Reducing the Cost of Incarceration in New York State

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Executive Summary

The New York State Department of Corrections and Community Supervision spends about $3.3 billion annually to operate the state's prisons and correctional services. About two thirds of this spending covers personnel costs, with the remainder funding facility upkeep and inmate services. Over the past ten years, as the inmate population declined by more than half, the number of guards remained relatively stable, declining by less than twenty percent. This report analyzed the impact on incarceration cost of four different policies against baseline, ultimately recommending a legislative cap on the number of guards relative to the inmate population.

This alternative provided the most significant cost savings, about $2 billion over ten years, while increasing the cost-effectiveness of DOCCS in terms of average cost of incarceration. Such substantive cost savings increase the feasibility of this policy considering the challenge that the COVID-19 crisis poses for New York's spending and revenue. Capping security staff at the inmate to guard ratio of 3.3 is a return to levels which DOCCS utilized when the inmate population peaked in 1999. Thus, while labor unions and bureaucratic rigidity will hamper implementation, the agency historically operated effectively with fewer guards during a time when monitoring technology in prisons was not as pervasive as today.

Problem Statement and Background

The cost of incarceration in New York State is too high. Since 2011 New York State has continued reducing its already falling prison population, closing twenty six detention facilities and thereby eliminating about 7,000 inmate beds. Despite these reforms, the New York State Department of Corrections and Community Supervision (DOCCS) spends about $3.3 billion each year in order to run the state's fifty two correctional institutions and fund other services provided by the department (New York, 2020). New York had the highest direct per capita cost of prison incarceration in the nation in 2015, costing the state taxpayers an average of $69,355 to incarcerate one individual for one year in the state's prisons (Vera, 2020). The bulk of the DOCCS spending goes to personnel costs which fund labor compensation and employee benefits.

New York is currently a national leader in criminal justice reform and is positioned as a policy experiment for other states considering reducing their prison populations. The fourth most populous state has the 10st lowest incarceration rate in the nation (Carson, 2020). The continued high cost of incarceration in the face of its falling inmate population is cause for concern to those who hope to highlight significant budgetary benefits as a motivation for similar reforms in other municipalities.

Comparative Analysis

In 2015 when New Yorkers paid the highest national average per inmate cost, DOCCS incarcerated 53,181 individuals. For comparison, neighboring Pennsylvania and New Jersey respectively incarcerated 50,366 and 21,992 individuals in 2015 at an average cost of $42,727 and $61,603 per inmate that year, while Florida incarcerated 100,567 individuals in 2015 at an average cost of $19,069 per inmate that year (Vera, 2020). That year Florida spent about 52% of New York's total cost to incarcerate an inmate population about 47% larger than New York's. While some differences in state level per inmate costs result from economies of scale and differences in services, New York State's correctional system is not cost effective when compared to its neighbors, and even less in comparison to Florida which has a comparable state population.

In 2019 the incarceration rate in New York was 224 per 100,000, an incarceration rate ranked 41st among other states in the United States(Carson, 2020). New York is the fourth most populous state, with over nineteen million residents. The third and fifth most populous states, Florida and Pennsylvania, have just over twenty-one million residents, and just under thirteen million residents respectively. While Florida provides the best comparison to New York in terms of population, Pennsylvania and New York share geographic and climate similarity. Florida has the 10th highest state incarceration rate, at 444 per 100,000 people. Pennsylvania ranks 25th in incarceration rate, at 355 per 100,000 people. The national incarceration rate is 419 inmates per 100,000 residents.

Internationally, the United States incarcerates more people than any other nation. It ranks third in population, but first in incarceration rate. New York's incarceration rate is comparable to Ecuador's, which has a population of about seventeen million residents. In terms of wealth, New York State generates a GDP closely comparable to that of Canada. Canada has about ten million more residents than New York, but imprisons people at a rate of about 139 per 100,000. Compared to other U.S. states, New York ranks quite low in terms of incarceration rate. However, the state incarcerates an outsize number of people relative to its economic equal, Canada, incarcerating people at the nearly the same rate of Ecuador.

The Social Cost of Incarceration in New York State

New York State Department of Corrections and Community Supervision (DOCCS) receives about $3.3 billion annually to run fifty two inmate facilities and provide monitoring services for the parolees under its jurisdiction (New York, 2020). As of December, 2020, DOCCS housed 35,353 inmates and monitored 35,554 parolees across New York (New York State Department of Corrections and Community Supervision, 2020). These facilities house inmates serving sentences longer than one year, meaning the population is relatively stable compared to the populations of county jails, and the facilities under the jurisdiction of the New York City Department of Corrections.

Of the $3.3 billion annual budget, DOCCS spends about $500 million annually on capital project expenditures and $30 million on aid to localities. The remaining $2.8 billion is spent on administration of DOCCS programs. Of the $2.8 billion spent on program administration, about $2 billion pays for labor and other personnel costs, about

$190 million of which covers overtime pay. New York's inmate to correctional guard ratio is far lower than the 9.3 inmate to guard ratio in federal prisons, and the state average of about 5 inmates to each guard. Personnel costs remain a key driver of the high cost of incarceration in New York. Likewise, as capital projects and building maintenance account for around $500 million in annual DOCCS spending, the number of facilities operated by DOCCS is another cost driver.

The cost drivers for incarceration are the inmate population and personnel spending. Conceptually, as this population decreases, the staffing and facility requirements should fall in kind; however the relationship is not yet realized in practice.

An analysis of national incarceration data suggests that for every dollar spent on incarceration, society incurs an additional ten dollars in externality and opportunity costs (McLaughlin et. al, 2016). While the cited national study contains a comprehensive analysis of twenty three different costs associated with incarceration, this present analysis highlights reductions in earning potential, and poor educational outcomes for the children of incarcerated adults, as samples of the externality costs associated with incarceration. This analysis only considers the 35,353 DOCCS housed inmates, the largest portion of the 50,000 inmates in correctional facilities in New York.

The Cost of Discrimination:

Due to employment discriminaltion and the attenuation of available opportunities stemming from an individual's involvement in the criminal justice system, incarcerated individuals' annual incomes suffer following their releases. Moreover, while actual incarceration has a larger impact on post release earning potential, mere conviction of a felony or misdemeanor negatively impacts earning potential regardless of whether the convict spends time in prison. Individuals convicted of a crime make between 16 and 52 percent less annually than they would otherwise earn. The individual's reduction in annual income is strongly correlated with societal racial discrimination, with Black and Latino offenders experiencing the most significant reduction in their post release and conviction earning potentials (Craigie Et al., 2020).

According to the 2020 Census, the median per capita individual income in New York is $39,326 in 2019 dollars. Utilizing this as a benchmark, the reduced income stemming from an individual's involvement in the criminal justice system therefore represents an income between $18,876 and $29,101 annually. Thus, the annual cost in earning potential due to discrimination or limitations in available employment for the current prison population upon their release is between $361,484,425 and $722,968,848 annually. Considering New York reduced its prison population over the past twenty years, this annual cost understates this externality cost and the impact of employment discrimination on this population within the state.

The Cost Borne by Children and Families:

Incarceration of a parent has a negative impact on their children. Facing the loss of family income resulting from the incarceration of an adult family member, teenage children of inmates often enter the workforce in order to support their families. This causes about 10% of children of incarcerated parents to drop out of high school or college as a result of their parent's imprisonment (DeVuono-Powell Et al., 2015).

Reduced educational attainment within this population similarly reduces their lifetime earning potential and represents a social externality of incarceration.

According to the Bureau of Labor Statistics, in the third quarter of 2019 high school dropouts earned 62% of the median income, compared to the 77% of median income earned by high school graduates with no college experience. Likewise, individuals who started college but did not complete a four year degree earn 90% of the median income, compared to the 131% of median income earned by those with a bachelor's degree. Using the state median income cited above, and assuming that children who drop out of high school or do not finish college would only achieve at the next highest level of educational attainment, these individuals stand to earn between $5,899 and $16,124 less annually as a result of their parents' incarceration.

The New York State Office of Children and Family Services estimates that around 105,000 children in New York have at least one parent currently incarcerated within the state. If 10% of these children do not complete their educational aspirations, then 10,500 children in the state will experience annual income losses resulting from their unreached educational goals. Aggregated, this represents a social cost between $61,939,500 and $169,302,000 annually borne by the children of inmates. These figures only consider children with parents currently incarcerated in New York. Therefore, the given range is an underestimate as many more children and adults in the state have a formerly incarcerated parent. Likewise, the assumption that individuals would only achieve the next highest level of educational attainment is unrealistic but an alternative comparison is too complex for the present discussion. Thus, the true cost to society of losses in children's educational attainment stemming from parental incarceration is likely much higher than the given range.

Prison Detention in New York State

New York State's prison population reached its peak in 1999, with 72,649 people incarcerated within the state's facilities (New York State Department of Corrections and Community Supervision, 2020). Since then, the state's inmate population has continuously declined, falling to 35,353 in December, 2020. This reduction in the incarcerated population is the result of changes to law enforcement, prison diversion programs, sentencing reform, and an increase in the use of drug treatment facilities.

At peak population, the state employed 22,112 uniformed staff, maintaining an inmate to uniformed staff ratio of about 3.3. In December 2020, DOCCS employed 18,601 uniformed staff, putting the inmate to uniformed staff ratio at 1.9. DOCCS notes that its security staff reductions are consistent with inmate population declines; however, since 1999 the inmate population decreased by 51.3 percent, while the number of uniformed staff decreased by 15.9% (New York State Department of Corrections and Community Supervision, 2020).

Notably, the proportion of inmates serving sentences in DOCCS maximum and medium security facilities for violent felony convictions is increasing. This increasing concentration of violent felons within prisons is the natural result of policies aimed at reducing the number of incarcerated individuals. Moreover, the absolute number of violent felony inmates is decreasing, thus the increasing concentration of violent felons in conjunction with their falling numbers implies that the state is successfully diverting non-violent offenders away from their medium and maximum security facilities.

At the beginning of his first term as Governor of New York, Governor Cuomo's administration initiated a merger of the Department of Correctional Services and the New York State Division of Parole in April of 2011. The reformed executive department now called the Department of Corrections and Community Supervision, intended to reduce spending by streamlining the administration of both former departments, and to support the Governors long term correctional reform plan (DOCCS, 2021). The public push to reduce spending on incarceration without sacrificing service quality has largely driven the Governors push to reduce the state inmate population and number of correctional facilities. The dismantlement of Broken Windows policing as a crime stopping tactic, and the legal downfall of Stop-and-Frisk have also reduced enforcement driven pressures on the justice system to incarcerate more people.

Governmental Jurisdiction:

The Department of Corrections and Community Supervision is responsible for administering the state's prisons, and the bulk of the population under court ordered detention or supervision. Normally individuals who are convicted of a felony under the New York State Penal Code and receive a sentence greater than one year will spend time within a prison correctional facility administered by DOCCS. Inmates in these facilities who qualify for conditional release will remain under the supervision of the state through DOCCS parole officers.

As an independent entity within DOCCS, the New York State Board of Parole retains sole authority to grant release to qualifying individuals incarcerated with DOCCS. Additionally, the Board of Parole determines the conditions of release, and has the ability to revoke parole decisions if these conditions are violated. Title 7 of the New York Codes, Rules, and Regulations (NYCRR) sets regulations for correctional and minimum conditions for parole release.

In New York, jails tend to house a wider range of people and usually fall under the jurisdiction of the elected county sheriff or local municipal department of corrections. These facilities may confine people who are accused of a crime and do not receive bail or cannot afford bail while they wait for their trials, people convicted of a felony and awaiting sentencing, felons awaiting transfer to a state or federal prison, and those convicted of misdemeanors and sentenced to confinement of less than a year. As a result, jail populations tend to fluctuate on a day to day basis and population data in New York is conventionally reported as a daily average. Jails serve a well defined region within the state and receive part or all of their funding from local taxpayers.

While some incarceration policies are set by the state and federal government, administration of jails by local government and law enforcement allows localized needs and politics to affect incarceration practices in the facilities under their jurisdiction. Moreover, municipal ability to fund local jails differs between counties, forcing some local taxpayers to bear higher direct costs associated with housing inmates from overcrowded facilities outside their jurisdiction. DOCCS provides aid to local jails to mitigate this burden and facilitate cooperation between entities in separate jurisdictions.

Of important note, incarceration and criminal justice spans all three branches of government. Executive branch agencies administer facilities and law enforcement to the standards set by their respective agency chiefs. These standards are set pursuant to the interpretation of laws set by legislators. Finally, the courts ensure fair and equal

treatment through arbitration of legislative mandates and the application of trial procedures to determine guilt or innocence before sentencing.

State Policies:

New York State correctional facilities under DOCCS jurisdiction are regulated by Title 7 of NYCRR. This title also sets basic parameters for release by the Board of Parole. The Governor of New York has broad authority to open and close state detention facilities pursuant to Article 4 of New York State Correction Law. Section 79-A mandates the governor provide state legislators and local stakeholders notice of intended facility closures twelve months in advance of such actions. The legislature may waive this provision at the request of the executive. In the event that staffed positions are abolished as a facility closure might prompt, all permanent full time civil servants facing position abolition must be afforded the opportunity to transfer to another state department if openings exist pursuant to Section 80 of New York State Civil Service Law.

New York State employs sentencing guidelines for criminal convictions codified under Article 70 of New York State Penal Law. An updated version of these sentencing guidelines, which set parameters for indeterminate sentences and allowed for more judicial discretion for charges with mandatory minimum sentences took effect on September 1, 2019.

Changes to the existing bail regulations represent an important component of New York's efforts regarding criminal justice reform. Enacted in January of 2020, the recent bail reform law sought to eliminate cash bail for most offences. Proponents of bail reform argued that eliminating cash bail would greatly reduce the number of people in jails awaiting trial by mitigating the economic hardship that cash bail posed on many accused individuals (Merkl, 2020). Opponents to this reform effort argued that eliminating cash bail in the state would fuel statewide crime rates.

As a result of pressure from communities and advocacy organizations, the law was amended in April 2020. The amended version which took effect on July 1, 2020 still eliminated the imposition of cash bail for many minor crimes, but it expanded the discretion of judges to impose cash bail for a greater number of criminal complaints than the initial reform. The new version also allowed judges to consider the individual's criminal history in conjunction with pending allegations when ruling on bail (Merkl, 2020).

In 2019, Governor Cuomo signed A8420 which decriminalized possession and use of cannabis. This new law reduced possession of less than one ounce of cannabis, or the use of cannabis in public to a civil offense, down from a class B misdemeanor. Additionally, A8420 mandates the automatic expungement of applicable cannabis use and possession charges and related criminal records where applicable. The law also set the mandatory punishment as a fine of no more than $50, rescinding the discretion of courts to impose jail time for mere use and possession of cannabis.

Some states reduce their incarceration costs through the use of private prisons; however, in 2007 New York became the first state to ban private ownership of correctional facilities, contingently banning the funding of private prisons with public funds with S4118-B. Subsequently, New York has divested from major private prison

companies, and in 2019 the State Senate passed a bill which would have prohibited banks chartered in the state from investing in these companies.

New York exercises its discretion to opt-out of the federal ban on the receipt of SNAP and TANF benefits for former felons and their families given they would otherwise qualify for aid under these programs. This is a meaningful step in reducing the cost of incarceration on the families and children of incarcerated adults. Moreover, released felons can lean on welfare programs following their releases, reducing poverty as a driving factor for recidivism within the state.

Federal Policies:

The major Federal policies dictating the treatment and confinement of prisoners are the Eighth and Fourteenth Amendments. The Eighth Amendment prohibits cruel and unusual punishment and acts as a minimum requirement for conditions of confinement in prisons. The Fourteenth Amendment protects inmates from discrimination and mandates equal treatment under law. The application of these amendments to prisons and prisoners is the subject of lengthy legal discourse, and court rulings often set precedents for acceptable confinement. Additionally, Title 28, Chapter V of the United States Code of Federal Regulations provides additional guidelines for the administration of prisons and the treatment of inmates.

The New York State Correctional Officers and Police Benevolent Association is the predominant labor organization representing the interests of New York State DOCCS security staff. As such, the National Labor Relations Act dictates how New York State, as employer, interacts with the union and its members. Moreover, the Act prohibits New York State from discriminating against unionized workers in terms of opportunity, while protecting employees' rights to associate with collective bargaining organizations. The contract negotiations between New York State and NYSCOPBA are under the jurisdiction of this law, and may only be renegotiated after the current version expires.

Unionized Labor:

Nationally, New York State has the second highest union membership rate, with 22% of workers declaring a union affiliation. Additionally, in 2020 protective services had the highest rate of unionization of any occupational field with 36.6% of workers union members. Unionized protective service workers earned on average $1,263 each week, compared to the average $806 weekly income of non-unionized workers in the same field. The New York State Correctional Officers and Police Benevolent Association (NYSCOPBA) represents over 30,000 members who currently or formerly serve in DOCCS facilities (NYSCOPBA, 2021). New York State's current contact with NYSCOPBA began in 2016 and expires in 2023. NYSCOPBA lobbies in the interest of its members, particularly regarding issues which pertain to employment security and officer safety. NYSCOPBA and other police and correctional unions donated heavily to state lawmakers while lobbying successfully for the aforementioned bail reform walkbacks which took effect April of 2020 (Schaffer et al. 2020).

Considering New York State has a legal duty to staff prison facilities at all times, the state cannot initiate a lockout during the negotiation period unless it can temporarily

staff its facilities with non-union workers. Likewise, the union may not perform a walkout if doing so will endanger the public. As finding and employing qualified correctional staff who are not unionized is too difficult, employer lockout is an empty threat. Although the union cannot perform a walkout either, slowdowns and widespread employee dissatisfaction provide NYSCOPBA the upper hand in employment negotiations.

Local and City Jails at a Glance

A portion of the Department of Corrections and Community Supervision budget is annually allocated for aid to counties. In December of 2020 local county jails across the state excluding New York City reported a combined daily average inmate population of about 8,800 (New York State Division of Criminal Justice Services, 2021). Aside from state aid, these facilities are funded by local taxpayers. It is difficult to pinpoint the direct cost of county jails, particularly without double counting disbursements from the state agency.

The New York City Department of Corrections (DOC) receives about $1.3 billion to fund its services and operate jail facilities within its five boroughs. This funding is almost entirely sourced from city taxes, with a small portion coming from revenue generated from services within the DOC's facilities (Council of the City of New York, 2020). The DOC housed on average about 5,800 on any given day across all nine New York City DOC facilities in Fiscal Year 2020 (NYC Department of Corrections, 2021). As New York State authorizes about $3.3 billion for use by DOCCS, and New York City authorizes about $1.3 billion for its DOC, taxpayers in New York pay at least $4.6 billion annually to cover the direct costs of incarceration. This funds the incarceration of just under 50,000 inmates when calculated using year end prison inmate population data and daily average housing data from NYC and county jails. The true cost exceeds $4.6 billion considering the cost of county jails outside of NYC; however, as aforementioned this analysis excludes those costs to avoid double counting state expenditures.

Emerging Technologies

Emerging technologies have the potential to drive changes to incarceration. The correctional system already utilizes electronic monitoring to help control populations under community supervision, the rise tracking technology, especially in policing, has implications for prisons and enforcement practices. Electronic monitoring is often used to monitor people on probation, a form of prison diversion sentence. While the use of these devices increased significantly since 2005, the technology which would seemingly help reduce incarceration has many unintended consequences. Police officers tend to ignore alerts generated by these devices, failing to respond. Additionally, the devices are prone to malfunction, either sending a false alert, or failing to transmit an alert when applicable. Finally, in certain cases the subject of monitoring is charged for the device per day of its use. Some jurisdictions imprison individuals who are unable to pay the charges, defeating the purpose of home monitoring or community supervision release and diversion programs (Karsten & West, 2017).

While some technologies, like the rise of electronic libraries might seem beneficial, the propensity of the incarceration system in the U.S. is such that even

access to digital books is used as leverage over the inmate population. Prisons seemingly employ technologies in order to further their control of inmate populations. Of particular note, Radio Frequency Identification (RFID) technology's application in tracking inmates and officers in correctional settings is beginning to take hold. The National Institute of Justice funded a study which explored RFID use in corrections. Noting sample limitations due to the relatively high cost of purchasing and implementing new technology in prisons, the study found that individualized wearable RFID tagged items which transmit identifying data continuously to stationary or hand held receivers. Facilities that implement RFID tracking theoretically will be able to track inmate and guard positions in near real-time (Hickman, et al., 2010).

Presently, RFID tracking is used in large warehouses to locate and document items in storage. It's application to corrections is largely driven by RFID service providers. Facilities which implemented RFID technology into their personnel or inmate monitoring faced substantial time costs stemming from installation and training challenges (Hickman, et al., 2010). Moreover, the study found that current RFID tracking technology failed in environments with outside interference and where layouts produced radio blind-spots for receivers. Although RFID tracking technology is certainly promising regarding decreasing labor needs without decreasing prison safety, future improvements regarding cost and training will increase its practicality for use in correctional settings.

Cost Reduction Strategies

Population and Staff Reductions

Considering New York ranks low among other U.S. states in terms of incarceration rate and its inmate population is continuing to decrease, the state seems situated to experience cost reductions related to decreasing mass incarceration. The state's uniformed staff rate has not decreased as significantly, relative to its inmate population. As personnel costs account for the lion's share of direct incarceration costs for New York State, reassessing the labor needs of a reforming correctional system is a necessary next step for this analysis.

Recent data suggests that even as prison populations and new admits decrease, spending has roughly flatlined. Local governments have increased their spending jails even as crime decreases alongside jail admissions (Valder, 2021). As such, a comprehensive plan to reduce the cost of incarceration might also address local spending on jails. The localized service creates diseconomies of scale for small towns. Small towns spent the most on jails, but had the least crime (Valder, 2021). This is likely due to the relatively high fixed cost of operating an independent correctional facility, especially if it is not serving many people. DOCCS has already experienced successful cost savings through facility closures, and the consolidation of inmate populations (New York State Department of Corrections and Community Supervision. 2020). By closing facilities, DOCCS reported saving about

Some states have successfully reduced spending through reductions in their prison populations. Michigan closed or consolidated twenty- facilities by leveraging

sentencing and parole reforms in order to reduce its prison population by about 20% from 2006 to 2016. Michigan reduced reincarceration by about 41% due to changes in practices regarding punishments for parole violations. Concurrently, the parole board was expanded and the rate of parole acceptance increased. Ultimately Michigan saved $392 million over the ten year period by instituting these reforms (Schrantz et. al, 2018). Other states have also used similar approaches to reducing their prison populations. Reducing recidivism is a major component of preventing reincarceration and helped Mississippi and South Carolina reduce their prison populations too. Mississippi reduced its inmate population by about 18% from 2008 to 2016 by instituting sentencing and parole reforms, ultimately resulting in anticipated savings of $266 million from 2014 to 2024 (Schrantz et. al, 2018). Through increasing parole opportunities and sentencing reforms South Carolina reduced its prison population by about 14% from 2008 to 2016, incurring real savings of about $33 million by closing facilities.

New York has enjoyed similar cost savings due to its declining inmate population and few recent facility closures; however, proportionate rises in personnel costs prevent substantive reductions in DOCCS spending. New York has one of the lowest inmate to guard ratios in the nation, currently employing one security staff member for every 1.9 inmates under supervision. Such a high number of security staff relative to the inmate population is demonstrably unnecessary. The DOJ employs about one security staff member for ten inmates, while the average ratio among other state prison systems in the US is around one guard for every five inmates.

Reducing Recidivism by Increasing Employment

Recidivism is a significant concern for reducing the prison population. Recidivism is highest in the transitional period during an individual's first few months following their release. The risk coincides with an inmate's transition back into the community and is impacted by the context of their reception in their communities. Inmates often face overwhelmingly negative prospects upon reentry. Many struggle to find employment, and about 32% remain unemployed during the first two years following release predisposing them for recidivism (Couloute & Kopf, 2018). Moreover, Federal tax data suggests that the majority of recently released inmates who find employment report earnings well below the poverty line.

Research suggests that retaining stable and stimulating employment in the post release period reduces recidivism. While a number of studies found no effect regarding reduction in recidivism risk for those holding transitional jobs, former inmates that attain stable employment in higher occupational levels do experience a reduction in recidivism (Ramakers et. al, 2016). Another study focused on the impact of post incarceration job quality and employment sector found that a shift from the food industry to skilled manual labor, a higher quality sector, resulted in an 11% decrease in the crime rate among released offenders (Uggen, 1999). Researchers in Norway concluded that former inmates that gain and maintain employment in the post-release period significantly reduced recidivism hazard. Moreover, while individual differences may account for the positive impact of employment, the researchers found that former inmates who could not find stable employment in the post release period or were receiving welfare assistance due to inadequate earnings experienced almost double the rate of recidivism as those who were employed and received adequate earnings when individual

differences are controlled (Skardhamar & Telle, 2012). These findings support the conclusion that regardless of individual differences, either better employment or higher earning level in the post-release period are closely associated with a reduced risk of reincarceration.

As earnings or employment opportunity reduces recidivism risk for recently released inmates, increasing access to higher paying positions for inmates upon their release will reduce recidivism by addressing employment and earnings. Although employers purport a willingness to hire former inmates, ex-convicts receive callbacks 50% as often as comparable applicants without criminal records (Couloute & Kopf, 2018). Moreover, a Johns Hopkins longitudinal study indicated that following a change in policy barring employers from inquiring about convictions on initial applications, former inmate applicants who qualified on merit were less likely than their non-convict peers to burn out or leave unexpectedly (Couloute & Kopf, 2018). Interventions which reduce employment discrimination in practice thus present potential cost saving solutions through reducing recidivism among employed earners.

Reducing Overtime Pay

The Department of Corrections and Community Supervision consistently accounts for the largest proportion of overtime pay compensation for labor among all other New York State agencies. While it makes sense that an agency which must maintain round the clock staffing might require overtime outlays to offset staffing gaps caused by injury or absence, as the DOCCS inmate population declines faster than its staffing levels, the labor burden, and necessarily the overtime burden should decrease in kind. The current union contract contains an agreement between NYSCOPBA and New York which prohibits supervisors from altering labor schedules to avoid overtime generating scenarios. DOCCS overtime pay accounts for about 10% of its annual labor compensation, generally between $200 million and $300 million annually. In 2018, DOCCS overtime pay accounted for nearly one third of statewide overtime outlays (NYS Office of Budget and Policy Analysis, 2020).

The Metropolitan Transportation Authority (MTA) recently received a lot of scrutiny for its excessive use of overtime. A watchdog report cited many instances of overtime fraud and other abuses by MTA employees. New York State mandated the MTA to employ various overtime reduction strategies to combat abuse and overuse. The union representing most of the MTA employees quickly supported the intervention as their employees were facing accusations of fraud and theft leveled by the public. After implementing a new electronic overtime approval form, including compliance with overtime policies in performance reviews, collecting weekly activity reports, and improving project prioritization to minimize unnecessary overtime, the MTA successfully reduced its overtime reliance, saving about $122 million each year for the past two years (MTA, 2021).

Mitigating Social Costs

Even if direct costs are not decreasing appreciably, reducing the prison population is likely to produce generational cost savings stemming from the increased criminality of children of incarcerated parents. While it is difficult to control for other

social determinants which predict criminality, the incarceral system at large directly increases criminality in children of incarcerated parents. On average, a given individual is about 5% likely to commit a crime in their lifetime (McLaughlin Et al., 2016). The removal of a child from their parents' care, or the incarceration of a parent who lived in their household increases the likelihood that a child will commit a crime by a factor of six (Cox, 2009). As such, the likelihood that children of incarcerated parents commit a crime within their lifetime is roughly 30%, perpetuating criminality particularly within families already impacted by incarceration. This cost is generational and relies on a negative feedback loop of criminality. Thus, as the overall prison population decreases the incarceration of a parent will impact fewer children, thereby breaking this costly feedback loop.

Although barring employers from inquiring about past criminal history does provide benefits to former convicts by protecting them from a degree of employment discrimination, data suggests these protections have unintended negative consequences for the hiring of young men of color. As employers are unable to ask about criminal history, they rely on their existing biases and preconceptions of criminality based on race and sex (Stacy, 2017). This is an employment information problem which is exacerbating biases, both implicit and explicit.

Evaluative Criteria

Political Feasibility:

This is a measure of the likelihood that a given policy is enacted by the legislature and signed by the governor, or that a regulation is promulgated by an executive agency. This considers the present political landscape and policy agenda. Policies that face heavy opposition from advocacy groups, the public, or lawmakers will score lower, while policies with significant support will score higher. I'll source feasibility information from executive and legislative priorities, relevant news sources, and political analysis.

Total Cost and Relative Savings:

This is a measure of the total direct cost projection of the state correctional system over the ten year period. I'll project the cost in dollars of incarceration under each policy up to ten years out using DOCCS budget data. Calculating this metric requires discounting the total cost over the ten year period to net present value. The difference, if any, between the baseline total cost projection and the option specific cost projection denotes relative savings due to the given option.

Cost-Effectiveness:

This is a measure of how effective the policy is at reducing the cost of prisons in New York relative to the number of incarcerated individuals. An important component of

ending mass incarceration is divesting from the incarceral system itself. To measure cost-effectiveness, I'll divide the total cost under a given policy by the total number of years of incarceration under the policy. The net present value of the cost is the numerator in the cost-effectiveness function. The outcome, or total number of years of incarceration presided over, is the denominator of the function. This indicates the average cost to incarcerate one individual for one year under the given alternative. Following, policies which produce larger savings relative to the number of inmates incarcerated will receive higher scores.

Community Equity:

This is a measure of the policy's impact on communities. Considering the high social cost of incarceration, it is important for policies to offer comparatively more equitable situations for inmates upon their releases, and within the New York State communities. This criteria will analyze the effect of each policy regarding employment opportunities for inmates, and for communities that house prisons. Expanded employment opportunity will result in higher ratings, while reduced employment opportunity results in lower ratings.

Implementation:

This is a measure of the ease with which the relevant stakeholders can implement the policy assuming it is enacted. I'll consider the ability of stakeholders to implement each policy based on their current skill sets; their level of buy-in within the unions, relevant agencies, and their staff; and whether or not technology may provide solutions to potential implementation challenges. Given the analysis each policy will receive a qualitative rating.

Policy Alternatives

Option 1: Status Quo

This alternative requires no intervention, and merely represents the baseline if all current policies are held constant. The status quo is a decreasing prison population which remains costly to incarcerate. Cost savings will likely occur, but until that time the State will continue allocating about $3.3 billion annually to fund DOCCS.

Option 2: Decriminalize Possession of Controlled Substances

Even though cannabis is decriminalized in New York, the law does not allow for public possession or use, nor is smoking technically legal within any building in New York. This creates a loophole in which police may still use cannabis as a basis for searches, seizures, and probatory stops. Unsurprisingly, black and latino men are most likely to have interactions with police regarding cannabis. If the legislature and governor

pass legalization legislation, using cannabis outside will no longer enable police to begin probatory interactions in which they look for reason to arrest or ticket citizens on their own volition. Furthermore, legalizing cannabis would likely expand the scope of cannabis related offences eligible for expungement, as well as the number of inmates eligible for early release or vacated convictions.

Option 3: Statewide Modified Ban-the-Box

Ban-the-Box is an antidiscrimination policy which prevents employers from asking if potential employees have ever been arrested or convicted of a crime. This question is often a simple check box on the initial job application, hence the name Ban-the-Box. Depending on the job they are seeking, employers might have good reason to inquire about a person's criminal history; however, the question posed in an initial application is unspecific regarding crimes which might be relevant to a particular job. Ban-the-Box aims to decrease the difficulty with which ex-convicts find employment. This targets a significant cost to society by increasing the relative lifetime earning potential of released prisoners. Additionally stable employment and higher occupation level substantively reduces recidivism. Employers tend to respond negatively to Ban-the-Box movements by increasing their hiring discrimination against young black and latino men, two groups most statistically likely to have a criminal record.

To address this, the Modified Ban-the-Box allows employers to inquire about specific convictions, or arrest allegations. For example, an employer may ask about violent crimes, sex crimes, or crimes against children, but may not inquire about criminal history that is irrelivant to the workplace. This will require the addition of criminal history to the list of protected categories within the state's existing (robust) antidiscrimination legislation, likely through a legislative amendment (to [find relevant law]). Additionally, the state office of equal opportunity and employment would need to develop targeted background questions relevant to different employment sectors. Helping released convicts find gainful employment decreases their likelihood of re-offending, thereby reducing the prison population in the long run while targeting a cost to society relevant to incarceration.

Option 4: Legislative Cap on Inmate-Guard Ratio

As the jail population decreased over the past 20 years, so has the number of jailers, albeit to a lesser extent. This policy forces a workforce optimization through legislative mandate aimed at returning staffing levels to the 3.3 inmate to staff ratio employed at peak inmate population. This option requires DOCCS to reevaluate its need for jailers relative to the inmate population. Excess guards should be reassigned within the civil service if possible. This will maintain a minimum number of jailers relative to the inmate population.

Option 5: Legislative Cap on Overtime in Prisons

The New York State Correctional Officer and Police Benevolent Association (NYSCOPBA) is a powerful political entity within New York, representing over 30,000 state employees. The current contract between the union and New York for NYSCOPBA affiliated correctional security staff expires in 2023. Before the contract expires, state legislators should enact legislation which bars workers from accumulating more than 10 hours of overtime per pay period. Following the expiration of the union contract, the new legislative cap on overtime in prisons will ensure that the union cannot bar labor supervisors from altering labor schedules to minimize overtime reliance, reducing overtime usage and ensuring the welfare of prison workers.

Alternative Analysis and Findings

Estimating Cost Effectiveness:

In order to estimate the outcome in terms of number of years of incarceration presided over by DOCCS, this analysis based baseline prison population data on a Vera Institute model within their "Empire State of Incarceration" report which weighted recent trends in New York's prison population to linearly project the prison population over the future ten years. The Vera model assumes linear change in prison population and is based on pre-COVID-19 data. The projection of all other outcomes was based on evidence from the cited sources and other state experiences. For the cost estimates, this analysis leveraged access to historic DOCCS budget actuals and the 2021 projection provided by New York. After standardizing annual spending data to 2020 dollars, future spending was projected by assuming the continuation of the linear trend observed over the past ten years. This cost projection omits 2020 spending data to mirror the pre-COVID-19 Vera outcome projection. Cost-effectiveness estimates reflect the net present value of the ten year projected cost of DOCCS under each policy over the sum total of the prison population outcome over the ten year projection. See Appendix for additional details.

Option 1: Status Quo

The status quo option is the baseline model in which all present non-COVID-19 policies are carried forward over the next ten years. Under the status quo, DOCCS spending on incarceration remains consistent with the trend over the last ten years. Likewise, inmate population change under the status quo is a result of release and enforcement rates relative to the expected population groups over the period rather than changes to criminal justice policy.

Political Feasibility:

As the status quo option requires no changes to existing policies or practices and follows the trends observed over the last five to ten years, the state's political institutions

have demonstrated the political feasibility of this option. Further, addressing the main cost driver of incarceration, personnel costs, is not a particularly popular prospect for lawmakers as it risks the ire of the police union. Annual DOCCS spending has remained stable between $3 billion and $3.4 billion in 2020 dollars annually for over ten years even as the inmate population consistently fell. The status quo therefore enjoys high political feasibility.

Cost and Relative Savings:

Under the status quo, the net present value of the ten year DOCCS cost projection is $22,689,361,904. This cost figure is the comparison point for any relative cost savings.

Cost-Effectiveness:

Under the status quo option, New York's prison population declines linearly by about thirteen percent by 2030. Simultaneously, DOCCS spending declines linearly at a slower rate. A linear model predicts annual spending decreases of about $12.4 million, achieving a three percent decrease in annual spending in 2030 compared to the prediction for 2022. This prediction is almost identical to the expected savings stemming from the annual inmate population reduction at a rate of about 555 inmates a year. A 2013 report by New York State Division of Criminal Justice Services held that the marginal cost of incarcerating one person in a DOCCS facility is $21,912.36 adjusted to 2020 dollars (Schabses, 2013).

Using the state's marginal cost of imprisoning one person for a year, the expected annual savings relative to the baseline population projection is about $12.1 million. Thus, while the inmate population decreases continuously over the ten year projection, DOCCS does not incur substantive savings from staffing level or facility usage alterations even though the inmate related personnel requirements should decrease in conjunction with population. As the outputs of the state prisons decrease substantially over the ten year period, DOCCS expenditure stagnation implies higher spending relative to output. The net present value of the expected ten year spending under status quo is $22,689,361,904 which amounts to $58,069.2 per inmate a year. As such, the cost remains quite high, even as the amount of labor required to house the inmates decreases.

Equity:

Under the status quo inmates continue to struggle finding jobs after their release; however, employment related to incarceration remains unchanged. There is low equity under this option due to the outsized inequities faced by incarcerated individuals and their families under current conditions.

Implementation:

The status quo is already in effect and does not require any additional work to implement. It is therefore the easiest policy to implement as all stakeholders possess the skill, willpower, and technological ability to continue the current policies.

Option 2: Decriminalize Drug Possession

This option requires the legislature to pass a law which decriminalizes possession of controlled substances. Drug convictions account for about thirteen percent of prison admissions for a new charge in New York, or about 3,300 inmates. About 2,000 of these admissions are for mere possession of a controlled substance (Vera(2), 2021). An additional portion of the inmates in DOCCS custody are serving prison sentences for technical parole violations, many of which are related to the possession or use of a controlled substance. In general, technical parole violations are by definition nonviolent and account for around forty percent of annual prison admissions in New York (Vera(2), 2021). For the purposes of this analysis, I'll assume that legalizing cannabis and decriminalizing possession of other controlled substances will reduce new admissions and allow existing inmates treatment alternatives to prison, or early releases.

Political Feasibility:

This option requires the legislature to construct legislation which decriminalizes mere possession of controlled substances. State lawmakers passed an adult use legalization bill for cannabis, which Governor Cuomo signed. Decriminalization of other drugs however, is not on the current governmental agenda and thus is less likely to receive legislative support at present. Considering that New York just legalized cannabis for adult use, this option scores high on political feasibility.

Cost and Relative Savings:

Under this option, decriminalizing possession of controlled substances, the net present value of the ten year DOCCS cost projection is $22,624,142,460. To estimate this policy's impact on prison spending I subtracted the expected savings due to the reduced prison population in terms of per inmate marginal cost from the corresponding baseline cost projection. In terms of total cost, the net present value of the ten year projected DOCCS spending if drug possession is decriminalized is about $65 million dollars less than under the baseline.

Cost-Effectiveness:

The reduction in inmate population over the ten year period accounts for the entirety of this saving projection, which also highlights the disproportionate spending for non-inmate related costs associated with incarceration. As these costs account for a larger portion of total prison spending, the cost effectiveness of DOCCS under this policy option decreases, as it spends $58,503.90 per inmate a year.

Equity:

Considering that drug convictions for possession charges will no longer carry criminal penalties or prison sentences, these nonviolent offences will no longer present an employment challenge to those caught possessing controlled substances. Moreover, eliminating possession of controlled substances for probable cause in for criminal investigation, fewer individuals will face exposure to the criminal justice system,

thereby shielding them from employment discrimination in the future. As such, this option will produce high equity compared to the status quo as it increases the employability of community members and former inmates.

Implementation:

This policy will require implementing changes at the law enforcement and prosecutorial levels of criminal justice. Additionally, New York will likely need increased capacity at treatment sites in order to provide viable alternatives to incarceration at sentencing. The Willard Drug Treatment Center and its programming are useful steps towards full judicial diversion of drug users to medical treatment. Familiarity with the program will help ease implementation resistance among prosecutors and judges. Thus this option scores high regarding its implementation success.

Option 3: Statewide Modified Ban-The-Box

Employment discrimination based on criminal record hinders released convicts employment prospects regardless of the nature of their crime. New York experiences a recidivism rate of about 43% return over three years (DOCCS, 2020). Each year DOCCS releases over 20,000 people from its facilities. Preventing employment discrimination through a modified Ban-the-Box policy will provide former inmates with better employment opportunities post release.

Political Feasibility:

This option requires an amendment to the state's Human Rights Law to remove the ambiguity regarding which past convictions constitute unreasonable risk for which employment sectors. The current law does offer protections for released inmate regarding employment discrimination to the extent that empoyment decisions cannot be solely based on past criminal convictions, however the statute allows employers too much interpretation regarding which crimes are directly related to their open positions, and what constitutes unreasonable risk. This ambiguity allows for the continuation of criminal justice involvment based discrimination. While employers may oppose this change, if it is posed to lawmakers as a necessary alteration to preserve the spirit of the Human Rights Law, then it should enjoy moderate political feasibility.

Cost and Relative Savings:

Under this option which reduces recidivism, the net present value of the ten year DOCCS cost projection is $22,557,292,559. To estimate this policy's impact on prison spending I subtracted the expected savings due to the reduced prison population in terms of per inmate marginal cost from the corresponding baseline cost projection. In terms of total cost, the net present value of the ten year projected DOCCS spending under this option is about $132 million dollars less than under the baseline.

Cost-Effectiveness:

While the total cost of incarceration is reduced by enacting this policy, the cost effectiveness of DOCCS is further reduced as the average cost of incarcerating an

individual increases in the absence of staffing and facilities alterations amidst the population decline. Ultimately, DOCCS will spend $65,332.70 per inmate a year under these conditions even as it incurs substantive cost savings.

Equity:

This policy will provide greater protection against employment discrimnation based on criminal history. As such, inmates will have more employment opportunities available following their release than under the status quo due to reductions in discriminatory hiring practices. Therefore, this policy produces high equity relative to the status quo.

Implementation:

Implementing this policy may pose a challenge considering likely resistance from employers for this measure. Past Ban-the-Box policies have failed when employers resorted to statistical discrimination in an attempt to weed out aplicants with criminal records when unable to ask. The modification to allow inquiry regarding specifically defined relevant convictions for employers' work sectors should help ease the impact on other job applicants, and help with implementation; however, this policy still ranks low in terms of ease of implementation considering low stakeholder buy-in stemming from employer resistance.

Option 4: Legislative Cap on Inmate-Guard Ratio

Since 1999 the inmate population decreased by 51.3 percent, while the number of uniformed staff decreased by 15.9%. DOCCS claims that the disproportionate reduction between population and uniformed staff is a result of security needs which are fixed and largely determined by facility layout (DOCCS(2), 2021). This option forces a workforce and facility utilization optimization through legislative mandate aimed at returning staffing levels to the 3.3 inmate to staff ratio employed at peak inmate population. Reaching this staffing level will require reducing the uniformed staff by 7,518 security personnel by 2030.

Additionally, this law would promote facility consolidation to further promote efficient fund utilization. In December of 2020 DOCCS facilities staffed 5,550 empty beds in its maximum security facilities, 9,034 empty beds in its medium security facilities, and 1321 empty beds in its minimum security and drug treatment facilities. In total, DOCCS staffed 15,905 empty beds across its active facilities (DOCCS(2), 2021). This policy thus entails reducing the unused staffed facility capacity to reflect the continuously declining need for excess prison beds.

Political Feasibility:

Optimizing facility utilization is on the governmental agenda at present. Governor Cuomo already initiated a number of DOCCS facility closures and consolidations throughout his tenure. Additionally, the legislature granted a waiver last year allowing his office to close facilities given three months notice, rather than the normal twelve month heads-up required by Section 79-A of New York Correctional Law. The economic

pressure due to the state's COVID-19 response provides further avenues for legislative support of cost saving policies. Thus, this option enjoys high levels of political feasibility.

Cost and Relative Savings:

If lawmakers issue a cap of 3.3 : 1 inmates to guards and implement the necessary staff reductions, the net present value of the ten year DOCCS cost projection is $20,658,164,069. In order to achieve a return to peak inmate to guard staffing ratios, DOCCS must eliminate 7,518, or about 40% of its uniformed positions by 2030. Assuming staff reductions happen linearly, each successive year DOCCS will eliminate about 752 of these positions. According to BLS statistics the average annual salary for correctional officers in New York is about $66,000. The annual cost estimates therefore reflect the cost savings associated with the reduction in staffing in that year and all preceding years. Importantly, this estimate does not account for cost savings based on facility closures as the analysis does not consider which facilities should close. In terms of total cost, the net present value of the ten year projected DOCCS spending under this option is over $2 billion less than under the baseline projection.

Cost-Effectiveness:

Although the inmate population does not change under this option relative to baseline, the cost effectiveness of this option is higher compared to each other option. Reducing DOCCS security staff levels to the relative equivalent utilized to confine the state's peak prison population costs average $52,870.70 per inmate a year. This change in DOCCS cost effectiveness is the direct result of the oversized personnel cost associated with incarceration. Returning to a 3.3 to 1 inmate to guard ratio represents a workforce optimization which increases prison cost effectiveness in New York State.

Equity:

A reduction in the prison workforce, particularly a reduction in highly compensated correctional officers, will have a strong negative impact on local economies dependent on DOCCS employment. Over the ten year period, this option eliminates 7,518 full time correctional officer positions. As a result, local economic activity within correctional facility towns may suffer. While this produces lower equity relative to status quo based on this criteria, the state meaningfully reduces incarceration costs, presenting a major trade-off.

Implementation:

Initiating a workforce optimization regarding correctional officers will likely face heavy challenges regarding implementation. Areas with heavy economic reliance on DOCCS employment will be particularly resistant to any policy which threatens their livelihoods. Additionally, the union which represents correctional officers and state police in New York will likely oppose workforce reductions regardless of the inefficiency of current staffing levels. Moreover, DOCCS is presently able to make force necessary alterations to its staffing and facility utilization. As DOCCS has not reduced its own staffing as it's outputs fell significantly over the past ten years, it is likely that the

bureaucracy will resist these changes even if they come from a legislative mandate. Thus, workforce optimizations will not be easy to implement. In order to achieve workforce optimization, facilities with layout requirements for excess personnel should be closed or consolidated first so that staffing reductions do not interfere with facility operations or DOCCS inmate service administration.

Option 5: Legislative Cap on Overtime in Prisons

In 2019 DOCCS employees earned 117.8% more in overtime compensation than the agency outlayed in 2010 (NYS Office of Budget and Policy Analysis, 2020). The steady increase in overtime compensation since 2010 led to DOCCS spending between $200 million and $300 million annually on overtime compensation for the past five years. Under this option the legislature passes a new law which caps the number of hours which a prison worker may work at 90 hours total within a two work week period. In 2018 about 37%, of the agency's 30,000 correctional workers, received overtime pay at an average rate of about $52 per overtime hour. Correctional employees who reported overtime hours, on average reported about fifteen hours of overtime during their two business week pay periods (NYS Office of Budget and Policy Analysis, 2020). Under the new legislation, no employee working in detention facilities may work more than 50 hours a week, or 90 hours in a given two week period. Thus, the maximum number of overtime hours a correctional employee may work is ten hours split among any given two week period. This will force DOCCS labor supervisors to implement more efficient staffing procedures and reassess its labor needs in order to comply with the law. Additionally, the new law will prevent employees from intentionally collecting overtime postings in excess of ten hours per pay period.

Political Feasibility:

Over the past ten years overtime compensation has increased substantially across New York State's agencies. DOCCS overtime spending consistently accounts for nearly a third of the state's total outlays for overtime. The state currently faces budget shortfalls due to the impact of COVID-19 on state spending and revenue. Considering DOCCS has a very large number of security staff relative to its inmate population, policies which address the rampant use of overtime by DOCCS employees are particularly attractive to lawmakers looking to cut excess state spending. Moreover, the death of Jeffery Epstien while his overworked guards slept highlights the need for oversight in an industry where excessive overtime contributes to physical risks for staff and their charges.

Cost and Relative Savings:

Under this option which caps overtime in prisons, the net present value of the ten year DOCCS cost projection is $22,177,413,991. In order to project the impact on state spending, I'll first project the correctional labor force for each year of analysis before subtracting the difference between overtime reporting under baseline conditions and overtime reporting under the following conditions. I'll then subtract this difference from the baseline DOCCS spending projection. In terms of the net present value, DOCCS spending under this option is about $512 million less than the baseline projection.

Considering that under this option correctional workers may not work more than 50 hours in a given week, nor more than 90 hours in any given two week period, prison labor supervisors will have to utilize the workforce more efficiently in order to avoid gaps in coverage. Additionally, considering only 37% of DOCCS employees reported overtime hours, and overtime assignments are largely elective and based on employee seniority, over 60% of DOCCS employees display a revealed preference against overtime assignments. Assuming that forcing an employee to work overtime against their preference is more difficult than optimizing scheduling from a supervisory standpoint, labor managers will likely pressure DOCCS administrators to close additional posts and further consolidate facilities. As such, I'll assume a small increase in the number of employees reporting overtime, 40% in the first two years of the projection to account for mandatory assignments before returning to the 37% of employees with a revealed preference for overtime assignments. I'll calculate the maximum amount of overtime compensation under these conditions using the average overtime compensation rate of $52 an hour.

Cost Effectiveness:

Capping the amount of overtime employees may work to ten hours per pay period distributed such that no employee works more than 50 hours a week, or 90 hours in any given two week period, saves between $60 million and $70 million each year of the analysis. Using the net present value of the total projected cost from 2021 to 2030 as the numerator, and the baseline projection regarding the number of inmates as the denominator, the cost effectiveness of DOCCS under this alternative is $56,758.90 per inmate per year.

Equity:

This policy does not alter the employment opportunities for inmates upon their release, nor does it eliminate correctional staff positions outright. Equity under this status quo mirror is low due to poor opportunities that already exist for employment in the post-release period. This option also produces low community equity considering correctional officers who prefer overtime collection will no longer be able to collect as much compensation.

Implementation:

This policy will likely face pushback from correctional staff themselves. The current policy allows correctional workers to enhance their earnings substantially by engaging in overtime seeking behaviors. Additionally, supervisors will initially insist that they cannot properly staff their facilities if overtime is capped. In order to reduce DOCCS reliance on overtime, the agency's leaders will need to adopt more efficient staffing and facility utilization practices, something which the agency has resisted thus far. Therefore, it is likely that the bureaucracy will resist an overtime cap coming from a legislative mandate citing its security needs.

Outcome Matrix and Recommendation

Legislators in New York should mandate a return to historic security staffing ratios. This policy option provides the most significant cost savings, resulting in the highest cost-effectiveness rating among the options analyzed. While it does not address mass incarceration itself, other policies in the state continue to drive a reduction in the prison population over the next ten years. Moreover, reducing the inmate population without addressing the personnel costs which account for the majority of spending produces an increasing average cost of incarceration. Such an increase in average cost while the service provision is largely unchanged implies less cost-effective practices.

	Political Feasibility	NPV of Ten Year Cost/ Relative Savings	Cost-Effectiveness	Community Equity	Implementation
Option 1: Status Quo	High	Cost: $22,689,361,904 Savings: NA	Low: $58,069.20 per inmate a year	Low	High
Option 2: Controlled Substance Decrim.	High-Medium	Cost: $22,624,142,460 Savings: $65,219,444	Low: $58,503.90 per inmate a year	High	High
Option 3: Statewide Modified Ban-the-Box	Medium	Cost: $22,557,292,559 Savings: $132,069,345	Low: $65,332.70 per inmate a year	High	Low
Option 4: Reduce Security Staffing	Medium	Cost: $20,658,164,069 Savings: $2,031,197,835	High: $52,870.70 per inmate a year	Low	Low
Option 5: Cap on Overtime	Medium	Cost: $22,177,413,991 Savings: $511,947,913	Medium: $56,758.90 per inmate a year	Low	Low

While implementation of these workforce changes will face strong opposition, COVID-19 spending in New York increases the political feasibility of divesting from an inefficient prison system. Identifying legislators without strong constituent ties to DOCCS employment will be a key component in pushing for this policy. The current union contract between the state and the correctional workers expires in 2023. If the union or its representatives refuse to accept reasonable position eliminations, then the state may utilize the contract expiration for renewed negotiations.

Implementation

Once state lawmakers mandate a return to the inmate to guard ratio of 3.3 inmates for every guard over the next ten years, DOCCS leadership will need to begin preparations for reducing its security staff relative to the inmate population. In order to achieve the prescribed ratio by 2030, DOCCS will need to eliminate nearly 752 positions each year. As the Department of Corrections and Community Supervision currently maintains the authority to do this without a legislative mandate, it seems the agency lacks the ability or the willingness to make these changes. Thus, DOCCS will likely need outside oversight to ensure the agency properly plans and initiates an implementation strategy. The following is intended as a guide to reduce staff while mitigating potential challenges to its services.

Identify Opportunities:

1. DOCCS should identify correctional officers who are close to retirement and encourage them to retire early. As these officers are nearing retirement, expedited exits will have a smaller impact on their personal future planning than a new career hire. Additionally, these officers are the most expensive to employ due to their long service histories. As such, DOCCS should assess its ability to offer financial incentives for early retirement based on its expected cost savings.
2. DOCCS should identify which of its facilities are best suited for inmate supervision with minimal staff. As a corollary it should identify facilities which require disproportionately large staff shifts due to their layouts. If possible, inmates in facilities with large staff requirements should be transferred to facilities with minimal staff requirements.
3. DOCCS should assess its capacity regarding available beds across its facilities. It should identify opportunities to further consolidate inmates into fewer facilities.
4. NYS should begin offering transfers to other agencies for employees when positions open.

Actions:

1. After identifying opportunities to consolidate inmate populations, DOCCS should generate a planned timeline of inmate consolidation and facility elimination.
2. DOCCS should inform its employees of this plan to allow individual choices regarding voluntary staff departures.
3. DOCCS and New York State must attempt to place security staff in other open state positions.
4. DOCCS should then consolidate inmates and close guard posts and facilities as planned.

Appendix

Projecting Cost and Population

In order to measure the cost effectiveness of each alternative I first produced a status quo cost estimate using data sourced from DOCCS budget actuals and the 2021 spending projection from openbudget.ny.gov. Using the annual totals from 2010 to 2020, I adjusted each for inflation using the BLS CPI inflation calculator to standardize spending to 2020 dollars. I plotted the standardized annual spending totals as data points in a scatter plot in, then plotted a line of best fit. If I included the 2020 cost data, the annual cost was projected to grow rather than decline. I then omitted the spending data for 2020 which reflected the pandemic's cost on the prison system.Considering the population projection I employed also uses pre-COVID-19 data, omitting the COVID-19 related spending anomaly allows for the comparison of cost and population data. After omitting 2020 DOCCS spending data, I modeled the status quo cost for every year through 2030 using the calculated line of best fit of y=-12,378.88(x)+28,144,045.22 where y is annual spending in thousands of dollars, and x is the year of consideration.

I utilized a baseline New York State prison population model produced by the Vera Institute of Justice, which extended to 2030 as a model for the state's prison population. Importantly, Vera produced this model using pre-COVID-19 population predictions and pre-COVID-19 prison population data to formulate a linear model of the DOCCS inmate population from 2021 to 2030. Rather than reproduce this model, I checked it against the baseline spending projection to assess population accuracy relative to expected savings due to population reductions in terms of the per capita marginal cost to incarcerate one inmate for a year in New York. The difference between projected savings under my cost model, and those expected due to the inmate population reductions in the Vera population model alone was about $200,000 a year. Considering the magnitude of the DOCCS budget, such a small difference confirmed the accuracy of the population model.

To project the costs under each policy option, I made adjustments to the baseline calculation which reflected the following assumptions for each policy:

Option 2:
The only change in cost results from changes in the inmate population each year under the program. Decriminalizing controlled substances to eliminate new prison sentences for possession results in a decline of about 200 inmates a year over the next ten years compared to baseline estimates (ACLU, 2019). Additionally decriminalizing possession may allow around 2,000 existing inmates early release or treatment options. Release and treatment transfers for existing inmates will likely occur within a relatively short time,

thus the population reduces by an additional 500 inmates a year over the first four years compared to baseline. While the end population is only 200 inmates fewer than the baseline projection, decriminalizing possession of controlled substances reduces the total number of years served by inmates over the ten year projection by over four thousand years of incarceration time. Moreover, early release or treatment alternatives for those presently serving time for possession allows for a quick decline in population over the first few years after the policy begins. To model the prison population under this option I subtracted 700 inmates from the baseline population total for the years 2021 through 2024, then 200 in each subsequent year through 2030. I multiplied the absolute value of the difference between the annual inmate population under baseline and the annual inmate population under option 2 by New York's stated per capita marginal cost of incarceration. I then subtracted that figure from the corresponding status quo cost figure, resulting in the annual cost projection under option 2 for each year of analysis.

Option 3:
The only change in cost results from changes in the inmate population each year under the program. I assumed that expanded employment opportunities reduce recidivism by about 10%, as suggested by cited studies. Considering the present three year recidivism rate of 43% and releases over 20,000 people each year, the reduction in recidivism amounts to an inmate population reduction of about 300 additional individuals each year per cohort. Recidivism reductions have lasting effects on prison admissions, the annual population reduction from baseline begins at 300 in the first year, 600, in the second, then 900 in all subsequent years to reflect the three years following a cohort's release. This results in an inmate population of about 6000 fewer inmates in ten years. Additionally, total years of incarceration over the ten year period decreases by over 45,000 years. I multiplied the absolute value of the difference between the annual inmate population under baseline and the annual inmate population under option 3 by New York's stated per capita marginal cost of incarceration. I then subtracted that figure from the corresponding status quo cost figure, resulting in the annual cost projection under option 3 for each year of analysis.

Option 4:
As option 4 does not affect the inmate population, I carried over the baseline population values. To calculate projected DOCCS spending under this option which requires DOCCS to reduce its guard staff by 7518 positions by 2030, I assumed a linear staff reduction. Using BLS data noting the average salary of NYS correctional guards at $66,000 a year to estimate this policy's impact on spending. I multiplied the average salary by the number of guard positions which were eliminated in the given year and all preceding years in order to calculate the annual savings from reduced employment for

each year of my projection. I then subtracted the savings from the baseline cost projection for the corresponding year to produce annual total cost figures.

Option 5:
As option 5 does not affect the inmate population, I carried over the baseline population values. In order to calculate the impact on DOCCS spending of an overtime cap, I projected the prison labor force by using historic employment data. I plotted the data as a scatter plot and utilized the line of best fit to calculate the projected workforce assuming the historic rate of decline continues. I then calculated the proportion of employees collecting overtime using historic rates. I assumed a small increase in the number of employees reporting overtime, 40% in the first two years of the projection to account for mandatory assignments before returning to the 37% of employees with a revealed preference for overtime assignments. I calculated the maximum amount of overtime compensation under these conditions using the average overtime compensation rate of $52 an hour. I then multiplied the maximum overtime compensation by the number of workers reporting overtime based on the proportion of overtime reporters given the total workforce. I then subtracted this figure from the average untreated baseline overtime reporting expected. I subtracted the difference between expected and projected overtime reporting in each year from the status quo baseline cost projection in order to calculate annual total spending under option 5.

Calculating Cost Effectiveness

I calculated the cost effectiveness of each option by calculating the net present value of the sum total of the projected costs from 2021 through 2030 for each option. I used each option's net present value as the numerator for cost effectiveness. The denominator, or outcome, is years of incarceration presided over, which I calculated by taking the sum total of the ten year prison population. I divided each option's net present value of total cost by the number of years of incarceration presided over to generate cost effectiveness in terms of the average cost of incarcerating one individual for one year.

Cost Projection*

Policy	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
baseline	3858337	2912696	3113949.86	3101570.98	3089192.1	3076813.22	3064434.34	3052055.46	3039676.58	3027297.7	3014918.82
option 2		2897357.348	3098611.208	3086232.328	3073853.448	3072430.748	3060051.868	3047672.988	3035294.108	3022915.228	3010536.348
Option 3		2906122.292	3100802.444	3081849.856	3069470.976	3057092.096	3044713.216	3032334.336	3019955.456	3007576.576	2995197.696

Option 4		2863064.000	3014685.860	2952674.980	2890664.100	2828653.220	2766642.340	2704631.460	2642620.580	2580609.700	2518598.820
Option 5		2851682.501	3053246.405	3029488.522	3017479.695	3005470.867	2993462.040	2981453.212	2969444.385	2957435.557	2945426.730

Inmate Population Projection

Policy	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
baseline*	42123	41568	41012	40458	39903	39349	38795	38242	37683	37129	36573
decriminalize	42123	40868	40312	39758	39203	39149	38595	38042	37483	36929	36373
recid.		41268	40412	39558	39003	38449	37895	37345	36785	36229	35673

*The inmate population projections under options 4 and 5 are identical to the baseline

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