NAVIGATING THE FUTURE OF CORRECTIONS:

A strategic approach to understanding and responding to prison closures and their effect on the standing workforce and local communities

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Roland Zullo, Director
Center for Labor and Community Studies
University of Michigan – Dearborn

Don Grimes, Senior Research Specialist
Research Seminar in Quantitative Economics
University of Michigan – Ann Arbor

Michelle Lishin, Graduate Research Assistant
Criminology and Criminal Justice Studies
University of Michigan – Dearborn

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Executive Summary

Criminal justice in the U.S. is at an inflection point. Inmate populations are in decline due to lower crime rates and a state retreat from the "tough on crime" policies that began in the 1970s. Consequently, prisons are being shuttered and prison personnel are facing the threat of layoff. The intent of this report is to present analyses to assist stakeholders in managing this contracting sector of the economy. The context is Michigan, however many conclusions can be broadly generalized to other states.

The first section of the report traces Michigan's inmate population growth beginning in the late 1970s and extending through the first years of the new millennium. During the early rapid growth period the prison capacity was insufficient, requiring the Michigan Department of Corrections (MDOC) to erect temporary housing and construct permanent facilities. The "capacity crisis" ended around the mid-1990s when the design capacity caught up with the inmate population. Since then, the MDOC has maintained an inmate to design capacity ratio in the range of 1.0 to 0.95. A trend analysis indicates that facility closures are observable when this ratio falls at or below 0.95.

Unlike facility space, personnel hiring has not kept pace with inmate population growth. The inmate to officer ratio was about 4 to 1 in the mid-1980s, and it is now 6.6 to 1. The per capita reduction of officers has not been offset with an increase in non-officer staff. The inmate to employee (i.e. officers plus other staff) ratio has increased from 2.5 to 1 to 4.1 to 1; an identical increase when considering just the officers. Implications for the mission of custody, security and rehabilitation, along with issues like personnel and inmate safety and worker stress, deserve attention.

The second section assesses the economic contribution of the MDOC system on local economies as measured by jobs and personal income. Using an advanced input-out model, two analyses are performed. First, an economic effect is estimated for each Michigan county. Unsurprisingly, counties that are home to MDOC prison facilities are the prime beneficiaries of MDOC spending. Of these, the rural counties tend to be the most reliant on MDOC for both jobs and income. In terms of economic dependency, the top five Michigan counties are: Luce, Baraga, Alger, Chippewa and Ionia.

A related analysis ranks each facility in terms of its economic contribution to the region, where region is defined as a four-county area. This second analysis assessed each facility in terms of jobs, income and population. Larger facilities make a greater contribution to a region, and once again, those facilities situated in rural counties have a comparably larger role in the regional economy.

The third and final section of the report involved a survey of states that had experienced a decline in inmate populations to determine what policies were responsible, and how these policies have affected the occupational composition of the criminal justice system. The intent was to understand major policy trends that might threaten officer employment and discover potential career pathways for personnel displaced through facility closures.

Five policy areas were identified: local and state realignment, reentry programming, bail reform, problem-solving courts and technology. Each policy can independently affect the size of the state inmate population or demand for officers. Local and state realignment entails shifting the custody, security and rehabilitation responsibility from state prisons to

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local municipal jails. Reentry programming aims to minimize recidivism. Bail reform creates excess capacity at local jails, which in turn can be used to supplement state prison capacity. Problem-solving courts direct qualified offenders to treatment, for issues like drug and alcohol addiction, as an alternative to incarceration. And technology potentially reduces the level of facility staffing through modern methods of surveillance and control.

While these policies may threaten the job security of officers, they might also present opportunities within the prison environment and in the broader criminal justice system. For instance, reducing recidivism through a comprehensive reentry program will likely create a demand for educators, vocational trainers, councilors, social workers, and so forth, both within the prison and with external service providers. This report identifies occupations that are likely to grow due to the aforementioned policies. Given their understanding of inmates and knowledge of prison protocol, corrections officers that are trained in these emergent areas should be highly qualified candidates for these jobs.

A well-designed education and placement program can prepare officers for new roles, and facilitate the transition of displaced workers into other areas of the larger criminal justice system. State subsidies for officers to encourage the pursuit of supplementary education, coupled with referral assistance or transfer rights, can serve all stakeholders. Officers benefit from the opportunity for career growth; the employer benefits from a better trained and productive workforce; inmates are served by a more professional staff, and the criminal justice system as a whole is enhanced by creating a pool of talent that can be deployed for any future policy adjustment or contingency.

In sum, criminal justice systems across the U.S. states are evolving by moving away from incarceration as a solution to crime. These policy changes, should they progress, will result in prison facility closures and layoffs for prison personnel. In Michigan, a major facility was closed in 2016, two others in 2018, and another closure announcement was made in August, 2018; all due to declining inmate populations. Ethics holds that because the states were responsible for the rapid expansion of this sector, the states also have an obligation to the career personnel and communities negatively affected by the sectoral decline. It is our hope that this report serves as a useful resource for stakeholders that want to anticipate the effects of these policies, and mitigate against any negative repercussions for communities and employees.

Background

According to federal statistics, state-run correctional institutions employed an estimated 446,589 persons nationwide in 2007. In 2017, this sector employed 401,185 persons, for a decline of 10.2 percent over the decade. Narrowing the focus to Michigan, corrections employed 13,878 persons in 2007 compared with 11,332 in 2017, for a decline of 18.3 percent.[1] These employment figures suggest that the corrections industry is contracting, nationally and regionally.

These trends are in part due to a decline in crime. FBI sources estimate that violent crime in Michigan peaked in 1991 at 75,232 incidents. In 2014, violent crime in Michigan involved 42,348 incidents.[2] Property crime follows a similar pattern, with incident frequency rising during the 1970s and into the late 1980s, then declining from the mid-1990s to present. Less crime means fewer inmates, which translates into fewer prison personnel.

Other factors contribute to the shrinking of this sector. Prominent among them is the changing approach to crime. Industry policy-makers are reaching a consensus that the "tough on crime" era that began in the early 1970s was excessively punitive, costly, and ineffective at addressing the causes of some types of crime. Numerous states have passed law that fully or partially decriminalized certain non-violent behavior, such as illicit drug use. Indeed, a quiet revolution is taking place in the area of drug-related crime, where monitored, professional intervention is increasingly viewed as a preferred alternative to incarceration. Tough on crime policies that originated in the 1970s exploded the prison population; contemporary public attitudes and professional opinions are clearly moving in the opposite direction (Russo, Drake, Shaffer and Jackson, 2017).

Conceptually, the inflow of inmates into the prison system is declining because of fewer committed offenses, more lenient sentencing, the rise of problem-solving courts, and efforts to reduce recidivism through training and vocational skill upgrading. Meanwhile, inmate outflow (i.e. ex-offender release into society) is accelerating as cases adjudicated during the harsher sentencing era are reexamined and as parole requirements are made less stringent (King, 2007). Viewed as a bundle of policies, the underlying theme is a retreat from incarceration as the first and long-term answer to anti-social behavior.

At the center of this seismic shift are employees of prison systems. As employers, prisons are insular communities that rely on an eclectic pool of talent to achieve the mission of custody, security and rehabilitation. While wardens and officers comprise roughly half of prison staff, numerous other occupations, including physical and mental

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[1] Quarterly Census of Employment and Wages (QCEW) for NAICS 922140. https://www.bls.gov/cew/. Some of the decline in Michigan can be attributed to the privatization of certain functions, like food service.

[2] Uniform Crime Reports. 2014 was the most recent year reported at the time of this report. https://www.bjs.gov/ucrdata/index.cfm

healthcare professionals, food service and commissary managers, maintenance staff, educators, social workers, and so forth, are essential to a functioning prison community.

On average these are middle class jobs. Nationwide, the estimated annual pay in state corrections in 2017 was $52,859. In Michigan, the pay in 2017 was above the national average at $58,607.[3] And one can assume that most of these state government positions come with pension and health care benefits. Employees of the Michigan Department of Corrections (MDOC) enjoy a defined contribution pension plan and health insurance, including post-retirement coverage. Consequently, a contracting industry means the loss of gainful employment for individuals and families and economic stress on communities that rely on corrections spending.

This report is meant to inform stakeholders that want to minimize the regional impact of downsizing and facility closures as well as assist dislocated workers in the transition into career-related occupations. Criminal justice is a public service whose composition and size are determined by elected and appointed public officials. Changes taking place in state and federal criminal justice systems have implications for all involved, including career personnel and the communities where they reside. Responsible action by policy makers to advance programs and make strategic decisions that attempt to minimize the social disruption caused by industry dislocation is warranted. Our analysis concentrates on Michigan, but the methods and findings should be relevant for other contexts.

Report Sections

There are three main sections to this report. Section 1 explores the relationship between the changing size of the Michigan inmate population and Michigan Department of Corrections (MDOC) decisions about facilities and staffing. Using annual data, we estimate the relationship between capacity utilization and the likelihood of a facility closure. Further, we conduct a longitudinal analysis that estimates MDOC staffing after adjusting for year, facility security level, and unmeasured facility traits. Our objective is to establish a guideline for predicting any future facility closure, and to trace how the custody role for officers has intensified over time.

Section 2 estimates the economic contribution of MDOC's prisons as measured by jobs and income. Two analyses are presented. The first estimates the economic impact of all Michigan prisons on each Michigan county. The second analysis estimates the economic impact of each facility on the facility home county and the three most impacted counties in the region. Our objective is to provide an analysis that will aid policy makers and industry leaders in any future closure decisions.

Section 3 describes policies that are presently affecting the criminal justice system, and the likelihood that these changes will affect the demand for professions in the criminal justice system. Our objective is to identify promising areas of officer skill improvement and career development. Augmenting officer skill increases professionalism, improves

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[3] Ibid., QCEW.

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the treatment of inmates, and enhances the job prospects for displaced officers following a layoff or facility closure. Our hope is that this section provides guidance to officers that want to grow their careers with the larger criminal justice field, and to policy makers and stakeholders that want higher quality correctional services.

Section 1: Inmates, Facilities and Staff

Understanding how the size of the inmate population relates to the demand for facility space and prison personnel helps to predict facility closures and staffing adjustments. Our analysis measures the relationships between Michigan's inmate population, facility space, and the size of the prison workforce.

The data for this analysis was compiled from annual statistical reports published by the MDOC. Michigan's annual reports include facility-level information on the inmate population, security level and staffing. MDOC reports going back to 1998 are available on the web.[4] The research team obtained older report material dating to the late 1960s. Data on inmate counts and personnel was culled from relevant report tables to construct a longitudinal data set for analysis.

Dynamic Incarceration Trends

Inmate populations are in decline nationally (Friedman, Grawert, and Cullen, 2017), and Michigan conforms to these recent trends. It is instructive, though, to take a longer-term perspective to appreciate the extent of change in Michigan's inmate population over the last 50 years. Figure 1.1 below plots the size of the inmate population from 1970 to 2016.

Figure 1.1: Michigan's Inmate Population, 1970 to 2016

Source: MDOC Annual Reports

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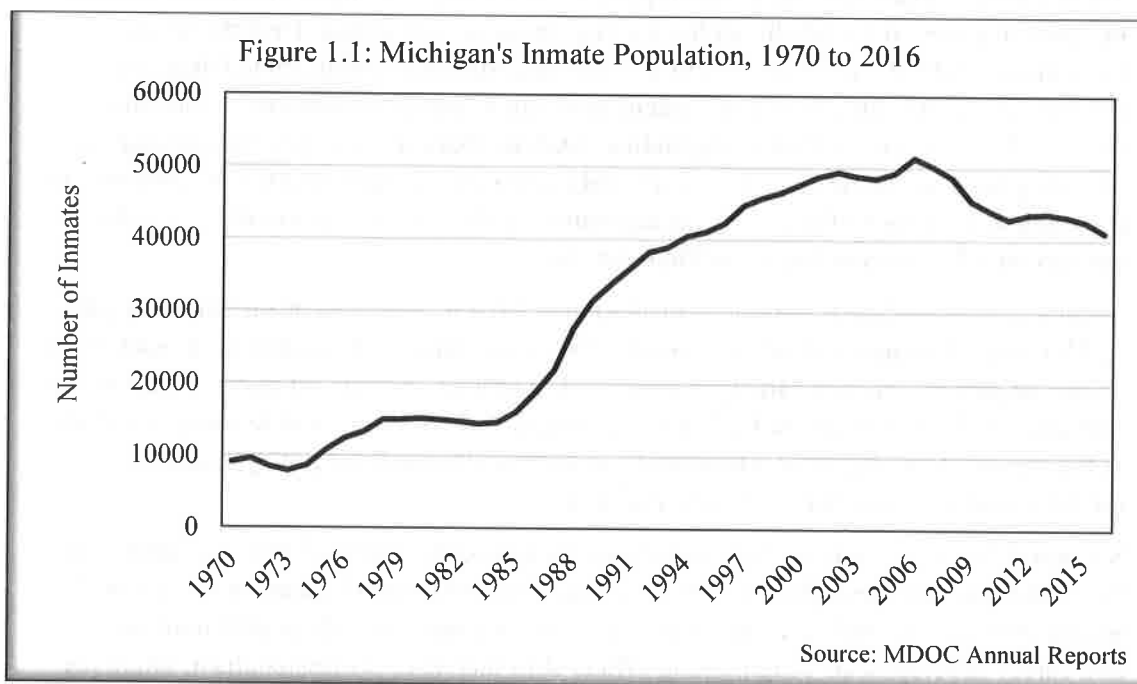
[4] Reports are available at: https://www.michigan.gov/corrections/0,4551,7-119-1441---,00.html

Inmate population size is driven by many factors, including the crime rate, sentencing guidelines, judicial appointments, population demographics, economic conditions, and so forth. As Figure 1.1 shows, like much of the nation, Michigan experienced rapid inmate population growth beginning in the mid-1980s. In the early 1970s, Michigan's prisons held less than 10,000 offenders. In the peak incarceration year, 2006, Michigan housed over 50,000 inmates; a five-fold increase in less than 40 years. Figure 1.1 also illustrates that since the peak in 2006, Michigan's inmate population has steadily declined.

From this longer historical view, it is clear that the MDOC had to adjust to an exponential growth in the state inmate population, especially during the 20-year period from 1985 to 2006. Inmate population decline is a phenomenon of only the last decade. Taking the longer view, Michigan corrections can be characterized as a sector with a roller-coaster pattern; a steep incline that has passed the peak and is now in descent. Moving forward, a key question is just how far the industry will contract.

Inmates and Facilities

The rapid inmate population growth in the 1980s and 1990s precipitated a capacity crisis at the MDOC. Capacity utilization is the number of inmates divided by the total designed bed capacity of the MDOC facilities. Capacity utilization measures greater than 1 are when the inmate population has exceeded the designed capacity of the facilities. Figure 1.2 presents estimates for capacity utilization from 1986 to 2016.

Figure 1.2: Michigan's Capacity Utilization, 1986 to 2016

Source: MDOC Annual Reports
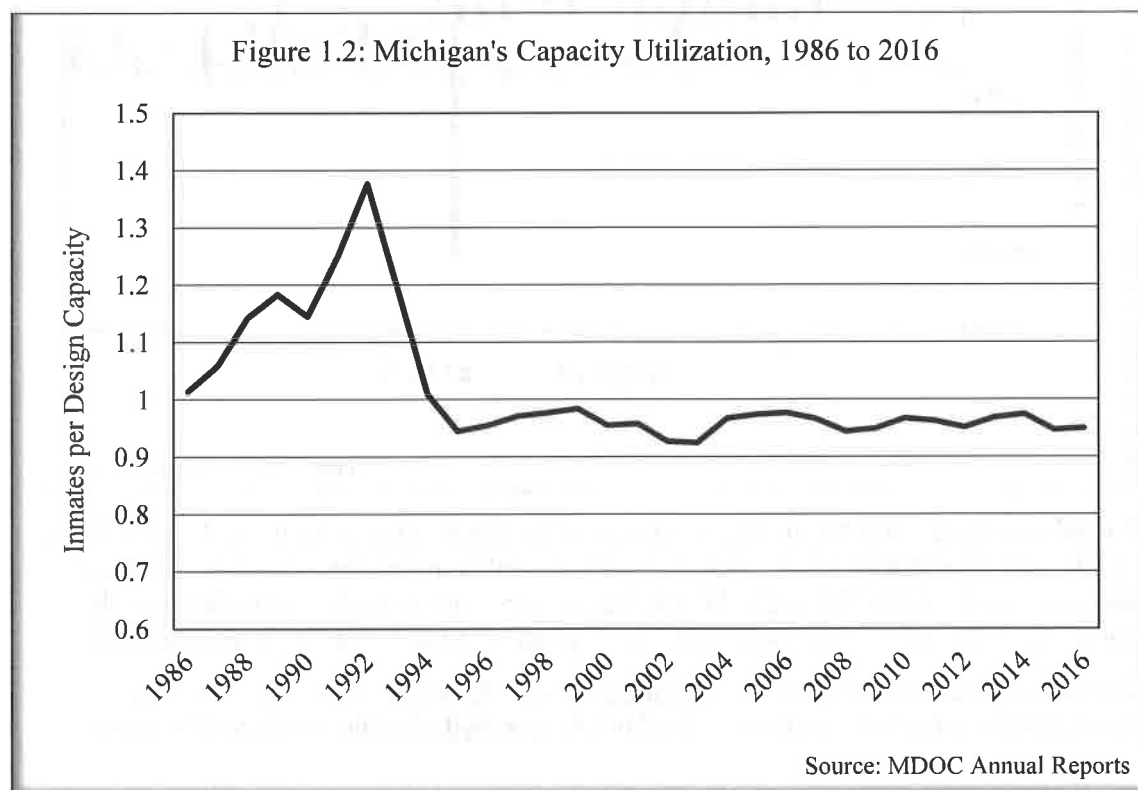
As Figure 1.2 illustrates, the system was entering a capacity crisis in the late 1980s due to the rapid influx of inmates, and the lag in constructing new facilities. Yet, by the mid-1990s Michigan had enough designed bed space for the inmate population. The capacity crisis was met by building new prisons and augmenting the size of existing prisons.

Since 2006, as the inmate population has declined, the MDOC has closed facilities to reduce overhead. Excess capacity is costly because each facility carries certain fixed expenses for staffing, utilities, maintenance, and so forth. And so, just as the inmate population expansion required new space to prevent overcrowding, facilities are closed when the inmate population shrinks to reduce site under-utilization.[5]

Historical data show that capacity adjustments are a dynamic process; in any given year the MDOC might open and close facilities to meet existing and projected inmate holding requirements. Figure 1.3 below illustrates the annual capacity expansion and contraction over the 1986 to 2016 period.

Figure 1.3: Change in Prison Holding Capacity, 1980 to 2018

Source: MDOC Annual Reports
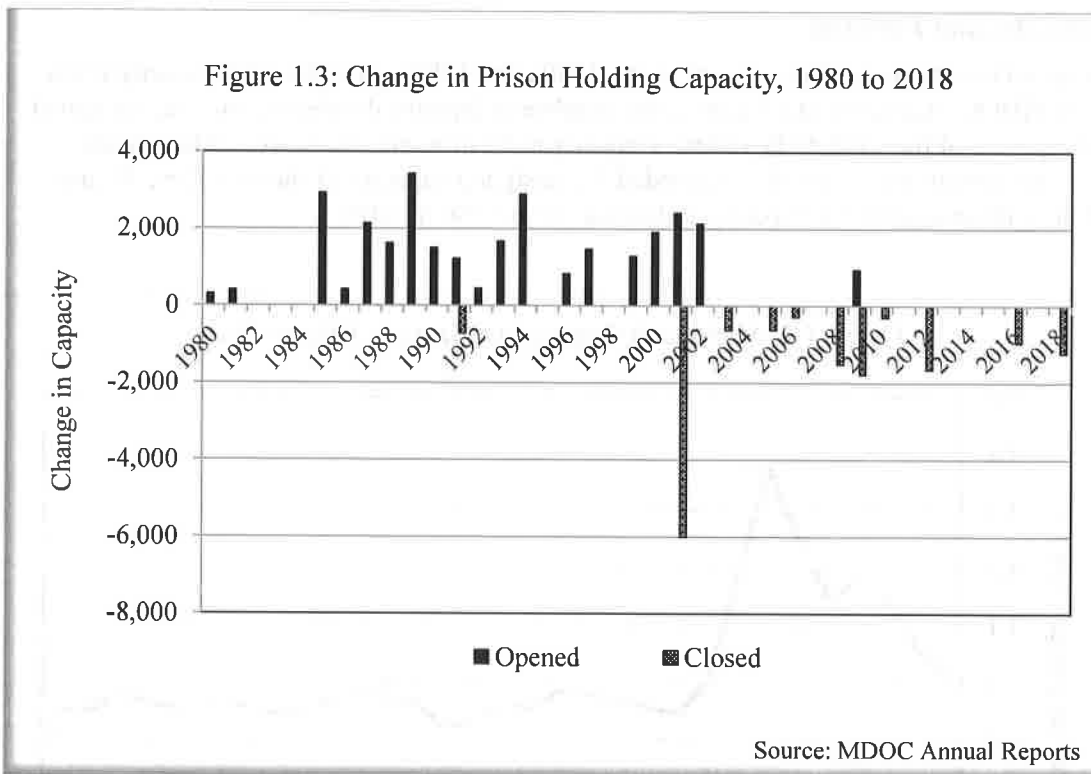
Visible in Figure 1.3 is the steady expansion of facility holding capacity in the mid-1980s to alleviate the capacity crisis. New facilities or facility augmentations occurred almost annually. In the early 2000s, the MDOC began to engage in facility consolidation. In particular, after 2003 there is a systematic program to steadily reduce excess capacity.

In terms of predicting when a facility might close, it would be valuable to track the ratio of the number of inmates to the designed holding capacity for the whole MDOC system.

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[5] Table A1 in the appendix lists the facilities, year opened, initial capacity, year closed, and official reason for closure

Reviewing Figure 1.2, it appears the MDOC objective is to maintain a capacity utilization rate in the range between 95 and 100 percent (0.95 to 1.0). For policy makers and stakeholders that want to anticipate consolidation, it seems a facility closure is likely when this ratio falls below 95 percent.

Inmates and Staffing

Michigan's annual reports provide regular staffing counts by facility beginning in 1986. The data give the numbers of correction officers and total employees. These data were compiled in longitudinal form to analyze the relationship between the inmate population and the corrections workforce.

Staffing estimates were prepared that adjusts staffing based on year, level of security and unmeasured facility traits. Figure 1.4 plots the predicted number of inmates per officer and total staff (officers and non-officers) from 1986 to 2016.

Figure 1.4: Inmates per Officers and Total Staff, 1986 to 2016

Source: MDOC Annual Reports
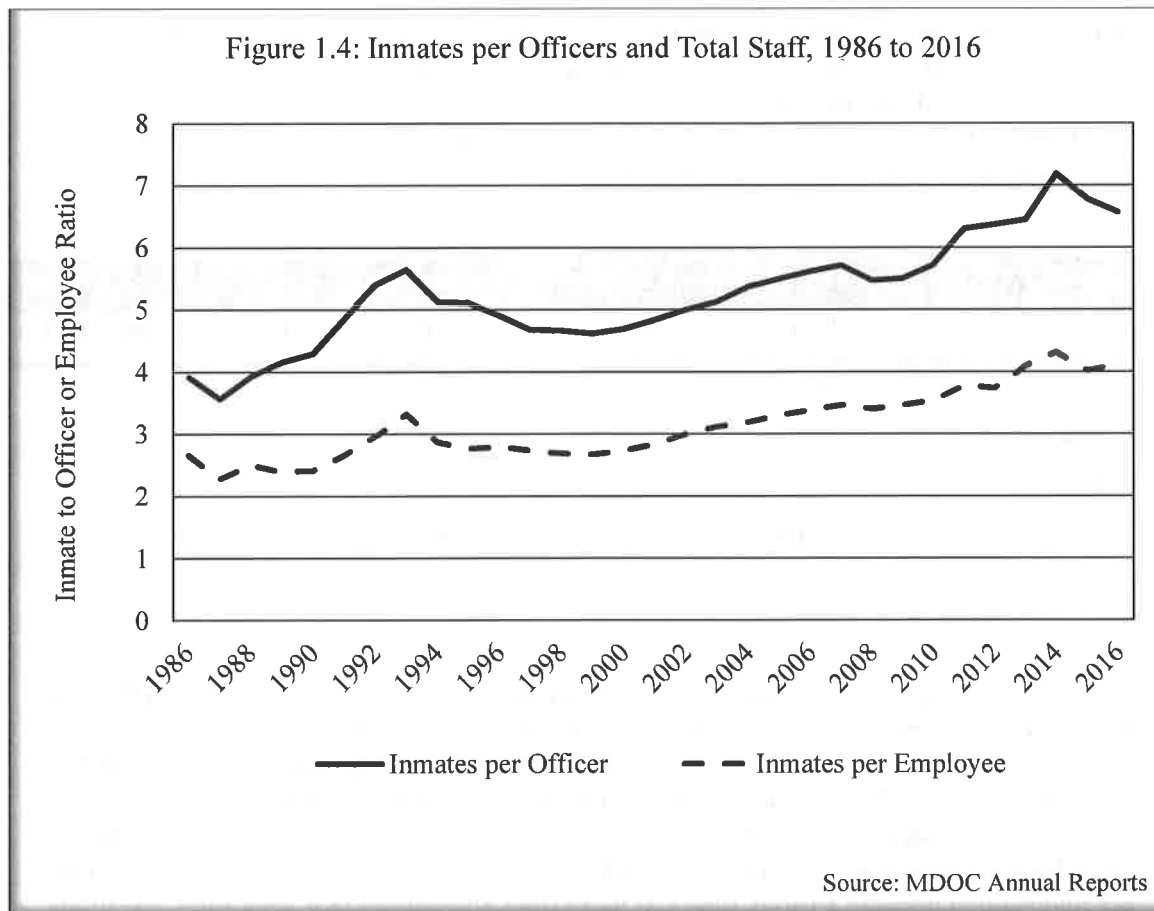
As Figure 1.4 illustrates, in 1986 the MDOC staffed at around 4 inmates per officer, and about 2.5 inmates per every employee. When the inmate population expanded in the 1980s and 1990s, staffing did not grow proportionately. Had that been the case, the trend lines in Figure 1.4 would be flat. Instead, the ratios climbed, especially during time periods when the inmate population accelerated quickly and the system was stressed.

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It is instructive to compare the trend lines in Figures 1.2 and 1.4. Maintaining sufficient facility space to prevent overcrowding during the inmate expansion phase was a MDOC priority. Matching the growing inmate population with adequate staffing less so, as indicated by the fact that the inmate to staffing ratios were allowed to drift upward.

In the most recent year that data is available, the inmate to officer ratio is about 6.6 and the inmate to employee ratio is 4.1. By this measure, the custody and security role of officers and other staff has intensified by over 50 percent since the mid-1980s.

A question is whether these staffing ratios are dangerously high for inmates, officers and others working in the system. Industry staffing standards are notoriously elusive because they depend on many idiosyncratic factors, such as facility design, security level, mission of institution, use of technology, and so forth. Answering this question would require an assessment of each MDOC facility to assess context.

We can, however, gain some perspective by looking at the staffing ratios in other states. The research team was able to obtain inmate to officer ratios from four other states, and these figures are listed in Table 1.1 below for the most recent year available. These comparative statistics suggest that Michigan has similar staffing ratios to Ohio and Texas, yet higher ratios than Colorado and Connecticut.

Table 1.1: Inmate to Officer Ratios in Four Other States				
State	**Year**	**Inmates**	**Officers**	**Inmate/Officer Ratio**
Colorado	2016	15,879	3,504	4.53
Connecticut	2013	16,988	3,611	4.71
Ohio	2017	44,201	6,677	6.62
Texas	2017	112,238	20,567	5.46
Source: Various state reports.				

When considering these statistics, it is important to be mindful that they do not reflect the inmate to officer ratios during prison operations. Corrections operates 24 hours a day, 7 days a week. Like many industries, corrections personnel are typically assigned a shift of 40 hours per week. Given that a week has 168 hours, in order to approximate the average number of inmates per officer at any point in time, the above ratios needs to be multiplied by at least a factor of 4.2 (i.e. 168/40). And even with this adjustment, the ratio estimates are understated because various forms of work time allowances (e.g. sick time, vacations, and so forth) need to be factored into the calculations. Under actual operations, inmate to officer ratios vary widely depending on the time of day and inmate activity.

Discussion

Over the past several decades, the MDOC has had to adjust to large changes in the size of the inmate population. Facility capacity expanded rapidly beginning in the mid-1980s.

Yet in the recent decade, inmate growth has declined and facilities are being closed. As a rule of thumb, closures happen when the system is below 95 percent capacity utilization.

The MDOC has not maintained staffing levels commensurate with the growth in the inmate population. The inmate to officer ratio is about 50 percent greater between the mid-1980s and present. Further, there is no evidence that the per capita decline in officers was offset by a gain in non-officer staff. The inmate to employee ratio grew at a nearly identical pace, as illustrated by the parallel lines in Figure 1.4. Additional study is advised to assess how this affects employment risks, recidivism, inmate safety, overall security and officer well-being.

Section 2: Economic Impact Analysis of Michigan Facilities

This section examines the economic effect of the MDOC prison facilities in Michigan. Two analyses are performed. The first estimates the economic impact of the entire prison system on each county in Michigan; the second estimates the effect of each facility on the home county where the facility exists and three proximate counties. The information is provided to inform any future facility closure decisions.

Estimates were prepared with a model simulation technique, using an analysis tool from REMI (Regional Economic Models Incorporated). Versions of REMI are widely used in the United States and in several foreign countries to estimate the economic activity of various programs and to generate long-run forecasts of economic activity. REMI is used in Michigan by the Department of Transportation and the Economic Development Corporation as well as the Upjohn Employment Institute and the University of Michigan.

The REMI model is an advanced input-output model that uses methods from regional science and economics, including a computable nearly general equilibrium model of a state's economy.[6] The REMI model captures dynamic relationships in an economy. For example, the REMI model does not assume that the labor supply is unlimited at current wages. Instead, in the REMI model, an increase in demand for labor generates an equilibrating response in local wages, prices, and population migration to ensure "closure" of the labor market.

The REMI model also incorporates a time dimension which allows for lags in the closure of the labor market, as well as changes in population and labor productivity. Population change by age cohort has important effects on both the labor supply and unearned income (and corresponding consumer spending) in the REMI model. Productivity growth over time means that the same real dollar input into the REMI model will generate fewer jobs over time. In a static model, the employment gains from a given value of real dollar spending will be constant. These strengths explain the popularity of the REMI tool.

Assumptions and Limitations

There are four key assumptions used in the development of the estimates:

1) The average wage paid to the employees in each correctional facility is assumed to be equal to the average wage in all state government correctional facilities in Michigan.

2) The cost of the corrections facilities is paid for by state government personal income tax.

3) The operation of the corrections facilities in Michigan will not increase total employment, population, or income in the United States as a whole.

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[6] As opposed to a fully general equilibrium model, the REMI model does not include endogenous closure of the government fiscal and capital markets.

4) The presence of the prison system will have a positive amenity effect on the value of housing in communities in Michigan as opposed to a situation where the state did not have the ability to remove from the population convicted felons.

The annual average wage for all state government correctional facilities in Michigan in 2016 was $57,571, including overtime, but excluding employer paid benefits, according to the Bureau of Labor Statistics (BLS) Quarterly Census of Employment and Wages. Data on wage rates for correctional facilities are not published by the BLS by county. In order to generate the best possible estimate of the spin-off benefits from the spending of corrections officers' income, it was assumed that each corrections facility employee was paid the state-wide average wage.

In Michigan the corrections department is funded by General Fund General Purpose Tax Fund. The primary source of revenue for this fund is the personal income tax. Total spending on correctional facilities in Michigan in 2016 was $1.067 billion, resulting in an effective tax cost of $1.067 billion on Michigan residents. The $1.067 billion includes all spending on correctional facilities, including wages and benefits of employees, but also purchased goods and services.

Our model distributed the tax burden across counties based upon their share of statewide net earnings. Net earnings in Oakland County are the highest in the state; consequently, the residents of Oakland County are estimated to pay for 20.6 percent of the cost of the correctional facilities, or $220.0 million in 2016. (Note that the cost for each individual correctional facility is distributed in the same proportions. For example, 20.6 percent of the cost of the Alger correctional facility is paid for by the residents of Oakland County.)

During a period of low unemployment, the only way to generate a net increase in the number of people working in the United States is to increase either the labor force participation rate or the population in the country. There is no reason to think that the operation of the Michigan correctional facilities causes such an increase. Consequently, the model results are generated under an assumption that the net effect on employment, population and total personal income in the United States is zero. In other words, the economic benefits of a correctional facility to one community will be completely offset by losses to other communities.

The tax cost of paying for the correctional system will be partially offset by the increase in the amenity value of living in Michigan. The amenity value of government spending to maintain the corrections facility is assumed to effectively increase the value of housing in Michigan (due to a safer society), thus increasing net population to Michigan (although in fact, it actually shows up as a lower rate of net out-migration). Subsequently, the presence of the correctional facilities has a positive effect on employment, population, and income on the state overall.

One limitation is that the intermediate demand purchases, and thus the spin-off jobs and income do not include the farm sector. This is a common problem with input-output models which tend to be limited to the Non-Farm economy. The results also do not include any travel related spending by individuals visiting the prison inmates.

Data Definitions in the Results Tables

Employment is the total of wage and salary employment and proprietors (more commonly known as self-employed) as measured by the Bureau of Economic Analysis (BEA) Regional Economic Information System. The data counts full and part-time wage and salary equally. The number of proprietors reflects the number of federal income tax returns filed sole proprietors (self-employed) and general partners. These data are from IRS Schedule C and Form 1065.[7] Someone who has two part-time jobs or who has both a wage and salary job and who "free-lances" as a sole-proprietor is counted as two employees. Thus, the BEA employment count is greater than the BLS count of the number of employed persons. For example, the BEA reports that the 2016 employment in Michigan was 5,611,718, including 4,407,823 wage and salary workers and 1,203,895 proprietors. The BLS residence count of the number of people employed in Michigan in 2016 was 4,657,272. Almost all of the difference between these two series is explained by how they count self-employed workers.

In order to be counted as a self-employed worker in the BLS survey of households the person must report that their self-employment job is their primary job. Also, the BLS measure is an average of 12 months of data, whereas to be reported as self-employed in the BEA data a person only needs to report self-employment earnings for any period during the year.

Personal income is a broad measure of the income of residents in a community. In addition to all wage and salary income and proprietor's income, it includes all transfer payment income including social security benefits and government paid medical benefits such as Medicare and Medicaid. Income also includes the estimated value of employer contributions to health and pension plans and income from dividends, interest and rental income, including payments to pension plans. Personal income does not include "capital gains" income. Note that the "pension" related income is reported at the time and place where the money is contributed and earned, not where and when the pension payments are made to individuals. For example, the "personal income" attributed to a person in Michigan includes their employer's payments into their pension fund while they are working in Michigan but does not include the value of "payments" to them when they retire, whether they retire in Michigan or some other state. Also note, that since personal income is a residence-based measure, it includes the income of workers who live in one county but work in another. In 2016, wage and salary income were barely one-half (51 percent) of personal income in the state of Michigan.

Simulation Results

As shown in Table 2.1 the economic impact of Michigan's correctional facilities, even after imposing a higher state-wide tax to pay for these facilities and assuming no net new jobs or population created nationwide, is predicted to increase employment by 7,708, population by 1,476, and personal income by $411.6 million, inflation adjusted 2016

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[7] A detailed explanation of BEA data is at: https://www.bea.gov/regional/pdf/lapi2016.pdf

dollars (shown in the bottom row of the table). Table 2.1 also shows the unemployment rate by County in 2017. Unemployment is a measure of how challenging it would be for workers to find a new job if their facility was closed or downsized.

The benefits from all of the correctional facilities in Michigan are not distributed equally around the state. Counties where a correctional facility is located tend to enjoy a positive impact on employment, population, and income. Whereas counties that do not have a correctional facility usually show a net loss of jobs, population, and income. A few counties, which border a county with a correctional facility, for example, Houghton County, experience a net gain in employment, population, and income due to the fact that some residents of that county commute to jobs in the county where the facility is located. On the other hand, Wayne and Macomb counties suffer a net loss of jobs and population because the cost of their estimated tax burden to pay for all correctional facilities exceeds the jobs created by the correctional facilities located within their borders.[8]

The results for each correctional facility are presented in Table 2.2. Estimates are displayed for the county where the facility is located and for the three neighboring counties with the largest effect on personal income, mostly due to commuting. Only the tax cost of the specific facility is imposed on the residents of Michigan.

As expected, most of the economic benefits of a prison accrue to the county where the facility is located. For instance, the first county listed, Alger, enjoys an estimated gain of 313 total jobs, including 259 jobs from the Alger Correctional facility itself. Many of the 54 spin-off jobs in the county are in local government, including K-12 schools, due to the increase in the local population (excluding prison inmates). Neighboring counties also receive some spin-off benefits. For example, the Alger Correctional facility is estimated to create 13 jobs in Marquette, 10 jobs in Delta, and 3 jobs in Schoolcraft counties.

While the results here are shown as a positive contribution to the local economy, the simulation results are symmetric. If any facility were to close, the effect on the local community would be the negative of the value in the table. Hence, Alger County would lose a total of 313 jobs, $14.7 million in personal income, and 406 people if the Alger Correctional Facility were to close.

Discussion

An important consideration is the share of economic activity that a local correctional facility accounts for a community. Newberry Correctional facility accounts for 11.8 percent of all jobs and 10.5 percent of all income in Luce County. Baraga Correctional facility accounts for 10.1 percent of all jobs and 8.2 percent of all income in Baraga County. Alger Correctional facility accounts for 8.8 percent of all jobs and 7.1 percent of all income in Alger County. In 2017, the unemployment rate in Luce County was 6.9 percent, in Baraga 8.0 percent, and in Alger 8.4 percent, all well above the state-wide rate

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[8] Note that impact of all correctional facilities on personal income in Wayne County is positive because of commuters, but is negative in Macomb County.

of 4.6 percent. Absent some state relief, the closure of these facilities would have a catastrophic effect on the economic well-being of these counties.

Seven other facilities (Carson City, Central Michigan, Chippewa, Kinross, Oaks, Ojibway and St. Louis) account for over 2 percent of employment in their home county. The unemployment rate in the counties where these facilities are located all also have an unemployment rate greater than the state-wide average, ranging from 5.1 percent in Montcalm County (home of Carson City Correctional facility) to 7.8 percent in Chippewa County (home of Chippewa and Kinross).

Historically, many correctional facilities have been located in relatively rural counties in Michigan; closing any of these facilities would have severely adverse consequences on the counties where the facilities are located. In determining which facilities to close or downsize the MDOC should consider the implications for the local communities which have supported the facilities over the years. And, if the MDOC determines that it needs to substantially downsize or close a facility in a rural community, it must engage state economic development officials in order to mitigate the socio-economic impact of such a disruption.

Table 2.1: Estimated Effect of Michigan Prison Facilities on Michigan Counties (income in 2016 dollars)

Michigan County	Jobs at Prison Facilities	Total Jobs Generated	Percent of Jobs	Personal Income	Percent of Personal Income	Population	2017 Unemployment
Alcona	0	-1	-0.04%	-94,559	-0.03%	-6	7.3%
Alger	259	315	8.81%	15,217,030	7.30%	415	8.4%
Allegan	0	-53	-0.10%	-5,997,929	-0.15%	-277	3.9%
Alpena	0	-12	-0.08%	-646,304	-0.07%	-36	5.9%
Antrim	0	-5	-0.05%	-767,794	-0.11%	-31	6.7%
Arenac	0	-3	-0.04%	-103,830	-0.02%	-13	8.2%
Baraga	296	378	10.00%	17,416,713	8.24%	574	8.0%
Barry	0	-15	-0.08%	-2,775,684	-0.13%	-141	4.0%
Bay	0	-40	-0.08%	-982,560	-0.03%	-131	5.6%
Benzie	0	0	0.00%	-444,534	-0.08%	-31	6.6%
Berrien	0	-84	-0.10%	-5,262,347	-0.10%	-249	5.0%
Branch	277	332	1.75%	16,104,935	1.34%	409	4.7%
Calhoun	0	-23	-0.03%	2,514,758	0.06%	-106	5.0%
Cass	0	-21	-0.14%	-5,377,736	-0.32%	-170	4.7%
Charlevoix	0	-6	-0.04%	-349,893	-0.03%	-26	5.7%
Cheboygan	0	11	0.11%	933,485	0.13%	17	10.3%
Chippewa	762	1,282	7.85%	69,022,935	7.66%	2,031	7.8%
Clare	0	-2	-0.02%	-119,386	-0.01%	-29	7.1%
Clinton	0	-16	-0.06%	-362,300	-0.01%	-174	3.7%
Crawford	0	-3	-0.05%	-381,658	-0.11%	-28	7.0%
Delta	0	0	0.00%	474,853	0.04%	-23	6.4%
Dickinson	0	-2	-0.01%	-636,588	-0.07%	-26	4.9%
Eaton	0	5	0.01%	5,805,670	0.15%	7	4.2%
Emmet	0	-4	-0.01%	-678,716	-0.05%	-38	6.6%

County						
Genesee	0	-0.13%	-11,234,035	-0.08%	-756	5.8%
Gladwin	0	-0.04%	-437,229	-0.07%	-29	6.7%
Gogebic	213	3.81%	12,908,396	2.96%	356	6.1%
Grand Traverse	0	-0.06%	-286,106	-0.01%	-121	4.3%
Gratiot	729	4.61%	43,842,475	3.67%	1,141	5.5%
Hillsdale	0	0.08%	5,943,836	0.46%	76	5.0%
Houghton	0	0.22%	4,925,521	0.49%	75	6.1%
Huron	0	-0.07%	-810,288	-0.07%	-45	5.3%
Ingham	0	-0.06%	-1,321,838	-0.01%	-402	4.4%
Ionia	1,333	5.93%	70,206,741	3.98%	2,070	4.0%
Iosco	0	-0.06%	-453,459	-0.07%	-26	7.5%
Iron	0	0.05%	436,212	0.13%	8	6.5%
Isabella	0	0.10%	5,000,051	0.24%	94	4.6%
Jackson	1,649	2.79%	110,197,551	2.18%	2,803	4.7%
Kalamazoo	0	-0.12%	-9,169,732	-0.09%	-547	4.1%
Kalkaska	0	-0.05%	-689,453	-0.15%	-34	7.1%
Kent	0	-0.06%	9,923,472	0.03%	-661	3.5%
Keweenaw	0	0.13%	129,756	0.19%	4	8.7%
Lake	0	0.04%	418,817	0.13%	15	8.1%
Lapeer	310	0.92%	9,822,288	0.31%	237	5.4%
Leelanau	0	-0.06%	-1,393,077	-0.12%	-41	4.9%
Lenawee	489	1.51%	35,738,729	1.18%	913	4.8%
Livingston	302	0.23%	-9,489,673	-0.11%	-271	3.3%
Luce	222	11.81%	14,769,463	10.71%	456	6.9%
Mackinac	0	0.34%	4,272,422	1.34%	93	10.2%
Macomb	326	-0.09%	-45,413,914	-0.13%	-2,117	4.3%
Manistee	318	4.08%	21,501,704	3.05%	542	6.6%

County							
Marquette	351	563	1.55%	32,205,826	1.59%	832	5.7%
Mason	0	8	0.05%	2,377,395	0.26%	41	5.8%
Mecosta	0	-8	-0.04%	-220,146	-0.02%	-83	5.8%
Menominee	0	-10	-0.10%	-1,310,195	-0.18%	-51	5.0%
Midland	0	-12	-0.02%	4,357,107	0.12%	-21	4.8%
Missaukee	0	-2	-0.04%	-407,534	-0.10%	-24	6.0%
Monroe	0	-94	-0.16%	-14,143,450	-0.25%	-488	4.9%
Montcalm	417	567	2.40%	33,256,536	1.99%	813	5.1%
Montmorency	0	-1	-0.02%	-73,193	-0.03%	-5	10.8%
Muskegon	694	899	1.07%	42,765,420	0.81%	1,097	5.4%
Newaygo	0	-11	-0.06%	-1,179,626	-0.08%	-78	5.0%
Oakland	0	-1,540	-0.14%	-69,770,253	-0.09%	-2,720	3.4%
Oceana	0	1	0.01%	1,087,596	0.15%	-1	7.2%
Ogemaw	0	-5	-0.05%	-302,616	-0.05%	-22	7.8%
Ontonagon	0	3	0.15%	825,531	0.56%	17	9.1%
Osceola	0	-2	-0.02%	-370,971	-0.06%	-27	6.1%
Oscoda	0	-1	-0.03%	-100,576	-0.04%	-6	7.5%
Otsego	0	-7	-0.05%	-591,236	-0.08%	-36	6.1%
Ottawa	0	-193	-0.12%	-12,981,308	-0.12%	-711	3.3%
Presque Isle	0	-2	-0.04%	-148,401	-0.04%	-12	9.5%
Roscommon	0	-3	-0.04%	-156,837	-0.02%	-15	8.9%
Saginaw	295	309	0.27%	12,492,664	0.20%	212	5.5%
Sanilac	0	-16	-0.08%	-1,064,269	-0.09%	-67	6.0%
Schoolcraft	0	6	0.17%	1,245,690	0.54%	29	8.5%
Shiawassee	0	-29	-0.11%	-3,639,848	-0.17%	-177	5.3%
St. Clair	0	-137	-0.21%	-13,732,088	-0.25%	-505	5.0%
St. Joseph	0	-23	-0.08%	-2,290,090	-0.13%	-122	4.3%

Tuscola	0	-16	-0.09%	-355,637	-0.02%	-70	6.4%
Van Buren	0	-44	-0.14%	-5,704,423	-0.24%	-211	5.8%
Washtenaw	554	558	0.20%	27,924,622	0.16%	275	3.6%
Wayne	288	-703	-0.07%	10,348,277	0.02%	-2,093	5.4%
Wexford	0	-9	-0.05%	-629,217	-0.07%	-44	5.7%
State of Michigan	10,084	7,708	N.A.	411,561,941	N.A.	1,476	4.6%

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MDOC Facility	Security Level	Michigan County	Jobs at the Facility	Total Jobs Generated	Percent of Jobs	Personal Income	Percent of Personal Income	Population
Alger	2 & 4	Alger	259	313	8.77%	14,728,807	7.07%	406
Alger	2 & 4	Marquette	0	13	0.04%	1,597,316	0.08%	22
Alger	2 & 4	Delta	0	10	0.06%	1,206,794	0.11%	18
Alger	2 & 4	Schoolcraft	0	3	0.10%	665,119	0.29%	13
Baraga	1 & 5	Baraga	296	381	10.05%	17,388,942	8.22%	587
Baraga	1 & 5	Houghton	0	67	0.40%	6,965,755	0.69%	192
Baraga	1 & 5	Marquette	0	16	0.04%	1,884,401	0.09%	44
Baraga	1 & 5	Ontonagon	0	2	0.11%	364,952	0.25%	11
Bellamy Creek	1, 2, & 4	Ionia	416	528	1.86%	22,436,503	1.27%	681
Bellamy Creek	1, 2, & 4	Kent	0	21	0.00%	3,096,684	0.01%	19
Bellamy Creek	1, 2, & 4	Montcalm	0	16	0.07%	3,057,356	0.18%	51
Bellamy Creek	1, 2, & 4	Clinton	0	4	0.02%	1,595,432	0.06%	13
Brooks and Shoreline	1, 3, & 4	Muskegon	470	679	0.81%	32,874,881	0.62%	975
Brooks and Shoreline	1, 3, & 4	Ottawa	0	24	0.01%	3,705,310	0.03%	58
Brooks and Shoreline	1, 3, & 4	Oceana	0	6	0.05%	1,488,959	0.21%	32
Brooks and Shoreline	1, 3, & 4	Newaygo	0	4	0.02%	852,478	0.06%	18
Carson City	1, 2, & 4	Montcalm	417	526	2.22%	22,631,877	1.35%	696
Carson City	1, 2, & 4	Kent	0	21	0.00%	3,787,893	0.01%	33
Carson City	1, 2, & 4	Ionia	0	11	0.04%	2,011,868	0.11%	34
Carson City	1, 2, & 4	Mecosta	0	7	0.04%	1,122,222	0.10%	25
Central Michigan	1	Gratiot	405	494	2.57%	23,764,274	1.99%	655
Central Michigan	1	Isabella	0	31	0.07%	2,703,217	0.13%	89
Central Michigan	1	Midland	0	15	0.03%	2,672,755	0.07%	40

Table 2.2: Estimated Economic Impact of Each Prison Facility (income in 2016 dollars)

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Central Michigan	1	Montcalm	0	10	0.04%	2,136,001	0.13%	46
Chippewa	1, 2, & 4	Chippewa	463	781	4.78%	41,202,564	4.57%	1,239
Chippewa	1, 2, & 4	Mackinac	0	9	0.15%	1,460,739	0.46%	39
Chippewa	1, 2, & 4	Cheboygan	0	10	0.10%	769,564	0.11%	24
Chippewa	1, 2, & 4	Emmet	0	9	0.03%	299,783	0.02%	11
Cooper	1	Jackson	390	521	0.67%	26,308,803	0.52%	704
Cooper	1	Ingham	0	17	0.01%	1,634,898	0.02%	26
Cooper	1	Hillsdale	0	4	0.02%	1,083,005	0.08%	23
Cooper	1	Lenawee	0	5	0.01%	1,072,368	0.04%	22
Cotton	1, 2, & 4	Jackson	415	555	0.72%	27,995,264	0.55%	750
Cotton	1, 2, & 4	Ingham	0	18	0.01%	1,739,699	0.02%	28
Cotton	1, 2, & 4	Hillsdale	0	5	0.02%	1,152,429	0.09%	24
Cotton	1, 2, & 4	Lenawee	0	6	0.01%	1,141,110	0.04%	24
Detroit Detention	N.A.	Wayne	60	82	0.01%	3,549,155	0.01%	100
Detroit Detention	N.A.	Oakland	0	3	0.00%	1,056,515	0.00%	4
Detroit Detention	N.A.	Macomb	0	0	0.00%	284,051	0.00%	-1
Detroit Detention	N.A.	Washtenaw	0	0	0.00%	207,398	0.00%	0
Detroit Re-entry	N.A.	Wayne	228	313	0.03%	13,486,788	0.02%	378
Detroit Re-entry	N.A.	Oakland	0	12	0.00%	4,014,756	0.01%	16
Detroit Re-entry	N.A.	Macomb	0	0	0.00%	1,079,394	0.00%	-5
Detroit Re-entry	N.A.	Washtenaw	0	-1	0.00%	788,111	0.00%	1
Egeler	1 & 2	Jackson	561	750	0.97%	37,844,201	0.75%	1,013
Egeler	1 & 2	Ingham	0	25	0.01%	2,351,738	0.02%	38
Egeler	1 & 2	Hillsdale	0	6	0.03%	1,557,861	0.12%	33
Egeler	1 & 2	Lenawee	0	7	0.02%	1,542,560	0.05%	32
Gus Harrison	1, 2, & 4	Lenawee	489	634	1.55%	35,126,789	1.16%	1,003
Gus Harrison	1, 2, & 4	Hillsdale	0	5	0.02%	1,449,224	0.11%	25

Gus Harrison	1, 2, & 4	Jackson	0	6	0.01%	505,260	0.01%	7
Gus Harrison	1, 2, & 4	Monroe	0	1	0.00%	291,284	0.01%	-3
Handlon	2	Ionia	312	396	1.40%	16,827,377	0.95%	511
Handlon	2	Kent	0	16	0.00%	2,322,513	0.01%	14
Handlon	2	Montcalm	0	12	0.05%	2,293,017	0.14%	39
Handlon	2	Clinton	0	3	0.01%	1,196,574	0.04%	10
Ionia	2 & 5	Ionia	283	359	1.27%	15,263,294	0.87%	464
Ionia	2 & 5	Kent	0	14	0.00%	2,106,639	0.01%	13
Ionia	2 & 5	Montcalm	0	11	0.04%	2,079,884	0.12%	35
Ionia	2 & 5	Clinton	0	3	0.01%	1,085,354	0.04%	9
Kinross	1 & 2	Chippewa	299	504	3.09%	26,608,135	2.95%	800
Kinross	1 & 2	Mackinac	0	6	0.10%	943,328	0.30%	25
Kinross	1 & 2	Cheboygan	0	6	0.06%	496,975	0.07%	15
Kinross	1 & 2	Emmet	0	6	0.02%	193,596	0.01%	7
Lakeland	2	Branch	277	340	1.79%	16,653,354	1.39%	453
Lakeland	2	Calhoun	0	11	0.01%	1,706,358	0.04%	28
Lakeland	2	Hillsdale	0	5	0.03%	1,587,558	0.12%	34
Lakeland	2	St. Joseph	0	2	0.01%	411,812	0.02%	4
Macomb	1, 2, & 4	Macomb	326	452	0.10%	19,728,195	0.05%	530
Macomb	1, 2, & 4	Wayne	0	0	0.00%	2,059,123	0.00%	-12
Macomb	1, 2, & 4	Oakland	0	-9	0.00%	1,579,299	0.00%	-25
Macomb	1, 2, & 4	St. Clair	0	6	0.01%	1,421,177	0.03%	23
Marquette	1 & 5	Marquette	351	570	1.57%	30,486,581	1.51%	872
Marquette	1 & 5	Alger	0	2	0.05%	378,310	0.18%	10
Marquette	1 & 5	Dickinson	0	4	0.02%	131,353	0.01%	9
Marquette	1 & 5	Baraga	0	0	0.01%	129,450	0.06%	2
Michigan Reformatory	2 & 4	Ionia	322	409	1.44%	17,366,716	0.98%	527

Facility	Code	County						
Michigan Reformatory	2 & 4	Kent	0	16	0.00%	2,396,953	0.01%	15
Michigan Reformatory	2 & 4	Montcalm	0	12	0.05%	2,366,511	0.14%	40
Michigan Reformatory	2 & 4	Clinton	0	3	0.01%	1,234,926	0.04%	10
Muskegon	2	Muskegon	224	323	0.38%	15,668,028	0.30%	465
Muskegon	2	Ottawa	0	12	0.01%	1,765,935	0.02%	28
Muskegon	2	Oceana	0	3	0.03%	709,632	0.10%	15
Muskegon	2	Newaygo	0	2	0.01%	406,287	0.03%	9
Newberry	1	Luce	222	300	11.79%	14,521,352	10.53%	456
Newberry	1	Chippewa	0	15	0.09%	2,088,754	0.23%	44
Newberry	1	Mackinac	0	8	0.14%	2,086,462	0.65%	42
Newberry	1	Schoolcraft	0	3	0.09%	548,011	0.24%	19
Oaks	2 & 4	Manistee	318	435	4.15%	21,958,475	3.12%	571
Oaks	2 & 4	Mason	0	18	0.11%	2,946,632	0.33%	81
Oaks	2 & 4	Benzie	0	7	0.09%	705,835	0.12%	17
Oaks	2 & 4	Lake	0	2	0.06%	448,515	0.14%	21
Ojibway	1	Gogebic	213	279	3.88%	13,359,692	3.06%	379
Ojibway	1	Ontonagon	0	2	0.09%	527,058	0.36%	11
Ojibway	1	Iron	0	2	0.04%	410,915	0.12%	12
Ojibway	1	Houghton	0	1	0.01%	162,506	0.02%	2
Parnall	1	Jackson	283	378	0.49%	19,090,747	0.38%	511
Parnall	1	Ingham	0	12	0.01%	1,186,349	0.01%	19
Parnall	1	Hillsdale	0	3	0.02%	785,873	0.06%	17
Parnall	1	Lenawee	0	4	0.01%	778,154	0.03%	16
Saginaw	1, 2, & 4	Saginaw	295	409	0.36%	16,885,238	0.27%	514
Saginaw	1, 2, & 4	Bay	0	23	0.05%	3,639,601	0.11%	83
Saginaw	1, 2, & 4	Midland	0	9	0.02%	1,801,818	0.05%	21
Saginaw	1, 2, & 4	Tuscola	0	4	0.02%	1,067,366	0.07%	23

St. Louis	4	Gratiot	324	395	2.06%	19,011,419	1.59%	524
St. Louis	4	Isabella	0	25	0.06%	2,162,574	0.10%	71
St. Louis	4	Midland	0	12	0.02%	2,138,204	0.06%	32
St. Louis	4	Montcalm	0	8	0.03%	1,708,801	0.10%	37
Thumb	2	Lapeer	310	391	1.11%	20,826,013	0.66%	577
Thumb	2	Genesee	0	26	0.01%	3,527,315	0.03%	67
Thumb	2	Tuscola	0	5	0.03%	1,049,120	0.07%	19
Thumb	2	St. Clair	0	2	0.00%	477,709	0.01%	6
Women's Huron Valley	1, 2, & 4	Washtenaw	554	931	0.33%	44,018,821	0.25%	1,015
Women's Huron Valley	1, 2, & 4	Wayne	0	-16	0.00%	5,334,216	0.01%	8
Women's Huron Valley	1, 2, & 4	Livingston	0	23	0.03%	4,070,769	0.05%	55
Women's Huron Valley	1, 2, & 4	Jackson	0	9	0.01%	2,276,731	0.05%	40
Woodland	1 & 4	Livingston	302	401	0.45%	21,893,353	0.25%	530
Woodland	1 & 4	Genesee	0	10	0.00%	1,385,729	0.01%	21
Woodland	1 & 4	Shiawassee	0	3	0.01%	719,349	0.03%	9
Woodland	1 & 4	Ingham	0	2	0.00%	658,153	0.01%	1

Section 3: Career Pathways for Officers in an Evolving Criminal Justice System

As discussed in the background section, states are increasingly adopting alternatives to incarceration as a response to crime. The purpose of this section is to identify some of the major criminal justice initiatives at the state level and how these policies might represent new career pathways for officers. The idea is that with additional skill training, officers should be well-qualified for these emergent roles. Our intent is to take this discussion beyond standard officer training and locate positions tangential to the officer role that have promise.

When structured properly, training benefits all stakeholders. Training is mandatory for recruit orientation, and an ongoing program that upgrades veteran officer knowledge will continually refresh concepts and improve job performance.[9]

From the employer perspective, effective training enhances workforce productivity and professionalism. Training also communicates to employees that an officer position is a professional career with the potential for upward mobility. In this way, training can help a department recruit new hires, retain staff and reduce turnover costs.

Officers also benefit from training by increasing officer effectiveness, reducing situation uncertainty, and improving safety for prison staff and inmates. Moreover, higher officer qualifications are a form of insurance against job layoffs by making dislocated officers more attractive to new employers.

To gain insight on the changing career patterns in criminal justice, the research team contacted officials and experts in states that have experienced a decline in inmate populations over recent years. The goal was to inquire about the causes of the decline and the effect on employment in the criminal justice system (see Appendix A for the survey questions). These data were used to identify areas of the corrections industry that will potentially expand, and thus present opportunities for officers. Each of the following subchapters describes an emergent policy area that will likely alter the occupational mix within the criminal justice system; reducing the demand for officers yet at the same time creating new opportunities in tangential fields. At the end of each subchapter is a table that lists career positions that are expected to grow as a result of the policy.

Career positions are then categorized and linked to O*Net Online. O*Net Online is a public resource that provides guidance on job attributes such as work environment, technical skills and education requirements. Further, O*Net forecasts the demand for careers and provides links to educational institutions that offer coursework for achieving necessary qualifications. This linkage was prepared to guide stakeholders that wish to locate new opportunities for corrections officers. We encourage users of this report to follow the suggested links to O*Net and explore career options.

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[9] For an example of an inventory of officer skill training, see the Commission on Correctional Peace Officer Standards and Training run by the State of California.at https://cpost.ca.gov/

Local and State Realignment

Criminal justice systems involve coordination between local, state, and occasionally, federal authorities. Certain cases, such as those dealing with constitutional matters, are tried in federal court. Most criminal cases are adjudicated in locally situated (e.g. county) state courts. Defendants detained by a local police department are typically brought to a state court for adjudication. Defendants accused of egregious crimes either await trial in a local jail or they are released on bail.

Defendants found guilty of crimes are punished with fines, incarceration, or both. Offenders that receive short-term prison sentences (e.g. less than 1 year) often stay in local jails. Whereas offenders with longer sentences generally serve their terms in state prisons. Local jails have fewer services for vocational rehabilitation, visitation, exercise, and so forth, as compared to state prisons.

Municipal and county jails thus supply state prisons with inmates. It follows that any rule that affects the flow of inmates between local and state agencies can affect the size of the state prison population. For instance, one way to reduce the state prison population is to shift detention responsibility to local jails. California offers a prime example for how this can happen through a local and state realignment.

To address a Supreme Court decision on prison overcrowding,[10] California passed the Public Safety Realignment Act in 2011.[11] The new law created additional sentencing options other than straight prison time and made fundamental changes to the way state parole and county probation operate. Protocol was changed so that some low-level offenders with less serious, non-violent, and non-sexual charges were sentenced to county jail rather than state prison for sentences of up to three years. The act changed procedures around the post-release supervision of state prisoners, shifting supervision for many lower-level offenders from state parole officers to county probation officers.

In short, California's criminal justice agencies at the local government level were handed a greater burden to house and rehabilitate offenders (Wootton, 2016). The counties became more responsible for programming and services, including monitoring the jail population and handling post-release outcomes (PPIC, 2018). Realignment measures, plus sentencing reform reduced prison overcrowding in California without an appreciable increase in crime (PPIC, 2018). Like Michigan, California had a capacity crisis. Relief was found by tapping into local jail capacity.

Realignment is a state-level policy that is not systematically documented in the literature. Using the California example, it can be predicted that the environment for realignment is favorable when state-level prison populations exceed facility capacity, while local jails are under-utilized. Politics events can trigger realignment policy. In the California case, pressure from a lawsuit facilitated the reform.

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[10] Brown v. Plata, 131 S. Ct. 1910, 1923 (2011)
[11] Assembly Bill 109 of 2011.

Realignment does not create a demand for new occupations as much as it shifts the demand for jobs to local governments. Displaced officers from state facilities with knowledge in these areas should be strong candidates for employment at the local level. It is therefore advisable that realignment is accompanied with negotiated transfer rights, or incentives created by the state, to encourage the movement of officers from state to local positions.

Because state realignment does not necessarily alter the occupational mix of the criminal justice system, the potential career paths and O*Net links listed in the table below largely encompass positions that can extend the careers of officers in many contexts that involve custody or security roles.

O*Net Code	Occupation Title
21-1092.00	Probation Officers and Correctional Treatment Specialists
23-1011.00	Lawyers
25-1111.00	Criminal Justice and Law Enforcement Teachers, Postsecondary
33-3021.02	Police Identification and Records Officers
33-3021.03	Criminal Investigators and Special Agents
33-3021.05	Immigration and Customs Inspectors
33-3051.00	Police and Sheriff's Patrol Officers
33-9032.00	Security Guards
33-9099.02	Retail Loss Prevention Specialists

Reentry Programming

One approach for reducing an inmate population is to adopt practices that improve the odds that ex-offenders successfully reenter free society. The deterrent theory of criminal justice assumes that former inmates will alter their behavior to avoid re-incarceration. Unfortunately, many ex-offenders have difficulty securing a community and economic foothold after release, and in frustration return to crime. National statistics indicate that over half of former convicts are rearrested within two years after release (James, 2015: Figure 3). Accordingly, states are turning to various types of reentry programs in order to reduce recidivism rates.

The idea that prisons should rehabilitate, not simply punish, traces to strain theory. A seminal essay of strain theory postulates that criminal behavior "… may be viewed as a symptom of disassociation between culturally defined aspirations and socially structured means" (Merton, 1938: 674). For strain theory, ex-offenders that fail to find a legal path for success are likely to fall back into criminal activity as a way to achieve socially defined status.

A shift from retributive ideals to rehabilitative practice in dealing with offenders is contrary to the tough on crime approach from the early 1970s. As prison populations soared during the 1980 to 2000 period, rehabilitative programs for inmates were phased out. In recent decades, though, rehabilitation has witnessed a rebirth. States have increased educational, vocational, and other reentry programming to reduce the institutionalization of offenders, prepare them for reclamation to society after release, support their successful reintegration in society and prevent recidivism (Colgan, 2006).

Reentry programs can conceptually span three phases: (1) within prison training and education to prepare offenders for reintegration into society, (2) programs that connect ex-offenders with services immediately after they are released, and (3) long-term support and supervision for ex-offenders to help them permanently settle into communities (James, 2015).

Offender reentry programs vary widely in range, scope, and methods. According to research, the best-designed programs comprehensively address several key barriers to reintegration, including: inadequate housing, lack of education or job training which impairs employment, substance abuse and lack of family support (BJA, 2005).

One career option for officers is to leverage their understanding of and ability to work with the inmate population to become reentry specialists. Rehabilitative programs within prisons are potential career opportunities for officers employed as both direct public system hires or with contract agencies. Further, qualified officers may find employment with providers of services that assist ex-offenders in social acclimatization. Given the industry shift toward rehabilitation, jobs with post-release services should increase. The following sections discuss effective types of programs that are expected to expand with the growth of reentry programming.

GED and Post-Secondary Education

One victim of the tough on crime era was post-secondary, institution-based education. Prison education cuts were achieved through the diminution of grant programs that had been available for eligible inmates. The *Violent Crime Control and Law Enforcement Act* (1994) effectively

ended virtually any remaining post-secondary programs in prisons. Nearly a generation later, the *Second Chance Act* (2008) restored funds for educational programming.

Research has shown that GED and post-secondary education improves rehabilitation (Davis, et al., 2013; Esperian, 2010; Vacca, 2004). The Vera Institute of Justice (2017) reported that as of January 2017, more than 28 states operated college programs. A meta-analysis by RAND concluded that offenders that participated experienced a reduction in recidivism rates by roughly 43% (Davis, et al, 2013). The research asking whether the cost of education is offset by the benefits of lower crime and recidivism suggests a positive return on investment (CSN, 2016; Duwe, 2017).

Vocational Training

The *2005 Census of State and Federal Correctional Facilities* reported that 52% of reporting prisons offered vocational programs for inmates (Davis, Bozick, and Steele, n.d.). Vocational skills most commonly taught inside prisons include air conditioning, auto detailing, barbering, building maintenance, carpentry, custodial maintenance, electrical trades, food service/culinary arts, heating, horticulture, masonry, painting, plumbing, upholstery, ventilation, and welding. Effective vocational training usually includes an on-the-job experience component, which is most often made available through work release.

Vocational training is dependent on funding and the interests of state officials. In 2016, Vocational Village, run by the Michigan Department of Corrections, began offering state and nationally recognized certificates in numerous skilled trades. Inmates earn the certificate after completing classroom instruction and structured training (MDOC, 2018).

Vocational training has produced modest effects on reducing recidivism, as well as positive effects on cost avoidance (Duwe, 2017). Research in Minnesota suggests that work release had a large positive effect on ex-offender ability to secure post-release employment, measured by the number of hours and total wages. Work release estimated return on investment in Minnesota was modest, but positive (Duwe, 2015).

Cognitive Behavioral Therapy

Cognitive behavioral therapy (CBT) has been used to treat a wide range of disorders. CBT is based on the theory that maladaptive thought processes contribute to anti-social behavior. The intervention aims to improve problem-solving skills in response to social interactions and external stimuli. Intervention techniques require patients to confront and reassess pre-existing thought patterns through activities such as role play, diaries and skill-building exercises.

CBT has been applied to criminal behavior to deal with disorders such as anger management, sex offences and drug dependency (Lösel, and Schmucker, 2005). CBT can take place within the prison or in the community after release and has generally been found to reduce recidivism and improve prison conduct, although research findings are not universal and may depend on context and program details. In terms of program costs, CBT has shown to yield impressive returns on investment (Duwe, 2017).

Reintegration

The most general post-release resources for ex-offenders involve case planning, mentoring and supervision. Assistance with job and life skill training, obtaining education and/or employment, community service opportunities, physical and mental health treatment and housing all ease the transition to the community. For instance, Prison Fellowship, the nation's largest nonprofit dedicated to offenders, pre- and post-release, promotes leadership development, sober living, and life skills while making connections to community resources to streamline transitions back into society. Another example is the New Jersey State Parole Board Halfway Back program that offers short-term housing for released inmates while providing them with personalized services focused on substance abuse treatment, life skills training, job preparation, vocational skills training, academic assistance and financial management (Ostermann, 2009).

A review of entry programs concluded that life skill and substance abuse treatment or prevention were the most common types of programs (Wright, et al., 2014). Education, residential treatment and aftercare provided the most effective outcomes and the least mixed or negative outcomes. Aftercare that included some sort of housing element was found to have the greatest impact on reduced recidivism and offender relapse.

Reentry programming has shown to be a cost-effective way of reducing recidivism. In general, reentry programming links offenders with prosocial support services, such as job and housing assistance, educational testing and assessment, life skills training, alcohol and substance abuse counseling and treatment, mentoring, and spiritual guidance. These services can be provided by the public criminal justice system or offered by community and government social service and faith-based organizations.

One career path for corrections officers is to become proficient as a reentry specialist. Reentry programming skills apply within the institution, and for other facets of public service, including preventive community services and specialized education. Formal career pathways that prepare officers for roles as reentry specialists are listed in the table below along with the appropriate O*Net link.

O*Net Code	Occupation Title
11-3131.00	Training and Development Managers
11-9151.00	Social and Community Service Managers
13-1151.00	Training and Development Specialists
19-3031.02	Clinical Psychologists
21-1011.00	Substance Abuse and Behavioral Disorder Counselors
21-1015.00	Rehabilitation Counselors
21-1023.00	Mental Health and Substance Abuse Social Workers
21-1093.00	Social and Human Service Assistants
25-1081.00	Education Teachers, Postsecondary
25-1194.00	Vocational Teachers, Postsecondary
25-3011.00	Adult Basic and Secondary Education and Literacy Teachers and Instructors
39-9041.00	Residential Advisors
43-4061.00	Eligibility Interviewers, Government Programs

Bail Reform

The intent of bail reform is to address an area of class inequity in the criminal justice system by making pre-trial detention independent of the defendant's finances. In states with a traditional cash bail system, most defendants are allowed to post bail and return home to await trial. Usually the wealthy have resources to post bail. Persons with assets, but insufficient cash might secure a bail bond, which comes with a surcharge. Rates vary by state, but 10 percent of face value is common. Poor defendants that lack collateral to secure a bail bond usually remain in local jail until the hearing, which can interfere with family obligations and jeopardize employment. In this way, the cash bail system imposes a regressive tax on persons subject to the criminal justice process. The objective of bail reform is to make this aspect of the criminal justice system class neutral.

A progressive version of bail reform replaces the cash system with an assessment of each defendant on the likelihood that they pose a flight or repeat crime risk. Risk is estimated with the aid of a data analytics tool, which can be developed in-house but more often is provided by an external vendor. Using the tool, a presiding judge assigns defendants into a pre-trial category, ranging from release with no restriction to confinement at home with an electronic monitoring device. Pre-trial jail detention remains an option that is limited to those deemed too risky to be released. Under this system, no bail is necessary.

The State of New Jersey transitioned away from a cash bail system from 2015 to 2017. The reform has received praise from the *Pretrial Justice Institute*, which advocates for class-neutral criminal justice policy.[12] In New Jersey, pre-trial detainees declined by an estimated 35% from January 1, 2015 to January 1, 2018 (Grant, 2018).

New Jersey's bail reform faces financial and operational challenges. Monitoring pre-trial defendants in the community is expensive, and eliminating cash bail means that counties lose revenue from bail forfeitures (Grant, 2018). Bail reform thus comes with a financial cost, which may impede diffusion.

The key to bail reform is an accurate risk assessment tool. Political leaders might hesitate to embrace bail reform if they suspect that known examples of assessment failure can be used to harm their electoral standing. Finally, for obvious reasons, the bail bond lobby opposes this reform. These political headwinds might also slow the adoption of bail reform. Nonetheless, bail reform does appear to be moving forward. California followed New Jersey and enacted bail reform in August, 2018.[13]

As New Jersey has shown, where this type of bail reform is implemented one can expect a significant decline in inmates at local jails. Excess capacity at local jails can translate to fewer inmates in state penitentiaries if state-local realignment policies (see subchapter titled "Local and State Realignment") accompany bail reform, and the excess holding capacity at local jails is used to supplement state prison capacity for defendants found guilty of misdemeanors or lesser felonies.

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[12] http://www.pretrial.org/

[13] California Senate Bill 10, August 28, 2018.

Bail reform offers very little new job prospects at the state level because the policy is applied in county or municipal courts. At the local level, professionals are needed to implement bail reform, especially in relation to monitoring pre-trial defendants, and these positions might represent new opportunities for officers. Relevant occupations and O*Net references are in the table below.

O*Net Code	Occupation Title
21-1092.00	Probation Officers and Correctional Treatment Specialists
21-1093.00	Social and Human Service Assistants
33-3021.02	Police Identification and Records Officers
33-3051.00	Police and Sheriff's Patrol Officers
43-4031.01	Court Clerks
43-9061.00	Office Clerks, General

Problem-Solving Courts

The U.S. criminal justice system is a patchwork quilt of laws and practices across states and municipalities that are constrained by boundaries set by constitutional frameworks. One merit to this form of permissive federalism is that it allows for considerable state and local experimentation. In recent decades, states have used this latitude to reduce inmate populations by offering rehabilitative assistance to targeted populations of criminal defendants as an alternative to incarceration.

Giving defendants a supervised treatment option represents a nuanced approach to dealing with crime. Under the traditional method, behavioral "corrections" were based on deterrent theory, where the penalty (fines, incarceration, and so forth) was the primary reform mechanism. Regulation of anti-social behavior was achieved by adjusting the harshness of sentencing. Under deterrent theory, potential perpetrators are assumed to have an awareness of the consequences of committing anti-social acts, and accordingly make behavioral adjustments to avoid penalties, which includes refraining from crime altogether.

In contrast, the treatment approach admits that some crimes are induced by factors that defy rational calculus because they are driven by physiological or psychological traits. For example, a large share of crime is connected with drug and alcohol addiction. The treatment approach posits that in such cases, attempts to correct anti-social behavior will likely fail without addressing drug and alcohol dependency. Mental illness is similarly associated with anti-social behavior, including crime. Locking mentally ill perpetrators in prison does take them off the streets, but a prison is rarely an optimal environment for treating mental illness.

The treatment model targets the underlying causes of crime through medical, mental health and counseling services, typically by applying some combination of structured monitoring, testing, and positive reinforcement (e.g. graduation ceremonies). Offenders with extenuating conditions are released back into the community under a supervised rehabilitation program, and thus given a "second chance," often with the incentive of expunging the original charge from an offender's record upon completion.

Central to this area of criminal justice reform are problem-solving courts (Marlowe, Hardin and Fox, 2016). Problem-solving courts develop an expertise on a crime-related affliction, and work in concert with government services and community organizations to create and follow through with a rehabilitation plan. The following sections outline three types of specialty courts, in order of proliferation: drug courts, mental health courts and veteran courts.

Drug Courts

Changing societal attitudes toward drug use has contributed to the decline in state inmate populations. A visible reflection of these changes is marijuana decriminalization at the state and municipal level. As of June 2018, 9 states and the District of Columbia permit recreational usage, and 29 others allow consumption for medical purposes.

Marijuana decriminalize, however, is a small part of a broader reconsideration of the utility of long sentencing terms for drug offences. At least three factors contribute to this trend: (1) the rising cost of incarceration, (2) the recognition that harsh drug sentencing laws have disparately targeted minorities, and (3) an evolution in thinking about the proper public response to drug addiction. Regarding the latter, states are increasingly finding merit in adopting clinical

treatment strategies as an alternative to incarceration. Generally, this option is reserved for non-violent offenders.[14]

To an extent, the wave of sentencing reform for drug-related offenses is a rebuke to the "tough on crime" era that began in the 1970s. New York State is illustrative. To curb rising drug crime, particularly heroin trafficking, New York enacted the Rockefeller Drug Laws in 1973. The law undermined judicial discretion by imposing higher minimum sentences for illicit drug possession and was especially punitive for repeat offenders. After the law, New York's prison ranks swelled and the composition of the incarcerated population dramatically changed. In 1970, an estimated 9 percent of inmates committed a drug offence; by the late 1990s this offender group was over 30 percent of the state's custody population (Kellam and Bates, 2014).

New York's retreat from punitive drug sentencing began in the mid-1990s when district courts started experimenting with treatment intervention. In 1995 the first drug court (a.k.a. judicial diversion court) opened in the City of Rochester, and other municipalities followed. What distinguished drug courts from traditional courts was an assessment of the likelihood that a perpetrator would respond to professional treatment and avoid a relapse. In cases where the presiding judge decided that intervention was promising, the offender was placed under a court supervised plan, referred to local treatment providers and monitored for compliance.

In 2009 New York passed the Drug Law Reform Act, which reversed the Rockefeller Drug Laws by overturning mandatory sentencing and returning discretion to the judges. Mechanisms were also established for previously convicted drug offenders to appeal for re-sentencing, and the drug court model was implemented state-wide.

Drug courts are increasingly popular nationwide (Marlowe, Hardin and Fox, 2016) and have shown success in Michigan (Michigan Supreme Court, 2017). The DOJ reported that there were over 3,100 drug courts in the U.S. by 2017, half of which were dedicated to adult offenders (DOJ, 2017). A national list of drug courts has been compiled by the National Drug Court Resource Center.[15]

Drug courts have received Department of Justice endorsements across administrations (DOJ, 1997, 2017). As for economic performance, estimates show that while drug or alcohol treatment requires an up-front investment, in the long run this option is less costly than incarceration (Waller, Carey, Farley, and Rempel, 2013). Drug courts also have been found to reduce recidivism (Latessa and Reitler, 2015). Program success along with bi-partisan support suggests that drug courts will expand in the criminal justice system.

Mental Health Courts

Adopting the drug court model, mental health courts specialize in screening defendants for mental illnesses, and where applicable, offering judicially supervised treatment as an alternative to incarceration. Mental health courts are a response to the disproportionately large numbers of inmates with mental illness. Like the drug courts, the goal is to correct anti-social behavior and reduce the inmate population with professional services and court monitoring. One difference

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[14] For instance, Ohio statute 2951.041, *Intervention in lieu of conviction*, lists the following offenses in which a defendant can appeal for treatment: unauthorized use of a vehicle, theft, forgery, passing bad checks, misuse of credit cards and nonsupport or contributing to nonsupport of dependents.

[15] https://ndcrc.org/

between mental health and drug courts is the former is more likely to admit defendants charged with felonies or violent crimes (Almquist and Dodd, 2009).

Michigan piloted mental health courts in 2009, and by 2014 had 20 active programs.[16] Like the drug courts, participants in Michigan's mental health courts had lower rates of recidivism than non-participants (Michigan Supreme Court, 2017). Studies beyond Michigan indicate similar results on recidivism (Marlowe, Hardin, Fox, 2016). In terms of economics, the results are mixed. In general, mental health courts show a slower rate of investment return than drug courts (Marlowe, Hardin and Fox, 2016).

Veteran Courts

Veteran courts encompass drug court and mental health court dimensions, but cater to military veterans, and thus include specializations veteran-specific conditions such as post-traumatic stress disorders or traumatic brain injuries. In addition, veteran courts place greater emphasis on job placement than other problem-solving courts.

To encourage compliance, veteran courts in Michigan match participants with other veterans:

> "The effectiveness of Michigan's 25 veterans' treatment courts (VTCs) is due, in large part, to the unique component of the volunteer veteran mentors. Mentors are matched to participants based on war or conflict, rank, and branch of service, which has proven to be the most important criterion for developing a lasting bond. Because veteran mentors have had some of the same experiences, VTC participants confide in their mentors, are open to discussions, and are accepting of their help. That help comes in the form of assistance in navigating the VA, transportation to appointments, support at court review hearings, and much more." (Michigan Supreme Court, 2017)

Thus, in Michigan, the offender receives assistance from a veteran that had a shared experience and can assist in navigating benefits available from the Department of Veterans Affairs and Veterans Benefits Administration.

Activities of any problem-solving court are more complicated than a traditional court due to the added responsibility of identifying offenders for whom treatment is promising, and then coordinating a successful rehabilitation. The functions are multi-faceted:

> "Drug courts promote recovery through a coordinated response to offenders dependent on alcohol and other drugs. Realization of these goals requires a team approach, including cooperation and collaboration of the judges, prosecutors, defense counsel, probation authorities, other corrections personnel, law enforcement, pretrial services agencies, TASC programs, evaluators, an array of local service providers, and the greater community." (DOJ, 1997: 1)

Traditional courts are staffed with judges, district attorneys, public defenders, sheriffs, probation officers, forensic directors, and administrative staff. In addition to these jobs, specialty courts require case managers, drug addiction and mental health specialists, and clinical social workers. Moreover, referral agencies need professionals that understand the rehabilitation process. The

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[16] http://courts.mi.gov/Administration/admin/op/problem-solving-courts/pages/mental-health-court.aspx

table below provides a list of relevant career pathways for jobs with problem-solving courts, along with the appropriate O*Net reference.

O*Net Code	Occupation Title
11-9111.00	Medical and Health Services Manager
11-9151.00	Social and Community Service Managers
19-3031.02	Clinical Psychologists
19-3031.03	Counseling Psychologists
21-1011.00	Substance Abuse and Behavioral Disorder Counselors
21-1012.00	Educational, Guidance, School, and Vocational Counselors
21-1014.00	Mental Health Counselors
21-1015.00	Rehabilitation Counselors
21-1023.00	Mental Health and Substance Abuse Social Workers
21-1092.00	Probation Officers and Correctional Treatment Specialists
21-1093.00	Social and Human Service Assistants
21-1094.00	Community Health Workers
25-3011.00	Adult Basic and Secondary Education and Literacy Teachers and Instructors
29-2053.00	Psychiatric Technicians
33-1021.00	Administrative Law Judges, Adjudicators, and Hearing Officers
43-4031.01	Court Clerks

Technology in Corrections

For workers in any industry, new technology can be double-edged. On the one hand, technology can usefully reduce mental and physical stress, minimize fatigue related error and improve workplace safety. On the other hand, technology can be used to undermine worker autonomy, judgement or craft. This tension has deep historic roots, and for labor, in most cases *preventing* the introduction of technology is not the correct path, because it might handicap a firm or industry (Noble, 2011). Instead, a more constructive approach is to establish terms to *regulate* the application of technology in the workplace in order to positively affect environmental conditions and for workers to obtain some control over technology to safeguard professional autonomy (Shaiken, 1985).

Technology is deployed in prisons to increase productivity, enhance security and for inmate rehabilitation. One potential career path for corrections officers is to develop skills in prison technologies. Technical skill acquisition grows the value of officers within the system, and also improves officer job prospects in the event of a layoff. The following subsections present three technical areas that should expand in corrections.

Surveillance

Surveillance technologies within prison facilities are becoming more sophisticated. Contraband detection has evolved from a traditional metal detector to over 100 products specific for person-borne, vehicle-borne, and environmental detection (Koslover, Hung, Babin and Mills, 2017). By 2016, New York had provided all 54 state-run facilities with brand new contraband detection technologies (Chapman, 2016).

Unmanned aircraft systems (UASs), or drones are becoming popular. UASs are used for two general purposes: operational and defensive. The former concerns the ability to surveil remote areas, to supplement manned patrols, and to enhance responsiveness with increased safety during riots. South Carolina DOC began using drones in 2018 for surveillance, making it the first prison system to do so.

Defensively, drones are of growing importance to detect and intercept hostile drones outside prison walls. Drones have been illegally used to transport contraband to inmates. By 2018, New Jersey, North Carolina, and South Dakota had legislation prohibiting UASs from being flown in the vicinity of prisons, and other states are likely to follow (Shinkle, 2018). Drone detection using radio frequency (i.e. radar), audio and thermal methods should increase with time (Koslover, Hung, Babin and Mills, 2017).

Biometric Identification

Biometric characteristics as measured by fingerprint, facial, iris, palm, and voice recognition provide a more secure method of managing the movement of persons than manual methods. Each type of measurement relies on its own distinct technical method.

The U.S. Naval Consolidated Brig in Charleston, South Carolina, in collaboration with the National Institute of Justice, spent $1 million testing the Biometric Inmate Tracking System (BITS), which replaced the manual system with a computer-based system using open source

software. In tests, it took an average of 17 minutes to determine an inmate was out of place compared with the average of 43 minutes for corrections officers under the manual model (Miles & Cohn, 2006). Beyond inmate tracking, applications include: managing inmate property, registering inmate commissary transactions, improving the accuracy of inmate records, and for visitation and personnel security.

Teleconferencing

Teleconferencing is a versatile and cost-effective communication method that is expanding in corrections. Visitation is one area of prison operations that is changing due to the use of video conferencing. Essentially, teleconferencing is beginning to replace or supplement the traditional means of ultra-restricted in-person visits. The Vera Institute of Justice reported that as of 2016, there were 15 states that had already implemented video visitation, while another 17 were in the process of employing it (Digard, diZerega, Yaroni, and Rinaldi, 2016).

Teleconferencing can increase security by reducing the number of persons entering the facility. Moreover, from a rehabilitation perspective, inmates that are housed far from their families and friends can more frequently engage in these interpersonal relationships. Teleconferenced visitation would allow for longer visitation times and interactions with extended members of the family, including children, who are not permitted in most correctional facilities. Maintaining inter-personal relations, in particular, preventing the breakdown of the family structure has been found to be important to reduce recidivism (Klein, Alexander, & Parsons, 1977).

Additionally, teleconferencing for use with medical services, referred to as "telemedicine," can increase the availability and efficiency of inmate healthcare. Typically, a prison offers clinical physical, psychological and dental care onsite. However, if an inmate requires care beyond the capacity of the in-house clinical staff, corrections systems turn to hospitals and specialists that practice outside the prison walls. With telemedicine, it can be possible for an external healthcare provider to diagnose a patient, which avoids the cost of transporting an inmate to a regional healthcare provider. With the country's highest incarceration rate, Texas has been a national model of telemedicine, and uses telemedicine to treat all behavioral health issues, roughly 20% of primary care visits, and 10% specialist visits (CTeL, 2016).

As technological advancements increase within corrections, so does the potential for the reclassification of the corrections officer role to encompass prison-related technology. Advances in surveillance methods, biometrics, and teleconferencing have demonstrated a capacity to increase prison efficiency, enhance safety and contribute to the rehabilitation and health of inmates. Expect these forms of technology to expand in the criminal justice system. Officers that develop skills to operate and maintain these technologies increase their value within the prison system, and also develop credentials for employment with firms that serve the corrections industry. The table below lists potential occupational titles with the appropriate O*Net code.

O*Net Code	Occupation Title
11-3021.00	Computer and information Systems Managers
13-1199.02	Security Management Specialists
15-1122.00	Information Security Analysts
15-1131.00	Computer Programmers
15-1132.00	Software Developers, Applications
17-3024.01	Robotics Technician
19-4092.00	Forensic Science Technicians
27-4011.00	Audio and Video Equipment Technicians
33-3021.06	Intelligence Analysts
49-2093.00	Electrical and Electronics Installers and Repairers
49-2098.00	Security and Fire Alarm Systems Installers

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Appendix

State-Level Survey

We contacted a select group of states where the inmate population has either declined or plateaued. Our outreach had three goals: (1) to learn about state-level policies aimed at reducing inmate populations; (2) to understand how these policies are affecting the occupational mix within criminal justice systems, and (3) to request facility-level data on inmates and correction staff in order to measure the relationship between the inmate population and officer counts.

Respondent

Outreach included contacts with departments, organizations and academic institutions in New York, California, Texas, Ohio New Jersey, Colorado and Connecticut.

The target respondent is an employee of a state correction department that can officially discuss state policies. This might be someone within the public relations unit, someone in research, or a designated administrator.

Questionnaire

The questionnaire was administered in an unstructured format to allow for respondent elaboration and for the survey administrator to probe with follow-up questions. The survey form includes the following questions:

1. Beginning in (year), the State of (state) has shown a marked slowdown (or decline) in the state's inmate population. What explains the pattern?

2. Were there any specific state policies that contributed to this trend? Please describe the policies.

3. Was the policy change statutory, administrative, or something else?

4. Are there any published evaluations of the policy? Please send link or pdf.

5. For each policy: how has this changed the criminal justice system?
   a. Do you see or anticipate a decline in demand for certain jobs because of the policy? What are those jobs?
   b. Do you see or anticipate an increased demand for certain jobs because of the policy? What are those jobs?

Part of this effort is to understand the relationship between the number of inmates and the need for correction officers and other prison staff. We ask for the following annual data from 1980 to present:

1. A description of each state detention facility (capacity, security, age)
2. The number of inmates per facility
3. The number of employees per facility
4. The number of officers per facility

Table A1: List of Michigan Prisons, Capacity, and Historical Notes

Facility	Capacity	Year Opened	Year Closed	Explanation for Closure
Michigan Reformatory (RMI)	1202	1877		Closed in 2001 with the opening of IBC; reopened in 2007 with the closing of RCF
Marquette Branch Prison (MBP)	8482	1889		
State Prison of Southern Michigan (SMI)	4625	1926	2001	Closed due to budgetary issues; Cell Block 7 Museum open to public to generate revenue for RGC and JCF on
Richard A. Handlon Correctional Facility (MTU)	768	1958		
Muskegon Correctional Facility (MCF)	589	1974	2018	Closed due to declining population
Huron Valley Women's Facility (HVW)	390	1977	2001	Complex dissolved to create WHV
Riverside Correctional Facility (RCF)	272	1977	2006	Closed due to budgetary issues
Dunes Correctional Facility (DCF)	400	1978	1991	
Kinross Correctional Facility (KCF)	456	1978		
Phoenix Correctional Facility (XCF)	311	1980	1991	
Huron Valley Correctional Facility (HVM)	411	1981	2009	HVC, HVM, and HVW consolidated into Huron Valley Complex
Florence Crane Correctional Facility (ACF)	298	1985	2010	Closed due to declining population
Deerfield Correctional Facility - Ionia Temporary Facility (ITF)	640*	1985	2008	Closed due to budgetary issues
Robert G. Cotton Correctional Facility (JCF)	864	1985		
Lakeland Correctional Facility (LCF)	500	1985		

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Facility	Capacity	Year	Notes
Western Wayne Correctional Facility (WCF)	633	1985	2003	Originally opened as Detroit House of Correction in 1931, part sold to MDOC in 1979, DeHoCo closed and reopened as WCF in 1985; inmates transferred to WHV
Robert Scott Correctional Facility (SCF)	432	1986	2008	Closed due to budgetary issues; inmates transferred to WHV
Ionia Correctional Facility (ICF)	385	1987		
West Shoreline Correctional Facility - formerly Muskegon Temporary Facility (MTF)	640*	1987	2018	Closed due to declining population
Boyer Road Correctional Facility - formerly Carson City Temporary Facility (OTF)	640*	1987		Consolidated with DRF 2009
Thumb Correctional Facility (TCF)	480	1987		
Straits Correctional Facility - formerly Chippewa Temporary Facility (KTF)	640*	1988		Consolidated with URF 2009
Charles E. Egeler Correctional Facility (SMN)	984	1988	2001	Reopened as RGC in 2002
Parr Highway Correctional Facility - formerly Adrian Temporary Facility (ATF)	640*	1989		Consolidated with ARF 2009
Carson City Correctional Facility (DRF)	612	1989		
Hiawatha Correctional Facility (HTF)	960	1989	2009	Closed due to budgetary issues
Ernest C. Brooks Correctional Facility (LRF)	612	1989		
Chippewa Correctional Facility (URF)	612	1989		
Alger Correctional Facility (LMF)	428	1990		
Standish Correctional Facility (SMF)	440	1990	2008	Closed due to budgetary issues
Central Michigan Correctional Facility (STF)	640	1990		

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Facility	Capacity	Opened	Closed	Notes
Gus Harrison Correctional Facility (ARF)	612	1991		
Ryan Correctional Facility (RRF)	612	1991	2012	Converted into Detroit Reentry Center (DRC) to house growing number of parolees in Detroit
Oaks Correctional Facility (ECF)	456	1992		
Baraga Correctional Facility (AMF)	440	1993		
Macomb Correctional Facility (MRF)	624	1993		
Saginaw Correctional Facility (SRF)	612	1993		
Huron Valley Center (HVC)	400	1994	2009	HVC operated by MI Dept. of Community Health
Mound Correctional Facility (NRF)	1044	1994	2012	Closed due to budgetary issues; reopened in 2013 as Detroit Detention Center (DDC) as central lockup for Detroit - is staffed by MDOC and Detroit Police Department
Parnall Correctional Facility (SMT)	1455	1994		Created from SMI (used same grounds, but separate facility)
Newberry Correctional Facility (NCF)	836	1996		
Cooper Street Correctional Facility (JCS)	864	1997		
Southern Michigan Correctional Facility (JMF)	616	1997	2005	Closed due to budgetary issues
St. Louis Correctional Facility (SLF)	1294	1999		
Ojibway Correctional Facility (OCF)	962	2000		Closure announced in August 2018 due to declining population.
Pine River Correctional Facility (SPR)	962	2000		Consolidated with STF 2010
Bellamy Creek Correctional Facility (IBC)	1470	2001		
Pugsley Correctional Facility (MPF)	952	2001	2016	Closed due to declining population
Charles E. Egeler Réception & Guidance Center (RGC)	2136	2002		Opened as SMN in 1988

Woodland Center Correctional Facility (WCC)	110	2009
Women's Huron Valley Correctional Facility (WHV)	832	2009	Opened with female inmates from HV Complex and closures of women-only facilities SCF and WCF

Notes: RMI, MBP, SMI, MTU, MCF capacities are for 1976; the capacities on the remainder of the facilities represent that during the year in which it opened; * = Opened as a temporary facility.