a relatively large number of inmates serving less than one-year sentences for federal authorities and in employing female and black or Hispanic security staff. These differences, however, may be attributable to other factors besides private operation. To assess whether this is the case, the

following section employs a multilevel regression approach to more precisely identify the degree to which private prisons *qua* private prisons are different from their public counterparts.

5.2.Multilevel regression

The second analysis employs a mixed effects multilevel regression model to understand whether private prisons differ from public prisons after accounting for other known differences between the two sectors. The results reveal that private prison populations are different from their state and federal counterparts on several dimensions. The results are presented in two formats. Table 1 presents the regression coefficients for operator status (state and federal; private is the reference category). Statistically significant positive (negative) signs indicate that the prisoner or employee population in a typical state or federal prison had a higher (lower) proportion of a given type of person in the prison compared to a private prison. Figure 2 uses the results from the statistical model to predict the average prisoner and worker composition of private, state, and federal prisons after accounting for observed differences among prisons. In effect, these predicted values tell us what an average facility would look like if it were converted to private, state, or federal management, while holding all other variables at their observed values.¹³

[TABLE 1 HERE]

¹³ These predictions were generated using the 'margins' command in Stata 13 (StataCorp LP, 2016). Predictions are based on estimated coefficients and average values from the variables in the model (which, in a linear model, is equivalent to using the observed values for all cases in the sample).

Table 1 shows that private prisons hold a disproportionately large number of inmates for federal authorities. The federal inmate share of private prisons is about 37 percentage points higher than that of state prisons. The significance and direction of this result is to be expected, as private operators have since 1999 operated facilities to hold "criminal aliens" for the federal Bureau of Prisons.¹⁴ After accounting for cross-sector differences, federal inmates are predicted to make up more than 40% of the population in private prisons, compared to less than four percent in state prisons (see Figure 2).¹⁵ In both private and state prisons, in-state prisoners constitute the vast majority of the population.

[FIGURE 2 HERE]

In terms of sentences, inmates in private prisons are significantly more likely than inmates in state or federal prisons to be serving a short (less than one year) sentence. Although the modal prisoner in private, state, and federal prisons is serving more than one year, prisoners

¹⁴ Private prisons also have larger shares of inmates held for out-of-state authorities (nearly 5 points higher than state prisons). However, this result should be read with skepticism, as the non-significant Wald chi squared test of joint significance does not allow us to reject the possibility that the coefficients for all explanatory variables in the model are zero.

¹⁵ The estimate of federal inmates in private prisons is imprecise and almost certainly too high due to high non-response and possible sample selection bias. Of 403 private prisons in the sample, only 227 (56%) provided a valid response to this question.

with short sentences make up 28% of the adjusted population in private prisons, compared to roughly 10% in state and federal prisons.

After accounting for confounding variables, private prisons hold significantly fewer non-citizens than federal prisons, but they are comparable to state prisons on this measure. Whereas non-citizens make up more than 60% of federal prison populations after regression adjustment, they make up only 10% of the adjusted populations in private and state prisons. The prisoner population in private facilities is also significantly less white than comparable state facilities. White inmates make up 53% of the adjusted population in state prisons but only 45% of the population in private prisons. The relatively small number of white inmates in private prisons is offset to a degree by larger shares of black and Hispanic inmates, although these private-state differences do not reach statistical significance in the model presented in Table 1. Despite being relatively rare in private prisons, the modal inmate remains white, with black inmates and Hispanic inmates appearing in smaller numbers.

State-private racial differences are greater among prison security staff. Relative to state prisons, private prisons employ significantly fewer whites and significantly more Hispanics and (especially) blacks as COs. (The federal-private coefficient is statistically significant for white COs but not for black or Hispanic COs.) While white COs make up the largest race category in all types of prisons, their adjusted share in private prisons is 56% (compared to 70% in state prisons and 66% in federal prisons). Unlike white employees, black and Hispanic employees make up a larger portion of security staff in private prisons compared to state prisons. The adjusted shares of black and Hispanic security staff in private prisons are 40% and 11%, respectively (compared to 22% and 6% in state prisons). Finally, compared to both state and federal prisons, private prisons employ significantly more female (and fewer male) COs. Women

are estimated to make up roughly half of COs in private prisons but only about one-quarter in state and federal prisons.¹⁶

6. Discussion

The people in private prisons are different from those in public—both state and federal—prisons. Private prisons hold inmate populations that are disproportionately non-white, under federal jurisdiction, and serving short sentences; and they employ correctional officers that are disproportionately female and black or Hispanic. To the extent that private prisons hold and employ different populations, they should be viewed as an auxiliary piece of the prison system, rather than a direct substitute for traditional state or federal prisons. This is not inconsequential. For prisoners, an assignment to a private prison brings risks: of unfair discipline (Mukherjee, 2014), inadequate health care (Makarios and Maahs, 2012; Wessler, 2016), and idleness (Makarios and Maahs, 2012). For workers, employment in a private prison likely brings a low salary and an unpredictable future (Bauer, 2016; Stephan, 2008).

Policymakers should take heed of these findings for at least two reasons. First, private prisons have historically sold their services on the basis of price (Dolovich, 2009). But price is only meaningful in relation to the service being provided. In the case of private prisons, this and other research (e.g., Friedmann, 2014) indicates a preference for lower risk and lower cost inmates. If this "creaming" (Logan, 1990, p. 121) of inmates is to be permitted, it is absolutely critical that contracts reduce payments accordingly. Otherwise, alleged cost savings will be offset

¹⁶ The estimate for female COs in private prisons is likely too high due to measurement error (see Section 4 above). However, the fact that the predicted share of male COs in private prisons is significantly lower than that in state or federal prisons suggests that the gender difference is real, and not simply a result of private prisons over-reporting COs of both genders.

by higher costs borne by public prisons, who will retain responsibility for the high-cost inmate population. Second, many policymakers have viewed private prisons as engines for economic growth (e.g., Cummins, 2000), despite a lack of empirical evidence to support such ideas (Genter et al., 2013). Policymakers should be aware that private prisons tend to employ staff that are more likely to be racial minorities or women, relative to state or federal prisons. Given the documented pattern of poor compensation and instability in private prison jobs (Bauer, 2016; Blakely and Bumphus, 2004; Selman and Leighton, 2010), the true result is likely to be an employment model that takes advantage of existing labor market insecurities among historically marginalized groups of workers, not the robust economic engine that civic leaders might hope for.

These findings raise questions for future research. First, what is the process by which inmates are assigned to private (versus public) facilities? Contractual arrangements between a government and contractor specify the types of inmates that may or may not be received by private prisons. Unfortunately, these contracts are generally not open to public scrutiny. This is unfortunate because the private contractors are providing a service (incarceration) that is fraught with potential violations of inmates' constitutional rights and because taxpayers are ultimately paying the price (literally) for the service (Tartaglia, 2014). The most direct source of information on these assignment rules is the contract itself. But because public records laws typically do not apply to private prisons, these documents are not readily available (Selman and Leighton, 2010; Tartaglia, 2014). Future work could partner with Departments of Corrections to clarify private-public assignment rules without revealing trade secrets.

Second, what is the process by which female and minority correctional officers are relegated to work in the low-wage private prison market? Is the overrepresentation a mere

artifact of the racial and gender composition of local labor markets? For example, work by Eason (2010) has shown that new prisons in the 1990s were more likely to be built in towns with larger black and Hispanic (and poor) populations. Or, alternatively, are female and black or Hispanic workers overrepresented in private prisons because these workers have been relegated to this "secondary labor market" through processes of racial or gender discrimination in the public sector? Are members of historically marginalized groups, with higher average unemployment rates and lower earnings, simply more willing to accept low compensation offered by private prisons? These questions could be examined via case studies of hiring practices and local labor markets in private prison towns.

The analyses presented here have several limitations. First, the data are more than ten years old. Unfortunately, more recent data are not available and it is therefore unknown whether these results hold today. Second, the data reported to the BJS are measured with error. Many respondents indicated explicitly that their answers were "estimates" rather than precisely known quantities. This results in greater variance in the means and regression coefficients which may result in Type II error: failure to reject the null hypothesis of no difference between sectors. For this reason, the tests of cross-sector differences are conservative and the findings of statistically significant differences are therefore more persuasive. Third, the sample varies for each estimate, which may introduce sample selection bias, whereby the precise point estimates are biased (in some unknown direction). One method for ensuring consistency in sample size (if not eliminating sample selection bias) across models would involve removing all facilities that failed to report any response—i.e., listwise deletion. While this would ensure a consistent sample size, it would remove most facilities from the analysis. Although we cannot know the relevant outcomes for prisons that did not report them, the multilevel regression models at least take into

account the observed differences between sectors that may affect prisoner and staff composition and separate these from the effects of private versus public management *per se*. Moreover, concerns regarding sample selection bias are small for analyses that have relatively complete data (e.g., prisoner citizenship and race and staff race and gender).

Overall, this research points to inequities in prison privatization and suggests the importance of applying an equity lens to future considerations of private prisons (Hallett, 2006). Racial disparities have received increasing amounts of attention in analyses of the US criminal justice system, especially in the domains of imprisonment and policing (Alexander, 2010; Kirk, 2008; Western, 2006). These analyses of broad trends are critically important to understanding the functioning of the criminal justice system in the US. The current research adds to this body of work by positing that privatization in the criminal justice system may involve its own unique forms of social inequities and disparities--on both sides of the bars.

7. References

- ACLU, 2014. Warehoused and Forgotten: Immigrants Trapped in Our Shadow Private Prison System [WWW Document]. URL <https://www.aclu.org/sites/default/files/assets/060614-aclu-car-reportonline.pdf> (accessed 7.20.16).
- Alexander, M., 2010. *The new Jim Crow: mass incarceration in the age of colorblindness*. New Press, New York.
- AP, 2014. Idaho to take over privately-run state prison [WWW Document]. USA Today. URL <http://www.usatoday.com/story/news/nation/2014/01/03/idaho-prison/4304689/> (accessed 10.10.16).
- Austin, J., Coventry, G., 2001. *Emerging Issues on Privatized Prisons*. Bureau of Justice Assistance, Washington, D.C.
- Barak, G., Leighton, P., Cotton, A., 2015. *Class, race, gender, and crime: The social realities of justice in America*, 4th ed. Rowman & Littlefield, Lanham, MD.
- Bauer, S., 2016. My four months as a private prison guard [WWW Document]. Mother Jones. URL <http://www.motherjones.com/politics/2016/06/cca-private-prisons-corrections-corporation-inmates-investigation-bauer> (accessed 7.28.16).
- Blakely, C.R., Bumphus, V.W., 2004. Private and public sector prisons--A comparison of select characteristics. *Fed. Probat.* 68, 27–31.
- Blumstein, A., Beck, A.J., 1999. Population Growth in U. S. Prisons, 1980-1996. *Crime and Justice* 26, 17–61.
- Burkhardt, B.C., 2016. Who punishes whom? Bifurcation of private and public responsibilities in criminal punishment. *J. Crime Justice*. doi:10.1080/0735648X.2016.1174619
- Burkhardt, B.C., 2015. Where Have All the (White and Hispanic) Inmates Gone? Comparing the Racial Composition of Private and Public Adult Correctional Facilities. *Race Justice* 5, 33–57. doi:10.1177/2153368714539355
- Camp, S.D., Gaes, G.G., 2002. Growth and quality of U.S. private prisons: Evidence from a national survey. *Criminol. Public Policy* 1, 427–450. doi:10.1111/j.1745-9133.2002.tb00102.x
- Cummins, C.E., 2000. *Private Prisons in Texas, 1987-2000: The Legal, Economic, and Political Influences on Policy Implementation*. Sch. Public Aff. The American University, Washington, D.C.
- Dolovich, S., 2009. How privatization thinks: The case of prisons, in: Freeman, J., Minnow, M. (Eds.), *Government by Contract: Outsourcing and American Democracy*. Harvard University Press, Cambridge, MA, pp. 128–152.
- Duwe, G., Clark, V., 2013. The effects of private prison confinement on offender recidivism: Evidence from Minnesota. *Crim. Justice Rev.* 38, 375–394.

- Eason, J., 2010. Mapping prison proliferation: Region, rurality, race and disadvantage in prison placement. *Soc. Sci. Res.* 39, 1015–1028. doi:10.1016/j.ssresearch.2010.03.001
- Feeley, M.M., 2014. The unconvincing case against private prisons. *Indiana Law J.* 89, 1401–1436.
- Friedmann, A., 2014. Apples-To-Fish: Public and Private Prison Cost Comparisons. *Fordham Urban Law J.* 42, 503–569.
- Genter, S., Hooks, G., Mosher, C., 2013. Prisons, jobs and privatization: The impact of prisons on employment growth in rural US counties, 1997-2004. *Soc. Sci. Res.* 42, 596–610. doi:10.1016/j.ssresearch.2012.12.008
- Gruberg, S., 2015. How For-Profit Companies Are Driving Immigration Detention Policies [WWW Document]. *Cent. Am. Prog.* URL <https://www.americanprogress.org/issues/immigration/report/2015/12/18/127769/how-for-profit-companies-are-driving-immigration-detention-policies/> (accessed 10.5.16).
- Hallett, M.A., 2006. *Private Prisons in America: A Critical Race Perspective*. University of Illinois Press, Urbana.
- Hogan, N.L., Lambert, E.G., Jenkins, M., Hall, D.E., 2009. The impact of job characteristics on private prison staff: Why management should care. *Am. J. Crim. Justice* 34, 151–165. doi:10.1007/s12103-009-9060-8
- Kirk, D.S., 2008. The neighborhood context of racial and ethnic disparities in arrest. *Demography* 45, 55–77.
- Lambert, E.G., Hogan, N.L., Griffin, M.L., Kelley, T., 2015. The correctional staff burnout literature. *Crim. Justice Stud.*
- Logan, C.H., 1990. *Private Prisons: Cons and Pros*. Oxford University Press, New York.
- Lundahl, B.W., Kunz, C., Brownell, C., Harris, N., Van Vleet, R., 2009. Prison privatization: A meta-analysis of cost and quality of confinement indicators. *Res. Soc. Work Pract.* 19, 383–394.
- Makarios, M.D., Maahs, J., 2012. Is private time quality time? A national private-public comparison of prison quality. *Prison J.* 92, 336–357.
- Mukherjee, A., 2014. Does prison privatization distort justice? Evidence on time served and recidivism [WWW Document]. *SSRN Electron. J.* doi:10.2139/ssrn.2523238
- Newkirk, M., Selway, W., 2013. Gangs Ruled Prison as For-Profit Model Put Blood on Floor [WWW Document]. *Bloomberg*. URL <http://www.bloomberg.com/news/articles/2013-07-12/gangs-ruled-prison-as-for-profit-model-put-blood-on-floor> (accessed 10.10.16).
- Page, J., 2011. *The Toughest Beat: Politics, Punishment, and the Prison Officers' Union in California*, *Studies in crime and public policy*. Oxford University Press, New York.
- Petrella, C., 2013. *The Color of Corporate Corrections, Part II: Contractual Exemptions and the*

- Overrepresentation of People of Color in Private Prisons [WWW Document]. *Radic. Criminol.* URL <http://journal.radicalcriminology.org/index.php/rc/article/view/44/html>
- Petrella, C., Begley, J., 2013. The Color of Corporate Corrections: The Overrepresentation of People of Color in the For-Profit Corrections Industry [WWW Document]. *Radic. Criminol.* URL <http://radicalcriminology.org/journal/index.php/rc/article/view/27/html>
- Pranis, K., 2005. Cost-Saving or Cost-Shifting: The Fiscal Impact of Prison Privatization in Arizona [WWW Document]. *Justice Strateg.* URL <http://www.justicestrategies.org/publications/2005/cost-saving-or-cost-shifting-fiscal-impact-prison-privatization-arizona> (accessed 10.17.16).
- Selman, D., Leighton, P., 2010. *Punishment for Sale: Private Prisons, Big Business, and the Incarceration Binge*, Issues in crime & justice. Rowman & Littlefield Publishers, Lanham, MD.
- StataCorp LP, 2016. *Stata | Data Analysis and Statistical Software* [WWW Document]. URL <http://www.stata.com/> (accessed 5.17.16).
- Stephan, J.J., 2008. *Census of State and Federal Correctional Facilities, 2005*. Bureau of Justice Statistics, Washington, D.C.
- Stock, J.H., Watson, M.W., 2015. *Introduction to Econometrics*, 3rd ed. Pearson, Boston.
- Tartaglia, M., 2014. Private Prisons, Private Records. *Bost. Univ. Law Rev.* 94, 1689–1744.
- Taylor-Grover, L., 2012. Speculative Prisons: An Analysis, in: Price, B.E., Morris, C. (Eds.), *Prison Privatization: The Many Facets of a Controversial Industry*. Praeger, Santa Barbara, CA, pp. 199–214.
- Tolan, C., 2016. Are private prisons ripping prisoners off on food? [WWW Document]. *Fusion*. URL <http://fusion.net/story/348070/geo-group-lawton-commissary-michael-leatherwood-lawsuit/> (accessed 9.27.16).
- Wade-Olson, J., 2016. Race, Staff, and Punishment: Representative Bureaucracy in American State Prisons. *Adm. Soc.* doi:10.1177/0095399716667156
- Wessler, S.F., 2016. “This Man Will Almost Certainly Die” [WWW Document]. *The Nation*. URL <https://www.thenation.com/article/privatized-immigrant-prison-deaths/> (accessed 10.12.16).
- Western, B., 2006. *Punishment and Inequality in America*. Russell Sage Foundation, New York.

8. Appendix

This unweighted means presented in the text (Figure 1) do not account for variation in the size of facilities. As such, they give undue influence to very small facilities, which are given as much weight as large facilities. An alternative approach calculates a *weighted average* for private, state, and federal prisons. This value weights each facility according to size (either prisoner population or security staff population), and thereby gives more influence to larger facilities. The resulting quantity can be interpreted as the share of the private (or state or federal) *sector* that takes on a given characteristics (e.g., with respect to race).

Figure A1 shows these weighted averages for the private, state, and federal sectors. In terms of *jurisdiction*, most prisoners in the private sector (73%) are held for in-state authorities. Federal inmates make up 36% of the private sector population, much more than the share found state prison systems (3%). Local and out-of-state prisoners make up less than 10% of the population in the average private facility, which is roughly comparable to the average state facility. The most common *sentence* among private, state, and federal facilities is greater than one year. Private facilities differ from state and federal facilities, however, in their larger share of inmates serving short sentences. Roughly 14% of prisoners in private facilities are serving less than one year, compared to 7% and 1% in state and federal facilities, respectively.

Private and federal facilities are similar in having a large proportion of inmates with foreign *citizenship* (18% and 23% respectively). Both have significantly larger shares of non-citizens than state facilities, which average only 5%. The largest *racial groups among prisoners* in the private sector were white and black, both constituting 34% of the private sector. Hispanic inmates also made up sizeable share of the private prisoner population, accounting for 28% of

that population. Hispanic prisoners made up a significantly smaller share of state systems: only 18%.

In terms of *security staff*, correctional officers (COs) in the private sector were significantly less white than both the state and federal sectors. Black and Hispanic employees made up 33% and 17% of private security staff and were significantly more common in private facilities than in state (25% black and 7% Hispanic) or federal ones (22% black and 12% Hispanic). Private sector COs were also more likely to be women (43%) compared to the state and federal sectors (24% and 14%, respectively).

[FIGURE A1 HERE]

9. Tables

Table 1: Results from multilevel regression analysis

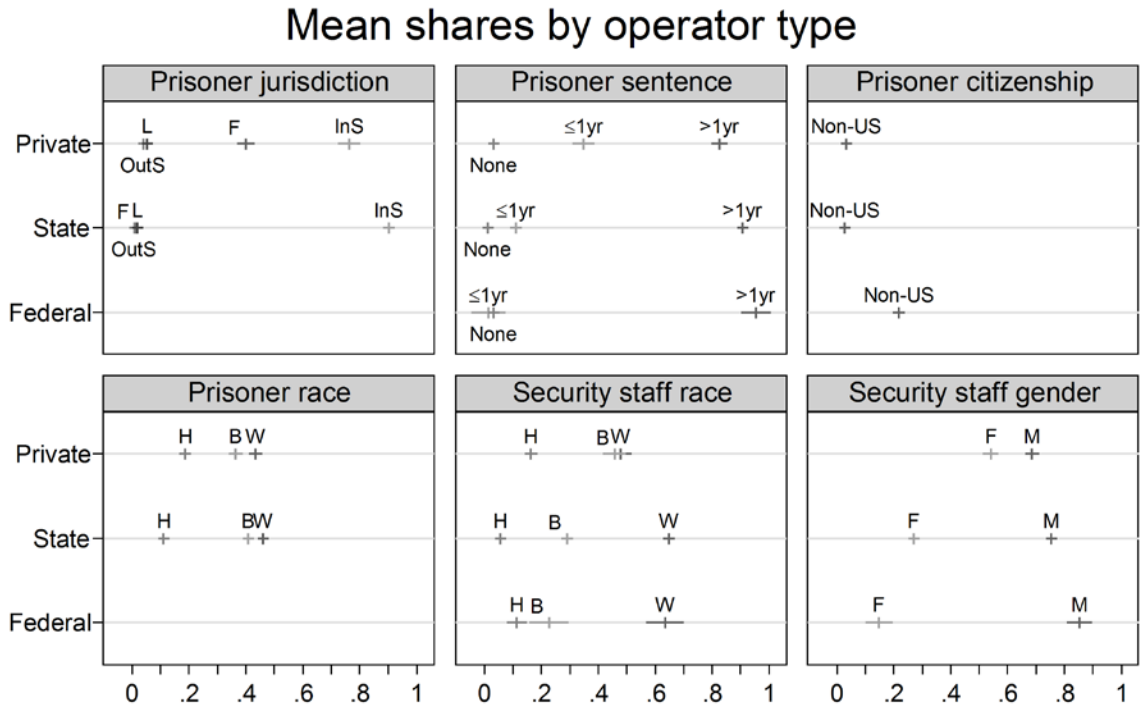
<i>Panel A</i>	Jurisdiction				Sentence length			Citizenship
	Federal	Own state	Other state	Local	> 1 year	≤ 1 year	Unsentenced	Non-US citizen
State (vs. private)	-0.369*** [0.062]	0.078 [0.049]	-0.047* [0.024]	-0.007 [0.026]	0.021 [0.044]	-0.174** [0.061]	-0.021 [0.024]	-0.001 [0.008]
Federal (vs. private)					0.053 [0.041]	-0.189*** [0.051]	-0.013 [0.026]	0.185*** [0.021]
Chi ²	149.307	72.33	11.513	25.738	58.419	102.232	36.074	80.329
P	0	0	0.568	0.018	0	0	0.001	0
States	50	49	48	49	50	49	48	50
Facilities	767	935	681	687	1126	952	860	1304

<i>Panel B</i>	Inmate race			Security staff race			Security staff gender	
	White (non-H)	Black (non-H)	Hispanic	White (non-H)	Black (non-H)	Hispanic	Male	Female
State (vs. private)	0.083* [0.032]	-0.05 [0.031]	-0.029 [0.015]	0.148*** [0.038]	-0.183*** [0.043]	-0.047** [0.018]	0.087*** [0.021]	-0.229*** [0.030]
Federal (vs. private)				0.102* [0.046]	-0.094 [0.057]	-0.039 [0.023]	0.186*** [0.025]	-0.260*** [0.035]
Chi ²	825.428	193.626	3556.767	110.774	88.363	74.241	641.501	1415.579
P	0	0	0	0	0	0	0	0
States	50	50	49	49	49	48	50	50
Facilities	1093	1085	1032	1055	1040	904	1084	1081

Coefficients and state-clustered standard errors [in brackets] from multilevel models with varying operator slopes across states. All models include controls for facility security level (med or min), gender composition, prisoner population (logged), US citizen composition (except in citizenship model), and various functions. All dependent variables are on a proportion scale.

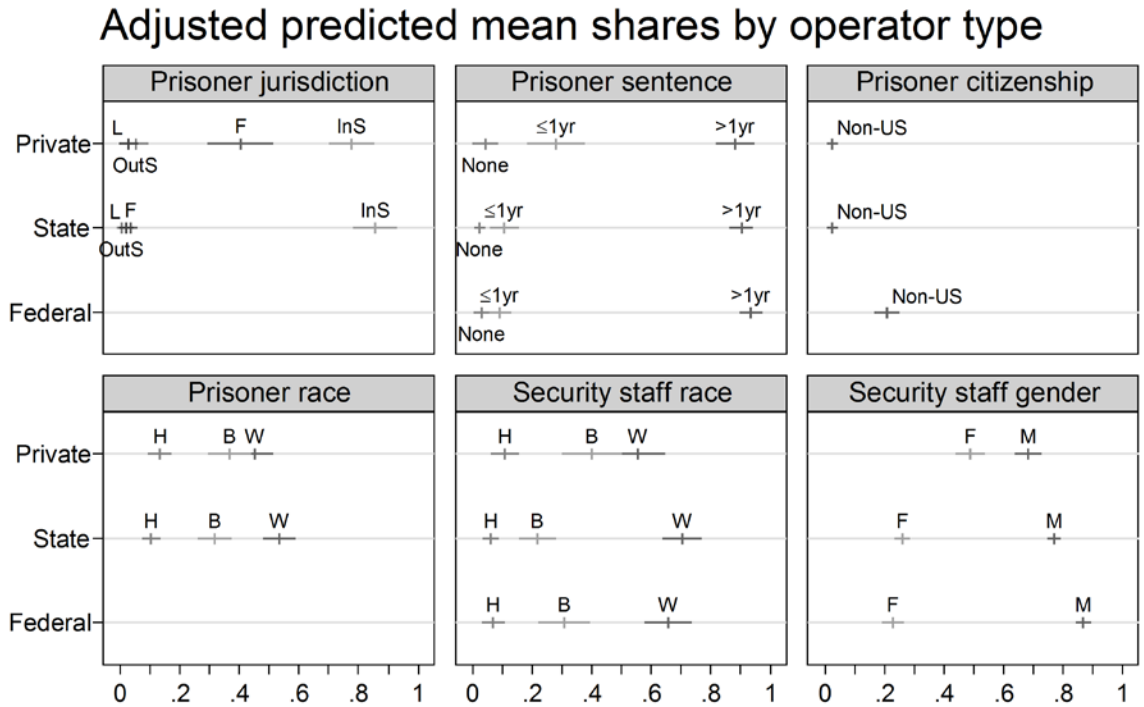
10.Figures

Figure 1: Mean shares by operator.



Vertical plots indicate mean values predicted by the mixed effects multilevel regression models. Horizontal lines indicate 95% confidence intervals. Sample includes minimum and medium security adult correctional facilities in the U.S., excluding facilities in Illinois and joint local-state ventures. Data source: BJS' *Census of State and Federal Adult Correctional Facilities*(2005).

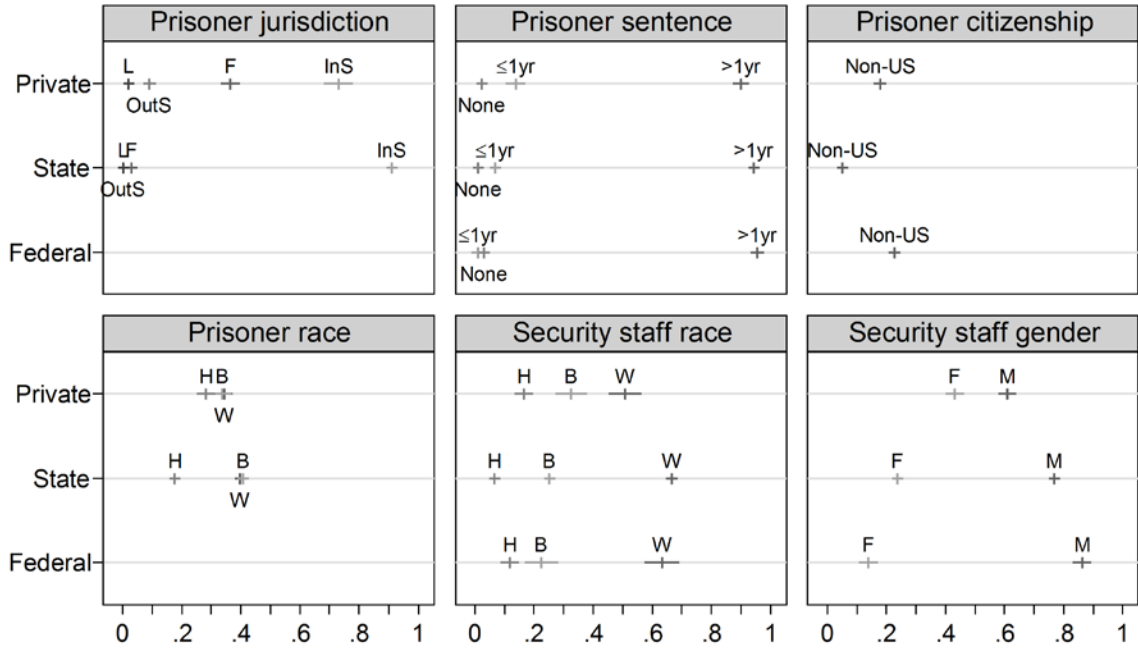
Figure 2: Adjusted predicted mean shares by operator



Vertical plots indicate mean values predicted by the mixed effects multilevel regression models. Horizontal lines indicate 95% confidence intervals. Sample includes minimum and medium security adult correctional facilities in the U.S., excluding facilities in Illinois and joint local-state ventures. Data source: BJS' *Census of State and Federal Adult Correctional Facilities(2005)*.

Figure A1: Weighted means, by sector

Weighted means, by sector



Vertical plots indicate mean values predicted by the mixed effects multilevel regression models. Horizontal lines indicate 95% confidence intervals. Sample includes minimum and medium security adult correctional facilities in the U.S., excluding facilities in Illinois and joint local-state ventures. Data source: BJS' *Census of State and Federal Adult Correctional Facilities*(2005).