



Bridging the Divide: Licensing and Recidivism

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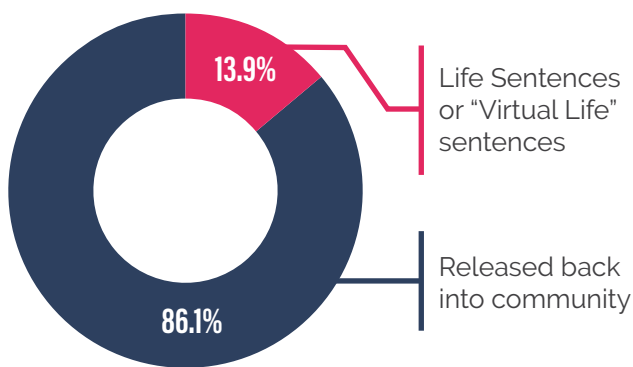
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Executive Summary

This policy brief examines the effects of occupational licensing reform on reducing recidivism—the likelihood former prisoners will re-offend and return to prison. Eighty-six percent of released prisoners are likely to re-offend within nine years of their release, with the majority re-offending within the first two years. With more than 1.5 million people in prisons nationwide, and approximately 100,000 in Florida prisons, transitioning formerly incarcerated people into the mainstream workforce and community is of vital importance.

Figure 4. U.S. Prisoners Expected to Be Released Back into the Community



Academic research has consistently demonstrated that access to a financially sustainable job combined with a supportive family environment can dramatically reduce the chances a former prisoner will re-offend. Access to a good job, however, is problematic since many employers are skeptical of hiring workers with arrest records. Moreover, many states statutorily preclude individuals with criminal records from holding jobs in specific fields through occupational licensing laws. These limits exist even when past criminal behavior is not substantively related to the job being performed.

Beyond these blanket prohibitions, occupational licensing laws often establish barriers to entry by imposing requirements greater than necessary to protect the public safety and welfare. In fact, licensing requirements can vary significantly from state to state. In many cases, regulation appears politically arbitrary. For example, interior designers are licensed in just three states (including Florida), while the rest of the states allow the private sector and consumers to regulate quality through markets. Just 11 states license medical and clinical laboratory technologists.

Licensing fees and training requirements can create barriers that are almost impossible to overcome when starting out with no income and very little formal training. For example, in Florida, a drywall installation contractor must undergo training equivalent to 1,460 days (more than five years, excluding weekends) and pay fees equivalent to one week's pay (at \$10 per hour) before they can sit for the exam. Twenty-one states do not license drywall installation contractors. Pest control applicators must complete 533 days of training (more than two years), pay fees of \$760, pass an exam, and have a high school diploma before the state will issue a license. Despite the fact 21 states do not regulate carpenter or cabinet maker contractors, Florida requires those interested in practicing this trade to rack up 1,460 days of training, pay \$364 in fees, and pass an exam before they can get a license. Florida licenses 56 occupations such as these that would be suitable re-entry jobs for those starting out on the lower- and middle-income levels.

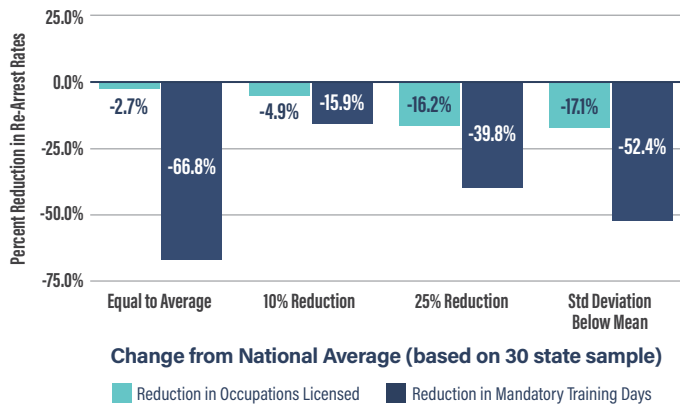
These examples, however, do not determine a pattern. An analysis of data from 30 states tested whether occupational licensing laws had a significant impact on recidivism. After controlling for the state economy, labor force participation rates, the degree of urbanization, and education levels, states that more stringently regulated entry into occupations most suited to lower- and middle-income occupations had higher re-arrest rates for former prisoners. The effect is statistically significant and robust.

Overall, lowering barriers to entry by de-regulating occupational licensing laws could have a one-for-one impact on reducing recidivism. In other words, a one percent reduction in the number of licensed occupations could reduce re-arrest rates by one percent. The effects are even stronger for reductions in the average number of training days required to obtain a license.

An application to Florida revealed that the positive impacts on re-arrest rates were even more important. A 10 percent reduction in the number of average training days would lead (statistically) to a 16 percent reduction in Florida's re-arrest rate. Reducing the average number of training days to the national average (based on the 30 state sample) could cut the re-arrest rate by more than half.

While robust, these statistical results should be considered in context. The sample size is small, and the analysis did not examine recidivism over time. Nevertheless, the conclusions are consistent with broader academic research by economists and criminologists. Occupational licensing reform may well be "low-hanging fruit" for improving the chances formerly incarcerated people can find gainful employment that is also financially sustainable.

Figure 6: Estimated Occupational Licensing Reform Impacts on Re-Arrest Rates: Florida



Introduction

Reintegrating former criminal offenders into society poses an important challenge to the United States. One academic study estimates that eight percent of American adults and one-third of African American adult men have felony convictions.¹ Ex-offenders face a wide array of restrictions in terms of legal rights, civic participation, and employment. In addition, ongoing criminal activity weakens civil institutions, including families, neighborhoods, and the economy. Finding ways to reduce criminal activity is important to strengthening the economy and communities. To the extent public policy prevents the re-integration of ex-offenders into mainstream society – including the labor market – the economy is less productive, civic culture is undermined, and citizens endure higher tax burdens to underwrite a larger than necessary criminal justice system (e.g., prisons, jails, police, courts, parole officers, etc.).

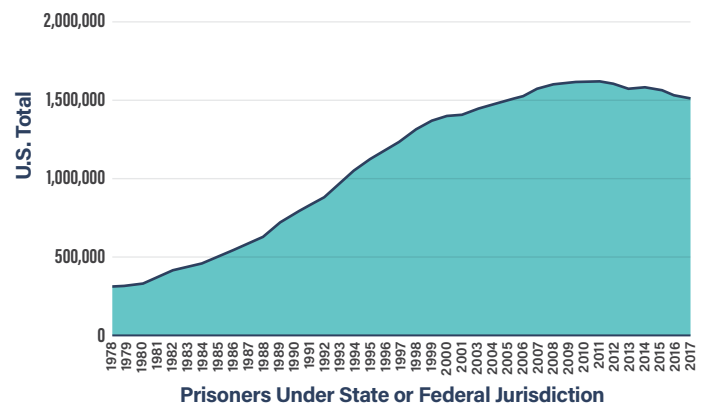
This report examines an often neglected, but potentially important, barrier to transitioning formerly incarcerated people into mainstream society and the economy: occupational licensing. In the U.S., nearly one third of all occupations now require licenses before workers can practice their profession requiring an average of nine months of training.² Florida alone licenses over 300 professions and businesses.³ Moreover, little evidence supports the effectiveness of licensing as a way to protect consumers or improve the quality of services.⁴ Thus, occupational licensing reform may be “low-hanging fruit” for criminal justice reform focused on easing the re-entry of formerly incarcerated people into the mainstream economy.

The next section of this report provides an overview of recent trends in incarceration, illustrating the rapid growth in the prison population and its social implications. The subsequent two sections discuss recidivism – the likelihood a released prisoner will re-offend – and its relationship to occupational licensing. The fourth section presents original research that examines the empirical evidence suggesting a link between recidivism and occupational licensing reform while the concluding section discusses policy implications.

Growth in US and Florida Prison Populations

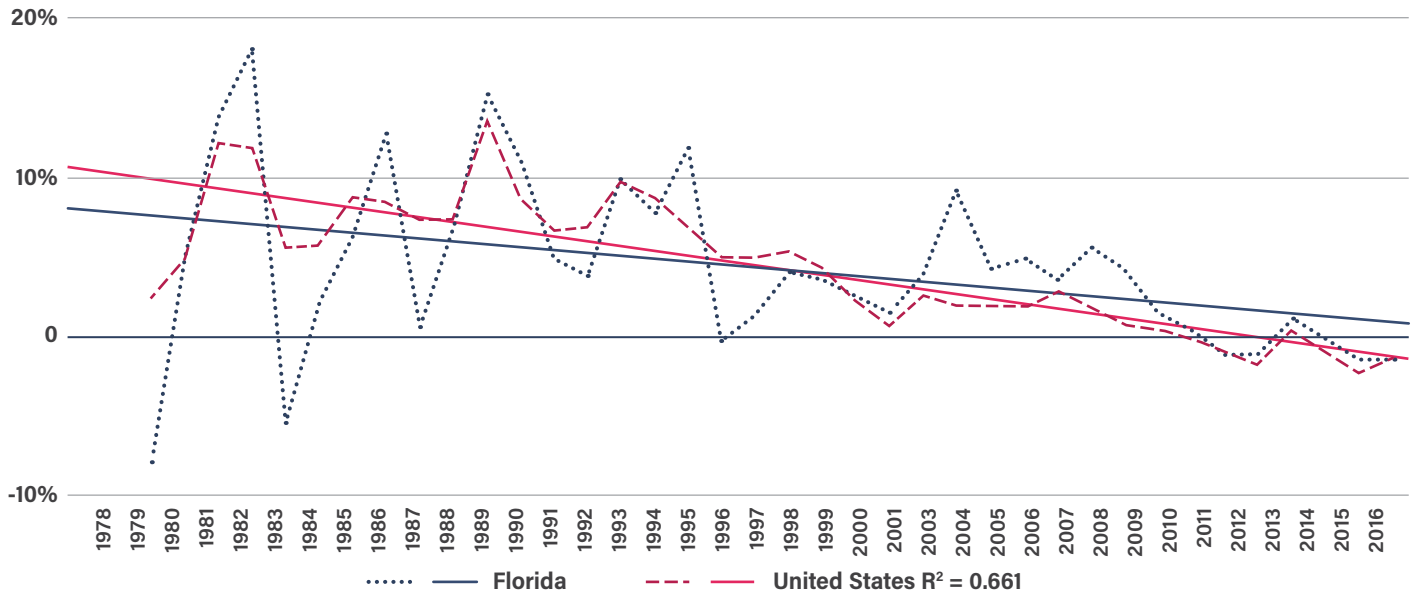
The scale of the challenge facing the U.S., and the state of Florida, is difficult to overstate. Nationally, the number of prisoners under federal and state jurisdictions has grown from just 329,821 in 1980 to 1.5 million in 2016 according to the National Prisoner Statistics Program at the U.S. Bureau of Justice Statistics (Figure 1). The most significant increases in incarceration occurred in the 1980s when prison populations grew year-to-year at or near double rates (Figure 2). The decade started out with 329,457 prisoners and ended with 773,919 in 1990, climbing to over 1 million by 1994. While federal incarceration rates leveled off after 2000, with growth rates dropping to under three percent and total population even falling after 2010, substantially higher prison populations ensure that more than 1.5 million people remain incarcerated each year.

Figure 1: Prisoners Under State or Federal Corrections Authorities



Source: US Bureau of Justice Statistics, National Prisoner Statistics Program

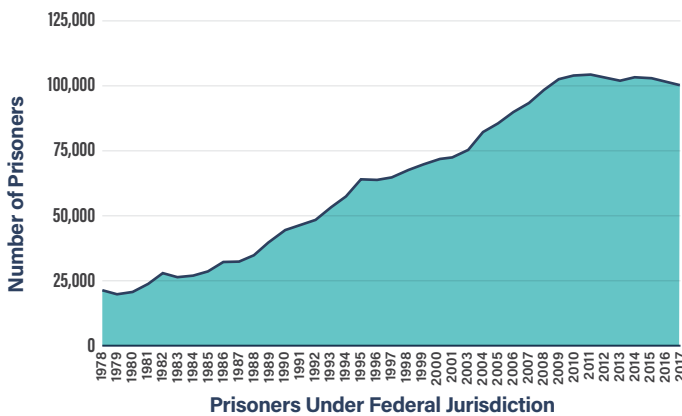
Figure 2: Annual Growth Rates in Prison Populations: U.S. versus Florida



Source: US Bureau of Justice Statistics, National Prisoner Statistics Program

Florida’s prison population has increased even more dramatically. The state’s prison population grew by five times, from just 20,735 in 1980 to more than 100,000 in 2008 (Figure 3). The state’s prison population grew by nearly 18 percent from 1981 to 1982, and double-digit rates in 1981, 1986, 1990, and 1995 (Figure 2). Moreover, as federal incarceration rates began to moderate, Florida continued to incarcerate at higher rates, sustaining high prison populations.

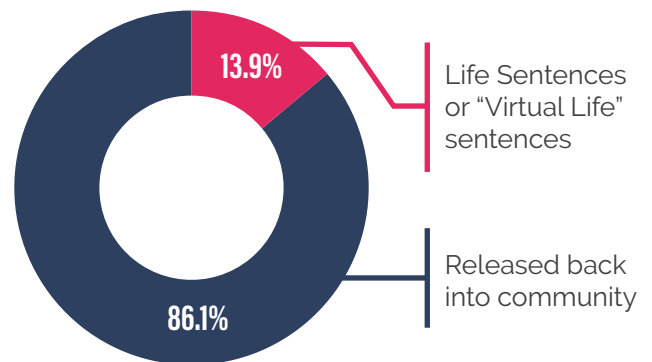
Figure 3. Prisoners Under State of Florida Jurisdiction



Source: US Bureau of Justice Statistics, National Prisoner Statistics Program

More importantly, the vast majority of these prisoners are likely to be released back into the community. Analysis by criminologist Ashley Nellis for The Sentencing Project estimates that 13.9 percent of the U.S. prison population is serving life sentences or “virtual life” sentences of 50 years or more (Figure 4).⁵ In other words, 86 percent of persons currently incarcerated in U.S. prisons will be released back into the community. Without effective ways to transition these released ex-offenders into mainstream society, as the next sections discuss, the likelihood of re-offending is high.

Figure 4. U.S. Prisoners Expected to Be Released Back into the Community



Source: Ashley Nellis, Still Life: America’s Increasing Use of Life and Long-Term Sentences, The Sentencing Project, Washington, DC, May 2017, <http://www.sentencingproject.org/publications/still-life-americas-increasing-use-life-long-term-sentences/>

Defining Recidivism

Experts examining the likelihood of re-offending define recidivism several ways. Re-arrest is the broadest definition and includes incidents where former offenders are arrested but not necessarily convicted or returned to prison. This broad definition is more likely to capture the social and institutional impacts of criminal activity with an important caveat: arrest does not necessarily imply criminal guilt or culpability. Criminal guilt would need to be established in a court of law, and the result is a conviction. Thus, re-conviction more clearly indicates a return to criminal activity. This

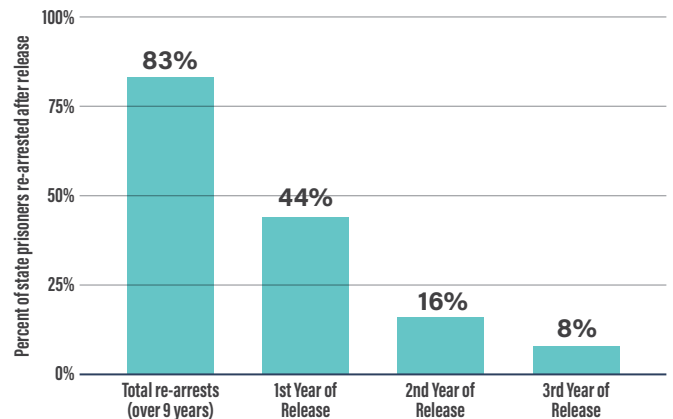
definition includes cases where former offenders are placed under parole or other similar arrangements but do not return to prison. Re-incarceration is the narrowest definition of recidivism that only includes cases where former prisoners return to prison. While severe, this narrower definition does not necessarily capture the social and economic impacts of re-offending. For the purposes of this analysis, re-arrests will be used as the primary measure of recidivism because this definition casts the broadest indicator of potential criminal activity that undermines civil institutions.

Re-Offending and Work

Among the more important barriers to re-integration may be limited access to employment and the sustainable income created from a steady job. Many firms, for example, are hesitant to hire ex-offenders, or have policies barring their employment. A recent survey of human resources professionals found that just 33 percent of managers and 37 percent of professionals said they were willing to hire individuals with a criminal record.⁶ Moreover, 32 percent of managers and 39 percent of professionals identified local, state, and federal regulations as a primary concern in their hiring decisions of ex-offenders.⁷ Entrepreneurial opportunities are also limited because ex-offenders cannot acquire loans to capitalize their businesses, and state statute often bars licensing formerly incarcerated people. Ironically, these barriers likely exacerbate the problem: numerous studies have found that ex-offenders may be more inclined to commit financially motivated crimes if they are unable to find steady, legal employment.⁸

The re-arrest rate for formerly incarcerated people is a common measure of recidivism—the likelihood a released prisoner will re-offend (see Box). Re-arrest rates, in fact, are common and significant, and are a critical element of understanding the current burdens faced by the U.S. criminal justice system. According to the U.S. Department of Justice, 83 percent of “state prisoners released in 2005 across 30 states were arrested at least once during the nine years following their release.”⁹ Re-arrests were most frequent in the first year following release and declined in frequency over the nine-year period. Forty-four percent of prisoners released in 2005 were rearrested in the year following release compared to just eight percent who were re-arrested for the first time in the third year following release. Thus, reducing the number of re-arrests could significantly lower the caseload burdening the court system as well as slow the flow of convicted offenders returning to the prison system.

Figure 5. Re-Arrests of Formerly Incarcerated Men (State Prisons)



Source: “2018 Update on Prisoner Recidivism: A 9-Year Follow-Up Period (2005-2014),” U.S. Department of Justice, Bureau of Justice Statistics, May 2018

Experts have identified several “risk factors” for re-arrest, including race, gender, age, social capital, educational attainment, and employment.¹⁰ In the U.S. Department of Justice study, white (80.9 percent) and Hispanic (81.3 percent) prisoners had lower rates of recidivism compared to black (86.9 percent) prisoners.¹¹ Re-arrest rates were also higher for men (84.2 percent) than for women (76.8 percent), although the percentages of men and women re-arrested for the first time after their first year of release were similar. Prisoners who were younger upon release were more likely to be re-arrested than prisoners who were older: nine out of ten former prisoners under 24 years old were likely to be rearrested. In contrast, just 76.5 percent of prisoners 40 years or older recidivated in the nine years following release. The differences in the percentage of prisoners rearrested for the first time in each year declined across age, gender, and race over the nine-year period (although the differences in the percentage of prisoners who had

been rearrested persisted). Clearly, enabling formerly incarcerated people to re-enter the mainstream economy and society more generally early in their post-release period is critical to reducing recidivism.

Employment opportunities are a critical component of achieving this goal. Criminologists Jeremy Travis and Christy Vishner report that only 55 percent of prison inmates had stable employment before their most recent arrest.¹² Furthermore, only about one-third of prisoners held a high school degree compared to nearly 90 percent of comparable adult men.¹³ Studies from the 1980s found periods of unemployment were associated with higher rates of criminal behavior.¹⁴ Individuals committed crimes with material rewards more often than other types of crime during periods of unemployment. Economists and sociologists now recognize that financial considerations are a primary motivator for drug traffickers and, not surprisingly, they run their enterprises like businesses.¹⁵ Similarly, economist Joshua Hall and his colleagues found that robbery, burglary, larceny, motor vehicle theft, possession/sale of stolen property, and possession/sale of illegal weapons are among the categories of crime associated with the highest rates of recidivism and argued that these crimes are generally financially motivated.¹⁶ Financial motivations for reoffending, they suggest, might indicate that institutional problems face former offenders that hinder employment after release.¹⁷

Mark Berg and Beth Huebner also found that marital status and social ties affect recidivism indirectly through their influence on employment.¹⁸ They argue that prisoners with higher levels of social capital can leverage their familial ties to find employment, and the effects are statistically significant. This effect persists even when considering employment history prior to imprisonment. Men with stable employment prior to incarceration were 92 percent more likely to be employed following release than men who did not have stable employment. Among men with poor employment histories, however, those with strong family ties had a 54 percent predicted probability of finding employment post-release (although this is still higher than just 35 percent for those with weak family ties). Among men with stable employment histories prior to prison, their probability of finding employment was 78 percent if they had strong family ties and just 61 percent for those with weak family ties.

More importantly, Berg and Huebner found that post-release employment was significantly, negatively related to recidivism. Men who found stable employment were less likely to recidivate. Among men who did recidivate, those who were employed went longer without re-arrest. Six hundred days post release, 42 percent of employed offenders had not recidivated compared to just 24 percent of unemployed offenders.

These results are consistent with those of Christy Visher and her colleagues who studied prisoners released from prisons in Illinois,

Ohio, and Texas.¹⁹ Examining the post-release experiences of 740 men, they found recidivism was lower when former prisoners were connected to employers before release and were released into supportive and conventional family arrangements.

The research appears clear: policies that complicate or create unnecessary burdens for connecting formerly incarcerated people to employment increase the risk and likelihood people will re-enter the criminal justice system. A critical component of addressing recidivism is creating policies that support ex-offenders' attempts to put themselves on a "life-course" away from criminal activity.²⁰ From a public policy perspective, policies that erect barriers to reintegration into society may impede this change in life course. Occupational licensing is one example of such a barrier to entry into the labor market that may have disproportionately negative effects on formerly incarcerated individuals.

Occupational Licensing and Recidivism

An occupational license is essentially a stamp of approval from federal, state, or local governments to work in a particular job. Training, examinations, and fees are typical requirements for attaining an occupational license. Licensing policies have been justified by the need to protect consumers and ensure high quality services, but they also create barriers to entry into licensed occupations. Indeed, economists have long been critical of occupational licensing laws because their primary effect appears to be to restrict entry and drive up the cost of services, not improve service quality. In fact, occupational licensing may contribute to wage inequality among occupations.²¹

Many labor market policies restrict former felons or other ex-offenders from obtaining licenses through considerations of character and discretionary licensing.²² The ambiguity of many licensing policies leaves determinations of a candidate's character at the discretion of state licensing boards. According to attorney Annie Zhang, 841 licensing policies across the United States allow ex-offenders to be denied solely on the basis of their past criminal behavior, and 1,814 require good moral character.²³ Very few states do not allow for consideration of arrests or convictions in licensing decisions. Even policies that do not place outright bans on former offenders may impose disproportionate burdens on ex-offenders and low-income individuals through fees, exams, and training requirements. For these reasons, a higher prevalence of occupational licensing policies may be associated with higher rates of recidivism.

The number of occupations requiring a license and the share of licensed workers have expanded dramatically over the past 50 years. A 2015 paper published by the Obama Administration indicated that over 25 percent of workers now require a license to perform in their occupations compared to less than five percent

in the 1950s.²⁴ Most of this growth, roughly two thirds, has been attributable to an increase in the number of licensed occupations rather than changes in labor-force composition.²⁵

Moreover, individual states license at different rates and thresholds and in ways that do not clearly connect to determining competency, skill, or protecting the public. Florida licenses many occupations not widely licensed in other states which suggests that those licenses are not necessary for public safety. For example, Florida licenses residential drywall installation contractors even though 21 other states do not.²⁶ The requirements to obtain a license in Florida are also more burdensome than in most states. Aspiring drywall contractors must pay for 1,460 days (more than five years) of training and \$364 dollars in fees (about one week of wages at \$10 per hour), and then take two exams. Among states that do issue licenses for drywall installers, Florida has the fourth most burdensome requirements. Carpenter and cabinet-maker contractors incur similar costs. Pest control applicators must spend 533 days in training—nearly two years—pay \$760 in fees, pass an exam, and have a high school diploma before they can start building their business. Licenses in Florida require an average of 693 days of education and training compared to the national average of 376. Moreover, several occupations require renewal fees and continuing education, which are not accounted for in this data.

Beyond the burden of training, exams, and fees, some licensing policies directly prohibit the licensure of former offenders. Many occupations that could reasonably be performed by former offenders require criminal background checks for licensure in Florida, according to the Kneer Center for Occupation Regulation at St. Francis University. These regulations can present insurmountable barriers to employment for individuals with criminal records even if the other licensing requirements are not excessive. For example, the training and education requirements for barbers, cosmetologists, and EMTs in Florida are near or below average, but each of these occupations requires a criminal background check.

The effect of occupational licensing policies is to limit the supply of workers in labor markets. Economists have identified at least three types of labor market restrictions that licensing imposes on low-income populations.²⁷ First, licensing professional, high-skilled occupations tends to crowd workers into lower-skilled occupations, lowering wages and thus weakening work incentives. Second, quantity restrictions on licenses, such as permits that set quotas limiting the overall number of suppliers in a market, suppress demand for low-skilled workers and may substantially reduce work opportunities. Third, quality restrictions impose entry costs into professions. These restrictions are usually through educational requirements that supersede the market.

Unfortunately, much of the research on the impacts of occupational licensing on the labor market is not definitive. A significant

problem limiting the extent of empirical research on the effects of occupational licensing on labor markets is the availability of data. An analysis by economists Morris Kleiner and Alan B. Krueger using data from a telephone survey conducted by Westat indicated that occupational licensure was associated with a wage premium of approximately 18 percent.²⁸ The survey was nationally representative but lacked sufficient data to be representative at the state level.

Interestingly, Kleiner and Krueger found that licenses issued at the state and federal levels were associated with higher wage premiums than licenses issued locally, suggesting greater market distortions. They argued that state and federal licenses more effectively restrict competition and reduce the supply of labor in regulated areas. This finding suggests that licensing policies serve as barriers to entry into licensed occupations, and these policies have substantial impacts based on race or gender. Kleiner and his colleague Evgeny Vorotnikov used an online workforce survey to further investigate the wage effects of occupational licensing and found that licensure was associated with an approximate 11 percent wage premium.²⁹

While this effect was lower than the premium found by Kleiner and Krueger, the second study found larger differences in impacts across race, gender, and levels of education. Kleiner and Vorotnikov found that about 23.9 percent of men require a license compared to about 19.4 percent of women. More Hispanic (23.2 percent) respondents had a license than white (21.8 percent) or black (19.4 percent) respondents. Seventy-five percent of respondents answered that their license required a high school education compared to 47.7 percent for a college education.³⁰

Taken together, the results support economic theory that suggests occupational licensing policies enhance the wages of licensed workers by limiting the supply of labor in regulated occupations. The requirements of licensing policies such as fees, exams, and minimum levels of education may act as particularly burdensome barriers to entry for ex-offenders and low-income individuals. Moreover, the supply-limiting effects of licensure in labor markets may force workers into lower-skilled occupations making employment more competitive and reducing employment opportunities for ex-offenders. With more limited access to higher wage employment, ex-offenders are at greater risk of re-offending.

Labor Market Freedom and Crime

Access to stable employment with livable wages is important to reducing recidivism, and a robust local economy and labor market are critical elements of achieving this objective. Labor markets that are less flexible and nimble are less likely to produce the robust job market that provides marginalized populations such as ex-offenders access to these jobs. Economists Joshua Hall, Kaitlyn Harger and Dean Stansel looked at labor market freedom, a

subcomponent of the widely cited Economic Freedom of North America index (EFNA), to analyze recidivism rates across states.³¹ They found that states with lower labor market freedom had higher rates of recidivism. EFNA includes measures of union density, minimum wage legislation, and the share of workers employed by the government, but does not include a measure of occupational licensing. Nevertheless, their analysis strongly suggests that barriers to entry into the labor market are associated with higher rates of recidivism.

In a separate study focusing on crime rather than recidivism, economists Thomas Snyder and Saliou N. Ouattara found a positive relationship between occupational licensing requirements and property crime rates.³² Their analysis also found a negative relationship between licensing requirements and labor-force participation. In other words, more burdensome occupational licensing policies reduced labor-force participation. Moreover, they found licensing requirements increase property crime rates through their effect on labor-force participation. This finding is consistent with the idea that occupational licensure restricts labor market entry and in turn incentivizes a return to criminal behavior. Thus, licensing policies that reduce labor-force participation by former offenders may encourage them to reoffend and therefore increase rates of recidivism.

Re-Arrests and Occupational Licensing

To further explore this relationship, the remainder of this analysis examines re-arrest rates and occupational licensure for lower- and middle-income occupations at the state level. Unfortunately, data on re-arrest rates, the broadest definition of recidivism, are only available for 30 states. Nevertheless, regression analysis was used to examine the statistical link between occupational licensing and recidivism while controlling for other factors identified in the academic literature. In theory and based on the best available evidence, licensing policies should reduce employment opportunities directly through restrictions such as character considerations and indirectly through burdensome requirements to obtain licenses such as fees and mandated formal educational requirements. The more burdensome the licensing laws, the less likely marginalized populations will have access to jobs that will provide stable employment and income, and the more likely they will return to criminal behavior.

A principle benefit of multiple regression analysis is its ability to statistically consider the effects of several factors that influence recidivism. The principal focus of this section is on the restrictiveness of the labor market. For example, states that license more occupations and require more burdensome training requirements are likely to reduce the employment pathways for marginalized populations, including those convicted of crimes and formerly in-

carcerated individuals. In addition, labor force participation rates provide an indicator of the willingness of the work force to look for and obtain jobs, and these rates might vary by state. Similarly, the presence of police and other elements of law enforcement might affect the likelihood someone will re-offend. Other variables included in the analysis to control for non-licensing factors included the degree to which a state was urbanized, the value of a state's economic output, and the share of the population without a high school diploma. The statistical model also included an interaction term for the number of occupations licensed and the number of training days to check to see if the relationship between these variables had non-linear effects and whether they might be related to each other. In other words, since these two variables are determined by the state political process, their combined impact could be significantly greater than their impact as independent, separate variables.

Table 1 presents the list of variables used to analyze re-arrest rates across states, their predicted impact, and if they were statistically significant in the analysis. A more complete discussion of the results of the statistical analysis is included in an Appendix, including a detailed discussion of the methodology used to assess the impacts. In short, the analysis found that an increase in the number of lower- and middle-income occupations licensed in a state, and an increase in the average number of days of education required to obtain those licenses, significantly increased recidivism as measured by the average number of re-arrests per prisoner released in that state. These effects are robust across several model specifications and the inclusion of different variables, albeit with a few important caveats and qualifications explained below.

The magnitude of the impact of occupational licensing policies on re-arrest rates is significant and meaningful. Overall, a 10 percent reduction in the average number of occupations licensed, reducing the number from 56 to 50, would reduce re-arrest rates from 2.32 on average to 2.08 (or about 10 percent). The effect of a 10 percent reduction in the average number of training days is even more significant, reducing average re-arrest rates to 2.02, or 12.7 percent. Reducing burdensome licensing requirements could have nearly one-for-one benefit based on national averages derived from the sample of 30 states with reported re-arrest rates.

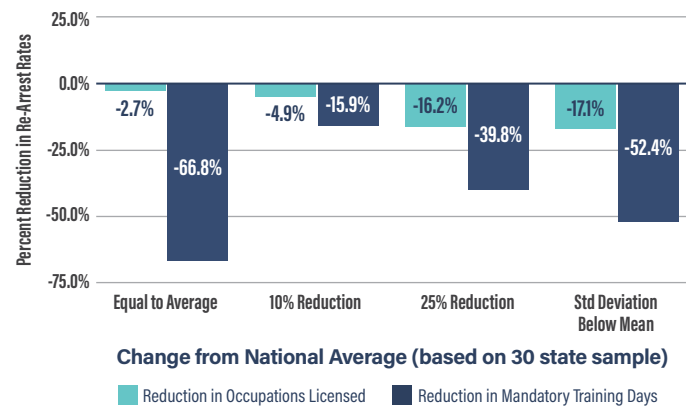
The effects for specific states can be more significant than for the nation as a whole. Florida, for example, has one of the most highly regulated labor markets in the nation, particularly for low-wage, low-skilled occupations. While the state licenses about the same number of occupations (56) as the national average (54), the number of training days it requires to qualify for a license is significantly higher (about 40 percent). If Florida reduced the number of occupations it licensed to the national average (from the sample), the state's re-arrest rate would fall by about three percent (Figure 6). If the state reduced the number of occupations licensed by 10

Table 1. General Summary of Impacts on Re-Arrest Rates

Variable name	Regression Variable Name	Impact on recidivism	Impact statistically significant?
Average number of times a formerly incarcerated person is re-arrested over nine years following release	Re-arrests Dependent Variable	N/AP	N/AP
Number of occupations licensed in each state	NUMBER	+	Yes
Average number of days of education and training required to obtain a license in each state	AvgDays	+	Yes
Interaction of Number and AvgDays	Number*AvgDays	-	Yes
Percent of population living in urban areas	Urban	+	Yes
Law enforcement employees per 10,000 residents in each state	Law Enforcement	-	Yes
Labor force participation rate in each state	Labor Force	+	No
Natural log of the Gross State Product per person in each state	IGSP Per Capita	-	No
Share of the population between 18 and 24 without a high school diploma	No Diploma	+	No

percent – deregulating about five occupations – Florida’s re-arrest rate for formerly incarcerated persons could fall by 4.9 percent. If the state reduced the occupations it licensed by 25 percent, the statistical model suggests re-arrest rates would fall by about 16 percent.

Figure 6: Estimated Occupational Licensing Reform Impacts on Re-Arrest Rates: Florida



The effects are potentially more dramatic if Florida reduced the average number of training days required to obtain a license. Statistically, a 10 percent reduction in the number of training days would reduce Florida’s re-arrest rates by nearly 16 percent. A 25

percent reduction would reduce re-arrests by nearly 40 percent. Re-arrest rates could potentially fall by 50 percent or more by reducing training requirements by one standard deviation below the national mean (for the 30-state sample) and by perhaps as much as two-thirds by bringing Florida’s requirements in alignment with national averages. This policy reform would be in keeping with most academic research that suggests reducing training days does not impact the quality of service provided, therefore the benefits to employment for formerly incarcerated inmates could be even greater.

These estimates should be considered with a number of qualifications and caveats. First, the sample size, just 30 states, is relatively small. While the maximum number of observations is 50, the results could be sensitive to adding more states to the database. A comparison of the means for the 50 states compared to the sample suggests these differences are relatively minor (see Appendix Table A4). Law enforcement per capita, for example, is 31.49 for the 30-state sample versus 31.44 for the average for the nation. Differences between the sample and national averages are similarly small for labor force participation rates and college education. The sample tends to be weighted toward states with higher GSP per capita (\$43,894 versus \$43,361) and more urban states (75.3 percent versus 72.7 percent). The sample also tended to have higher average days for mandatory training (402.5 versus 375.94) and a larger number of occupations licensed (56.9 versus 54).

Second, the regressions explain about 40 percent of the vari-

ation in state re-arrest rates (Appendix Table A3). In practical terms, this result suggests that many other factors also contribute to understanding re-arrest rates. The statistical model, for example, did not include a control for family structure or support, or the characteristics of the neighborhood into which prisoners are released.

Nevertheless, the influence and effect of the occupational licensing components are robust and consistent, and the model becomes more powerful (statistically) as other factors are included. For example, in a simple test on the correlation between the licensing variables and re-arrest rates (Appendix Table A3), the licensing variables account for just 14 percent of the change in re-arrests, and the number of occupations licensed is not statistically significant. Once the model is more fully specified, all three licensing variables are statistically significant.

Conclusions and Policy Implications

The high rate of recidivism among prisoners in the United States raises a public policy concern. The literature has identified a number of risk factors for recidivism. At the individual level race, age, gender, social capital, education, and employment are considered to be strongly related to a prisoner’s likelihood of being rearrested following release from prison. Among these, employment may be the most readily remedied from a public policy perspective. A recent survey of managers and human resources professionals suggests that employers are somewhat willing to hire formerly incarcerated people, but local, state, and federal regulations act as a deterrent.³³ Occupational licensure is one form of labor market regulation that may act as a barrier to employment for formerly incarcerated people. Discretionary licensing policies and character considerations are especially prohibitive to individuals with criminal records, but fees, exams, and required training also restrict license attainment.

The research in this analysis suggests that the number of occupations licensed and the average number of days required to obtain a license are positively related to recidivism even when the effects of education, labor force participation, and population density are considered. Aspects of occupational licensing requirements are found to be robustly related to recidivism across a variety of model specifications. These results are consistent with academic research on this topic.

Future research should consider developing measures of licensure that incorporate the burdens of licensing requirements. Further analysis focusing on policies that specifically bar individuals with criminal records from obtaining licenses would be helpful toward providing guidance to policymakers. However, given research showing licensing requirements reduce the ability

of formerly incarcerated people to re-enter the workforce, policymakers should consider occupational licensing reform as part of broader criminal justice reform. In attempting to address the problem of recidivism, policies that restrict employment opportunities for formerly incarcerated people without a clear need to protect consumers should be avoided.

More broadly, given the lack of substantial evidence that licensing protects consumers or the general public at large, legislators and local officials should consider reducing or eliminating excessive occupational licensing requirements. These reforms would improve the transition of formerly incarcerated individuals into mainstream society and communities by creating a pathway toward stable and financially sustainable employment.

Appendix Data, Methodology, and Regression Detail

The Bureau for Justice Statistics provides data on recidivism for 30 states. As a measure of recidivism rates, the number of prisoners released in 2005 is compared to the number of re-arrests over the following nine-year period. The number of re-arrests is divided by the number of released prisoners to produce the dependent variable, Re-Arrest, which approximates the average number of re-arrests per released prisoner in each state. A summary of variables tested empirically is displayed in Table A1, and their summary statistics are provided in Table A2.

Table A1. Summary of Variables

Variable	Definition
Number	Number of occupations licensed in each state
AvgDays	Average number of days of education and training required to obtain a license in each state
Number*AvgDays	Interaction of Number and AvgDays
IGSPpc	Natural log of the Gross State Product in each state
Labor Force	Labor force participation rate in each state
Law Enforcement	Law enforcement employees per 10,000 residents in each state
Urban	Percent of population living in urban areas
No Diploma	Share of the population between 18 and 24 without a high school diploma

Table A2. Summary Statistics

Variable	Mean	Std. Dev.	Min	Max
Re-arrest	2.32278	0.64426	1.49140	3.67620
Number	56.8667	14.7665	32.0000	77.0000
AvgDays	402.500	227.942	117.000	988.000
IGSPpc	43894.2	6590.21	30060.0	61981.2
Labor Force	76.2033	3.41724	66.7000	82.4000
Law Enforcement	31.4879	6.42120	20.9375	47.8910
Urban	75.3358	13.0575	47.4032	94.7102
No Diploma	18.8133	3.58490	8.30000	25.2000

The Institute for Justice (IJ) has compiled a database of lower- and middle-income occupations requiring a license across all 50 states. The IJ dataset also includes the average fees, average number of days of training, and average number of exams required to obtain a license in each state. The number of licensed occupations and the average requirements indicate the breadth and burden of licensure. Of the requirements, the average number of days of training is perhaps the most burdensome. Consequently, the number of occupations licensed and the average number of days of required training are used as measures of occupational licensing.

$$\begin{aligned}
 \text{Recidivism(Re-arrest)} = & \beta_0 + \beta_1 (\text{Number}) + \beta_2 (\text{AvgDays}) \\
 & + \beta_3 (\text{Number} * \text{AvgDays}) + \beta_4 (\text{Urban}) + \beta_5 (\text{Law Enforcement}) \\
 & + \beta_6 (\text{Labor Force}) + \beta_7 (\text{LogGSPpercapita}) + \beta_8 (\text{No Diploma}) + \epsilon
 \end{aligned}$$

State-level factors outside of licensing policies are expected to be related to recidivism rates. Economic factors including labor force participation and gross state product (GSP) per capita may also be related to the availability of employment for former prisoners and the financial motivation to reoffend. Licensure is one indicator of labor market openness, but other economic policies may also be relevant to the ability of formerly incarcerated people to find employment.

The labor force participation rate is the ratio of the labor force—which is the sum of employed and unemployed workers—over the population of each state. Higher labor force participation rates may also indicate greater availability of employment opportunities, especially for lower-skilled workers. States with higher labor force participation rates are expected to have lower recidivism rates. GSP per capita is a measure of the total size of the economy in a state. States with smaller and less robust economies—those with lower GSP per capita—are expected to have higher rates of recidivism.

Non-economic characteristics of states including urbanization and allocation of resources to law enforcement may also be related to recidivism rates. Since urban areas typically have higher crime rates, the models control for the percentage of state populations living in urban areas (Urban). The number of law enforcement employees per 10,000 residents (Law Enforcement) could be positively or negatively related to recidivism rates. More law enforcement employees may increase the probability of criminals being caught and thereby increase the recidivism rate. However, a higher probability of being caught may serve as a deterrent to would-be reoffenders.

Demographic factors that are significant at the individual level including educational attainment may have implications for recidivism at the state level. Education is a significant determinate of formerly incarcerated people’s probability of recidivating. Those with higher levels of education are more likely to find employment after release which reduces the financial motivation for reoffending. The variable No Diploma is the share of each state’s population without a high school diploma. If a higher share of the population lacks a high school education, recidivism rates are expected to be higher. Formerly incarcerated people may have a harder time finding jobs if there is more competition in low-skill occupations. All control variables were gathered for 2005, the year the prisoner cohort for the BJS recidivism study was released.

The final SAS-generated OLS estimates are displayed in Table A3. The dependent variable in each column is the average number of re-arrests per released prisoner over between 2005 and 2014. Column (1) displays the estimated effects of the number of licensed occupations and the average number of days of training required to obtain a license. The Adjusted R-Square suggests that these two variables alone explain about 14 percent of the variation in recidivism across states.

Finally, given the relatively small and limited sample size (30 states), Table A4 compares the sample of 30 states to the national average for each variable. As mentioned above, the sample was created based on the availability of re-arrest data for each state. The states in the sample, on average, license a higher number of lower- and middle-income jobs and require a higher number of training days. These states also tend to be more urbanized. The two groups are remarkably similar in the number of law enforcement officers per 10,000 residents, labor force participation rates, size of state economies, and the percentage of the population without a high school diploma.

TABLE A4: COMPARISON OF SAMPLE MEAN TO NATIONAL MEAN

Variable	Sample Mean (N=30)	National Mean (N=51)
Number	56.87	54.00
AvgDays	402.5	375.94
Urban	75.34	72.69
Law Enforcement	31.49	31.44
Labor Force	76.20	76.41
GSP per capita	43894.20	43361.08
No Diploma	18.81	18.85

Table A3. Recidivism and Occupational Licensing Requirements

	1	2	3	4
Intercept	1.52648***	1.94326***	-1.62702	-2.75527
Number	0.00609		0.03655*	0.04307**
AvgDays	0.00112**		0.00621*	0.00733**
Number*AvgDays		0.00001605**	-0.00008673*	-0.00010285*
Urban			0.03152***	0.03494**
Law Enforcement			-0.03031*	-0.03845**
Labor Force				0.02628
IGSP Per Capita				-0.21713
No Diploma				0.05340
Obs.	30	30	30	30
R2	.2015	.1844	.4989	.5614
Adjusted R2	.1423	.1552	.3945	.3943
F-Statistic	3.41**	6.33**	4.78***	3.36**

Note: *10% significance level, **5% significance level, ***1% significance level.

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