

**Investing in What Works:
“Pay for Success” in New York State
*Increasing Employment and Improving Public Safety***

Detailed Project Summary

March 2014



This Project Summary contains a summary of the provisions of the Pay-for-Success Intermediary Contract referred to herein. Statements made with respect to the provisions of that contract are not necessarily complete. This Project Summary is not intended to offer an interpretation of the actual document. Readers must reference the actual document for complete information about its provisions. This Project Summary is for information only and is not an offer to sell or solicitation of an offer to buy any security.

TABLE OF CONTENTS

INTRODUCTION	1
PROJECT CONTEXT	1
ROLES AND TIMELINE	4
RANDOMIZATION AND ENROLLMENT	7
INTERVENTION	8
OUTCOME METRICS AND MEASUREMENT	8
PERFORMANCE-BASED PAYMENTS	13
APPENDIX A. DETAILED ROLES AND RESPONSIBILITIES	16
APPENDIX B. PROJECT TIMELINE	18
APPENDIX C. PROJECT ELIGIBILITY CRITERIA	19
APPENDIX D. TECHNICAL EVALUATION DESIGN	20
APPENDIX E. OUTCOME PRICING METHODOLOGY	22
APPENDIX F. HYPOTHETICAL PERFORMANCE-BASED PAYMENTS	25

INTRODUCTION

This document provides an overview of the first State-led Pay for Success and Social Impact “Bond” (SIB) project in the nation including:

- The rationale for choosing the Pay for Success model to address employment and recidivism
- The project’s intervention and evidence of its ability to achieve social impact
- The metrics for evaluating the intervention’s effectiveness
- The methodology used to calculate performance-based payments

The Appendices include the technical detail behind each of these components. Complete information can be found in the actual Pay for Success Intermediary Contract.

PROJECT CONTEXT

The Recidivism Challenge

In the United States

Each year, nearly 700,000 individuals are released from prisons nationwide.¹ Many of these formerly incarcerated individuals will continue to engage in criminal behavior and return to prison or jail (“recidivate”): two-thirds are rearrested and half return to prison within three years of their release.² Some of these individuals are at higher risk of recidivating than others. Those that have more serious prior convictions (such as violent assault), fewer connections in the community (such as ties to family), and less support (such as a residence and job) upon their return are considered to be at higher risk of returning to prison or jail.

Recidivism results in real social and financial costs to society. Formerly incarcerated individuals face numerous challenges, including barriers to finding a job upon release. Nearly two-thirds of individuals released from prison and currently under parole supervision lack employment. These and other challenges result in economic instability, increased criminal activity, and ultimately a greater burden on the public sector’s criminal justice and welfare system. With correction costs rising dramatically over the last 20 years, prison spending has become the fastest growing state budget item after Medicaid.³ In 2007, more than 23 million criminal offenses were committed, costing \$15 billion in economic losses to victims and \$179 billion in government expenditures in America.⁴

In New York State

In New York State (“NYS” or “State”), recidivism costs millions of dollars each year, jeopardizes public safety, and severely impairs the lives of the formerly incarcerated and their

¹ Carson, E. Ann and William J. Sabol, “Prisoners in 2011,” Bureau of Justice Statistics Bulletin (2012): 1, accessed March 5, 2014, <http://www.bjs.gov/content/pub/pdf/p11.pdf>.

² “Reentry Trends in the U.S.,” Bureau of Justice Statistics, accessed March 5, 2014, <http://www.bjs.gov/content/reentry/recidivism.cfm>.

³ “Recidivism’s High Cost and a Way to Cut It,” *New York Times*, April 27, 2011, accessed March 5, 2014, <http://www.nytimes.com/2011/04/28/opinion/28thu3.html>.

⁴ Kathryn E. McCollister, Michael T. French, Hai Fang, “The Cost of Crime to Society: New Crime-specific Estimates for Policy and Program Evaluation,” *Drug and Alcohol Dependence*, Volume 108, Issues 1–2, 2010..

families. In 2013, 23,989 inmates were released from prison to communities across the State.⁵ In NYS, over half of these individuals are classified as high-risk⁶; such high-risk individuals are estimated to spend an average of 460 days incarcerated in prison or jail per person in the five years after their release.⁷

An Evidence-Based Programming Solution

Research indicates that recidivism and its costs can be mitigated. In particular, stable employment can be an important factor in success upon release from prison. In NYS, for instance, estimates indicate that 44 percent of formerly incarcerated individuals, who are under community supervision and without employment, return to prison within two years, compared to 29 percent with part-time and 23 percent with full-time employment.⁸ However, the stigma of a criminal conviction, limited or no work history, minimal family and community supports, and poverty contribute to the significant difficulties facing the formerly incarcerated in gaining employment. The lack of basic education and occupational skills are also obstacles. Amongst the Center for Employment Opportunities (“CEO”) participants, reading and math skills of formerly incarcerated individuals average at a seventh grade level, only about half have earned high school diplomas or GEDs, and very few possess any higher education.⁹ However, analysis of the available employment services in New York City (“NYC”) indicates that less than a third of individuals under community supervision who lack employment are enrolled in targeted workforce support services.¹⁰

Recognizing the importance of employment in reducing recidivism, strengthening families, stabilizing local communities and jumpstarting local economies, Governor Andrew M. Cuomo has led a paradigm shift in how NYS assists the formerly incarcerated and connects them to jobs. The resulting “Work For Success” initiative seeks to improve the process by which those who have served time in prison are trained and connected to businesses looking to hire. The initiative matches selected higher and lower risk individuals to the right employment program after incarceration.

A Performance-Based Contracting and Financing Model

To complement the broader Work for Success initiative, focus efforts on delivering results for the hardest-to-serve formerly incarcerated individuals, and to ensure that NYS resources are *only expended* if results are achieved, the State has employed an innovative mechanism to contract for and finance recidivism and employment services for high-risk formerly incarcerated individuals: a “Pay for Success” (“PFS”) contract funded with a Social Impact “Bond”¹¹ (“SIB”).

⁵ NYS DOCCS, “Admissions and Releases Calendar Year 2013,” accessed March 5, 2014, www.doccs.ny.gov/Research/Reports/2014/Admissions_and_Releases_2013.pdf.

⁶ NYS uses a scientifically valid risk assessment instrument called COMPAS to score the level of risk and need for each individual leaving prison for community supervision. High-risk individuals are defined as those with a 50% or greater chance of reconviction over 5 years and correspond to Supervision Levels 1 and 2.

⁷ NYS DOCCS Research and NYS Division for Criminal Justice Services Analysis, 2012.

⁸ NYS DOCCS Research Analysis, 2012.

⁹ Center for Employment Opportunities, 2012.

¹⁰ Social Finance Analysis, 2013.

¹¹ A SIB is not a bond. Instead, it is an investment in which repayment of principal and a rate of return is tied to social outcomes. If the project does not achieve sufficient performance, then investors could lose their entire principal.

The Pay for Success Model

A PFS contract is a performance-based contract in which the government contracts with an intermediary organization to deliver social services in exchange for payment upon achievement of outcomes, such as a reduction in incarceration. The intermediary partners with local social service provider(s) to deliver services designed to achieve the desired outcome. The government only pays if – and to the extent that – those social outcomes are achieved (“performance-based payment(s)”).

A SIB is a method for financing a PFS contract in which the intermediary arranges upfront working capital from private investors to fund the social services designed to achieve the contract’s desired outcomes. The government commits to making performance-based payments, which the intermediary uses to repay investors, if minimum outcomes are achieved according to predefined terms.

This approach confers a number of benefits to participating stakeholders, such as:

- **Generating savings and other benefits for the public:** The amount of the government’s performance-based payment is based on the savings and benefits estimated to accrue to the public sector at any given level of performance. The PFS structure aligns incentives such that all partners are focused on the same outcome measures, selected to reflect the underlying value of the intervention to participants and the public sector. Aligned incentives and cross-sector collaboration have the potential to further spur innovation and cost-effectiveness.
- **Enabling efficient use of taxpayer dollars:** This innovative form of performance-based contracting and financing allows the government to purchase social results (e.g., increase in employment) rather than social services (e.g., job training) that may not achieve desired results, thus enabling more effective and efficient use of taxpayer dollars. PFS therefore transfers performance risk to the private sector by tying payment strictly to desired results. With payment determined by a rigorous cost-benefit analysis and evaluation, the use of taxpayer funds becomes more transparent as well.
- **Facilitating investments in prevention:** As a form of bridge financing, a SIB may help government overcome the timing discrepancy between costs and savings that hinders investment in preventive interventions despite their significant, long-term payoffs.
- **Supporting social service providers:** SIBs allow the public and private sectors to become better partners for service providers by giving them access to predictable, flexible and multi-year funding to build capacity and scale evidence-based interventions.
- **Advancing knowledge about “what works”:** The interventions financed through SIBs will be rigorously evaluated across a range of social outcome metrics. This will deepen the government’s understanding of what interventions work and how to refine them to achieve even better social results. Such advancement in knowledge can empower NYS and other jurisdictions to make smart investments in a growing set of proven and sustainable preventive interventions that have the potential to pay for themselves by reducing future spending on remedial services.

The First State-Led PFS/SIB Project

Announced in December 2013, the NYS PFS/SIB project (“the project”) was the first state-led PFS/SIB project to launch in the United States and the largest in the world at the time of launch.

The five and a half year project will expand a comprehensive employment intervention to serve 2,000 formerly incarcerated individuals in NYC and Rochester with the goal of increasing their employment and thus reducing recidivism.

Evidence of Intervention Impact

The SIB-financed intervention (described in further detail in the “Intervention” section) previously underwent a rigorous, independent randomized control trial (“RCT”) evaluation to determine its impacts on participants’ rates of employment and recidivism. The evaluation was conducted by MDRC, a nonprofit, nonpartisan social and education policy research organization. The MDRC study found that CEO’s program reduced recidivism¹² by between 9 and 12 percent among all participants¹³ and by between 16 and 22 percent among those “recently released” or those who enrolled within three months after release from prison. The MDRC study also showed that CEO reduced days incarcerated by 30 percent for a high risk sub-population, or those individuals at high risk of recidivism (based on a risk index determined by age, number of prior convictions and other static factors).¹⁴ As described below, this project will specifically measure days incarcerated rather than reduction in arrests, incarcerations and convictions and will target recently released, high-risk individuals as determined by NYS’s COMPAS risk assessment tool, which similarly statistically rates an individuals’ risk of recidivism based on key variables such as age and criminal justice history. Further evidence of the intervention’s impact can be found online in MDRC’s publically available report, “More than a Job: Final Results from the Evaluation of the Center for Employment Opportunities (CEO) Transitional Employment Program.”¹⁵

ROLES AND TIMELINE

Stakeholder Roles and Responsibilities

This multi-sector project represents the collaborative effort of leaders from government, nonprofit organizations and outside experts to solve common challenges. The State, Social Finance, CEO, Chesapeake Research Associates, and over 40 private investors (cumulatively, “the partners”) each play critical roles in this unique endeavor to improve social outcomes in NYS.

The project was conceived in 2012 when Governor Cuomo outlined the State’s priority to employ the Pay For Success model to reduce recidivism and increase employment among high-

¹² Recidivism is measured in the MDRC study using three metrics: the percentage difference between the percent of treatment and control group members ever arrested; ever incarcerated; and ever convicted. The range is related to the difference in impacts for each metric.

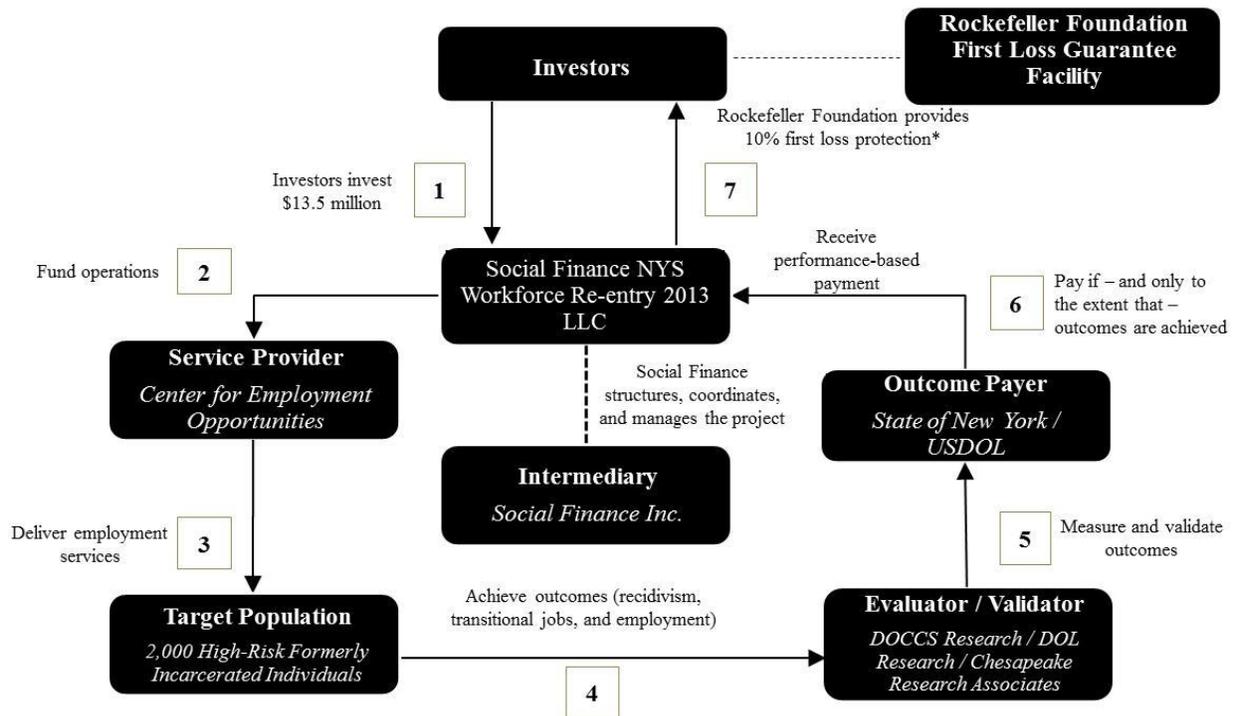
¹³ This includes individuals of all risk classification who enrolled and were assigned to the treatment group at any point during the study period.

¹⁴ The MDRC study did not report specifically on CEO’s impact on the “high-risk and recently-released” sub population.

¹⁵ MDRC, “More Than a Job: Final Results from the Evaluation of the Center for Employment Opportunities (CEO) Transitional Employment Program,” *OPRE Report* 2011-18. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, DHHS, 2012, http://www.mdrc.org/sites/default/files/full_451.pdf.

risk formerly incarcerated individuals. NYS partnered with Social Finance, a nonprofit social impact financing and advisory firm, to design the project. After analyzing the needs of high-risk formerly incarcerated individuals and conducting thorough due diligence on interventions and social service providers, Social Finance selected CEO, a nonprofit employment service agency for formerly incarcerated individuals, as the entity to deliver the intervention designed to achieve the State’s policy goals. NYS, Social Finance, and CEO worked together over the next year to structure the project with the help of law firm Jones Day. NYS also obtained pro bono technical assistance from the Harvard Kennedy School Social Impact Bond Technical Assistance Lab (“SIB Lab”) to develop and implement the project. Figure 1 provides an overview of each stakeholder’s role in the project.

Figure 1. New York State Pay for Success / SIB Model



* First loss guarantee facility applies to non-national or regional foundation investors only.

Impact investors and philanthropic foundations have invested \$13,500,000 to fund CEO’s delivery of this intervention and Social Finance’s management of the project. NYS Department of Corrections and Community Supervision Division of Program Planning, Research, and Evaluation (“NYS DOCCS Research”) will be executing the RCT evaluation methodology developed and agreed upon by the partners. Chesapeake Research Associates will be reviewing implementation of the methodology and verifying the results of the evaluation. NYS will make performance-based payment(s) in proportion to the level of impact achieved.

Appendix A further details the roles and responsibilities of each party.

Project Budget

The total cost of this intervention is \$13,500,000, of which more than 90% will fund CEO's employment intervention for 2,000 formerly incarcerated individuals. The remaining funds will cover:

- Social Finance's project and risk management services,
- Jones Day's legal work, and
- Bank of America Merrill Lynch's placement of the investment with impact investors and other entities through its financial platform.

These expenses are paid by funds raised from investors and will not be recouped unless the project achieves sufficient social impact. The costs for the State's project and data management and for Chesapeake Research Associates' validation will amount to \$1,456,147. The US Department of Labor (US DOL) grant awarded to NYS for this project and state funds will cover these expenses, which are paid regardless of outcomes.

The highest total potential budget for this project is \$23 million, including maximum performance-based payments and state administrative and validation costs. NYS only makes performance-based payments if and to the extent that the project achieves its pre-defined social outcomes outlined in the "Outcome Metrics and Measurement" section. The "Performance-Based Payments" section details how these payments will be calculated, and Appendix F provides illustrations of these performance-based payments at various levels of performance.

Implementation Timeline

The project will be implemented over five and a half years in two phases. Appendix B includes an illustration of the project timeline. Each phase will include the following activities:

- **Capital Drawdown:** Capital needed to fund the intervention will be drawn from investors at the beginning of each phase.
- **Randomization:** Eligible individuals will be randomly assigned to the treatment group (those designated to enroll with CEO) and the control group (those not designated to enroll with CEO).
- **Enrollment in Intervention:** 1,000 formerly incarcerated individuals will be enrolled in CEO's comprehensive employment intervention in each phase of the project.
- **Observation:** Data on the outcomes of each individual will be collected from the time they are released from prison until the end of the observation period of the relevant phase (approximately 3 years after the phase begins).
- **Measurement:** The employment and recidivism outcomes of the treatment group will be compared to the outcomes of the control group.
- **Performance-Based Payment:** NYS will make a performance-based payment for each phase if and to the extent that the intervention has an impact on employment and recidivism rates per the metrics outlined in the "Performance-Based Payments" section. Any performance-based payments for Phase I will be funded by the grant awarded to NYS by US DOL. Any performance-based payments for Phase II will be funded by NYS.

RANDOMIZATION AND ENROLLMENT

The following sections describe how eligible individuals are identified, randomized and enrolled in CEO's intervention. The partners structured the operations of the project to meet the following key objectives:

- Serve 2,000 eligible individuals;
- Minimize the time between release and enrollment at CEO;
- Involve a minimal number of parole bureaus to contain operational complexity; and
- Maintain a sufficiently large control group to produce a robust evaluation.

Identification and Randomization

NYS DOCCS Research identifies eligible individuals in NYC and Rochester and randomly assigns them to the treatment and control groups ("randomize") on a regular basis. Appendix C outlines the specific criteria utilized to identify these eligible individuals.¹⁶

In randomizing eligible individuals, NYS DOCCS Research will "block" on COMPAS Supervision Level (Level 1 and Level 2) and geography (Rochester and NYC), creating a total of four blocks (Rochester Supervision Level 1, Rochester Supervision Level 2, etc.). In a block-randomized design, randomization takes place separately within each block. This ensures that the treatment and control groups are balanced on these key factors.¹⁷

Treatment group members are designated to receive the project's intervention and will be systematically referred to CEO (see "Referral and Enrollment" section). Control group members are treated "as usual" – parole officers will not know if a parolee is part of the control group and will assess their needs and make referrals to services per standard procedures. For this reason, it is possible that some control group members will receive CEO services.¹⁸

Referral and Enrollment

After each randomization, NYS DOCCS Research will send the list of treatment group members to NYS parole officers, CEO, and Social Finance for referral, outreach, follow-up and monitoring. The list of control group members will not be released and control group members will be assigned to parole officers according to standard procedures.

Parole officers are instructed to refer all treatment group members to CEO for participation in its employment intervention. Immediately after release, the treatment group member will meet with his parole officer(s) who will inform him that participation with CEO is a special condition to his release, although refusal to participate is not a parole violation and his decision to participate is

¹⁶ An individual is assigned a Supervision Level using the COMPAS risk assessment tool based on an individual's level of risk of returning to incarceration and necessary re-entry support. This project will focus on individuals with COMPAS Supervision Levels 1 and 2, the highest levels of supervision employed by NYS.

¹⁷ While randomization should ensure - with a large enough sample - that the treatment and control groups are similar across observable (e.g. race) and unobservable (e.g. motivation) characteristics, in a finite sample it is possible that the characteristics of the two groups will vary based upon chance.

¹⁸ See "Outcome Metrics and Measurement" section for how the evaluation will adjust for this cross-over.

voluntary. Staff from CEO may also be present at this meeting to explain more about the employment services and facilitate his enrollment. Treatment group members will enroll at CEO's facilities during orientation sessions. CEO seeks to enroll members immediately after release, but individuals may enroll at any point during the observation period. Once enrolled with CEO, participants will engage in comprehensive employment services outlined in the "Intervention" section.

INTERVENTION

The project's intervention is based on the theory that high-risk formerly incarcerated individuals are less likely to reoffend if their employment needs are met when they are first released from incarceration. Through its comprehensive employment intervention, CEO provides life skills training, transitional jobs, job placement services, and post-placement support.

Life-Skills

After an initial orientation, individuals receive five days of life skills training, consisting of a curriculum that introduces participants to the expectations of the CEO program and of the workplace, and prepares them to interview effectively for jobs, including answering questions about their criminal convictions.

Transitional Jobs

Participants are then placed in short-term transitional jobs as part of work crews supervised by CEO staff. Participants provide maintenance, janitorial and grounds keeping services to public institutions and private companies, while learning important work skills, such as being on time and taking direction from a supervisor. Moreover, transitional jobs provide participants with both a documented work history and a daily paycheck from CEO during this critical post-release time.

Job Placement

While engaging in transitional jobs, participants meet at least once a week with CEO staff who provide one-on-one job search support, including further interview coaching, resume writing, and addressing barriers to full-time work. As participants are determined "job start ready" based on CEO's proprietary assessment, CEO's Job Developers connect participants with businesses willing to hire CEO graduates. Participants work approximately nine weeks of transitional employment, occurring over about four months, until successfully transitioning into an unsubsidized job.

Job Retention Support

Post-placement, former participants are supported by CEO's Retention Specialists who provide ongoing support, including workplace counseling, crisis management, and career planning for up to one year post-placement. "Rapid Rewards", which are monthly bonuses for meeting employment milestones, further encourage participants to retain full-time jobs.

OUTCOME METRICS AND MEASUREMENT

This section outlines the following:

- Definition of the project’s outcome metrics
- Rationale for the selection of these metrics
- Design of the primary evaluation methodology
- Design of the secondary (or “backstop”) evaluation methodology

The result of the evaluation will then be entered into the payment calculation outlined in the “Performance-Based Payments” section to determine the performance-based payment due to investors for each phase. NYS will make public the results from the evaluation.

Outcome Metrics

This project’s performance-based payments will be based on three outcome metrics: recidivism, employment, and engagement in transitional jobs. Project partners selected these outcome metrics based on the following criteria:

- Represent meaningful improvement in the lives of individuals served;
- Align with the intervention’s theory of change;
- Tied to public sector savings and other benefits;
- Captured in existing state administrative data systems; and
- Can be affected by the intervention, as demonstrated by prior evaluations.

These outcome metrics will be evaluated separately for each phase of the project.¹⁹

Recidivism Outcome

- **Definition:** Number of “bed days” which is equal to the sum of (1) the number of days a person spends in jail and/ or prison between initial release from prison and the end of the relevant observation period and, if a person is in prison at the end of the observation period, (2) the number of days remaining in his sentence, capped at 5 years from the date of his first release.
- **Rationale:** The bed days measure captures both the budgetary costs of incarceration and the victim and community impacts of new crimes since serious crimes result in longer sentences. This measure also rewards incremental participant progress towards successfully reintegrating into the community.²⁰
- **Data Source:** NYS Department of Corrections and Community Supervision (“NYS DOCCS”) administrative data systems.
- **Measurement:** Comparing the average number of bed days for treatment group members versus control group members between initial release from prison and the end of the relevant observation period.²¹

¹⁹ Phase I outcome payment will be determined based on the outcomes of the 1,000 individuals enrolled in Phase I. Phase II outcome payment will be determined based on the outcomes of the 1,000 individuals enrolled in Phase II.

²⁰ Bed days are a “frequency” measure, which rewards incremental impact and avoids creating perverse incentives for a service provider to forgo or halt services for those who return to prison. This is compared to a “binary” measure (such as whether an individual is ever re-incarcerated or not) in which case a service provider might have an incentive to prioritize individuals who had not “failed” versus those with the greatest need.

²¹ The outcomes of the treatment and control groups are observed for up to 3 years post-release for each phase of the project. To determine the outcome payment, this observed outcome will then be scaled to project the intervention’s

Employment Outcome

- **Definition:** Binary indication of positive earnings in the fourth quarter following release from prison. For example, if an individual is released from prison in the first quarter of 2014, then his employment outcome would be measured based on whether he had any positive earnings in the first quarter of 2015.
- **Rationale:** The partners agreed on a one-year time frame for the measurement of employment data in order to capture the intervention’s impact on employment after a participant’s engagement in a CEO transitional job.²²
- **Data Source:** NYS Department of Labor’s (“NYS DOL”) quarterly unemployment insurance wage data.
- **Measurement:** Comparing the employment rates of the treatment group versus the control group in the fourth quarter after an individual’s release from prison.

Engagement in Transitional Jobs

- **Definition:** Number of treatment group members who start a CEO transitional job during the relevant observation period.
- **Rationale:** Transitional jobs are a critical step in the process of achieving employment and avoiding recidivism, according to the intervention’s theory of change. This metric also captures the real financial value that the work performed in transitional jobs creates for the public sector.
- **Data Source:** CEO intervention data.
- **Measurement:** Count the number of treatment group members who engage in a CEO transitional job during the observation period.²³

Primary Randomized Control Trial (RCT) Evaluation Design

The impact of the intervention will be measured using a randomized control trial (RCT). The randomized approach eliminates selection bias associated with the presence of unobserved trait differences between the treatment and control groups and also has high statistical power such that fairly precise estimates are possible, even with smaller sample sizes.

Specifically, this project’s RCT evaluation uses an intent-to-treat (ITT) analysis and an instrumental variable (IV) approach. For employment and recidivism outcomes in each phase of

impact over five years, as described in the “Performance-Based Payments” section.

²² Most participants who enroll in CEO complete their transitional jobs before the 4th quarter after their release from prison. Therefore, participant earnings beyond this time period are likely from unsubsidized jobs. The fourth quarter is therefore the first opportunity for measuring earnings to learn about the impact of the intervention on longer-term attachment to the labor market.

²³ The evaluators will also measure the average hours that these individuals work in a CEO transitional job. As specified further in Appendix F, this will be used to determine the transitional job outcome price for the outcome payment calculation.

the project,²⁴ the evaluators, NYS DOCCS Research and NYS DOL Research, will:

- Measure the outcomes of each individual in the treatment and control groups.
- Measure the “per person served” impact of the intervention for each phase by:
 - **Weighting the data:** Weight the outcomes to ensure that outcomes are comparable across treatment and control group members released from prison at different times and to different regions.
 - **Calculating the intent-to-treat (ITT) effect:** Compare the weighted average outcomes of all individuals assigned to the treatment group to the weighted average outcomes of all individuals assigned to the control group.²⁵
 - **Calculating the instrumental variable (IV) estimate:** Adjust the ITT estimate for the treatment group members who did not receive services and for the control group members who did receive services.²⁶
 - **Validate the estimates:** The implementation of this evaluation methodology and the resulting outcome estimates will be reviewed by the validator.
 - **Adjust estimates for performance-based payment calculation:** Adjust the employment IV estimate to account for individuals who lack Social Security Numbers (and thus cannot be observed in NYS DOL data systems), and adjust the recidivism IV estimate to project impact over five years. These final outcome estimates will be reviewed by partners and entered into the performance-based payment calculation process outlined in the “Performance-Based Payment” section.

These steps are specified in greater detail below.

Weighting the Data

Since the percent of participants assigned to the treatment versus the control group may vary over time and across project sites, it is necessary to weight the recidivism and employment outcomes by randomization period and site (NYC versus Rochester) to produce valid impact estimates. See Appendix D for details on weighting.

²⁴ For the transitional job outcome metric, the evaluators will count the number of treatment group members who start a CEO transitional job.

²⁵ The ITT estimate compares the outcomes of all individuals assigned to the treatment group to the outcomes of all individuals assigned to the control group. However, since the intervention is voluntary, some treatment group members may choose not to participate or will fail to show up for services. Additionally, some control group members may end up enrolling with CEO. Therefore, the ITT estimate will be adjusted to assess the intervention’s impact on those who enroll in the intervention versus those who do not. This analysis, known as a “treatment on the treated” measure, will use an instrumental variables (IV) approach.

²⁶ The IV estimate will provide a valid estimate of the intervention’s impact on those who were induced to receive services as long as a significantly higher weighted fraction of individuals in the treatment group than in the control group enroll in CEO. The operational plan has been designed to minimize the risk that the fraction of the treatment group who enroll with CEO is not sufficiently higher than the fraction of control group members. For example, partners selected parole bureaus where CEO is either not currently active or has a low penetration. This also limits the risk to CEO that it experiences fall-off in participant flow required to meet its other contracts. Additionally, incentives have been incorporated into the procedures to encourage treatment group members to enroll in services. Close coordination between NYS DOCCS Operations and CEO, including strong hand-off processes for treatment group members, starting with referral by PFS Parole Officers to CEO, will further enable a high take-up rate of CEO services. NYS DOL, NYS DOCCS, Social Finance and CEO will closely monitor CEO participation by treatment and control group members and take appropriate remedies if the difference in take-up rates is not sufficiently large.

Weights will apply to the calculation of the recidivism and employment ITT estimates as well as to the calculation of the weighted rates of enrollment with CEO for the treatment and control groups for the IV calculation.

Calculating the Intent-to-Treat (ITT) Effect

For Phases I and II separately, the evaluators will calculate the ITT estimate for employment and recidivism outcomes, while weighting the data to account for variations in randomization ratios across period and site. The ITT estimate measures the difference between the average weighted outcomes for the treatment and control groups. See Appendix D for further details on the ITT calculation.

Calculating the Instrumental Variable (IV) Estimate

The IV estimate will be calculated by adjusting the ITT estimate to account for the fact that some members of the treatment group may not enroll in the intervention and that some members of the control group may enroll in the intervention. The IV estimate is calculated by dividing the ITT estimate by the difference between the weighted percentage of treatment group members that enrolled with CEO and the weighted percentage of control group members that enrolled with CEO. See Appendix D for further details on the IV calculation.

The IV estimate represents the per-person impact of the intervention on those served versus those not served. This provides a measure of the intervention's impact that is most relevant for future policy decisions about whether to scale the intervention statewide.

Validation of Outcomes

The Validator is responsible for verifying and validating that the collection and assessment of data and the calculation of outcomes was done in accordance with the specified methodology. The Validator will obtain and review regular project reports and be consulted as needed on the implementation of the evaluation and measurement process. After measurement has occurred for Phase I and Phase II separately, the Validator will conduct a thorough review of the data processing and statistical measures and procedures laid out in the PFS Contract to determine whether the outcome measurement and calculation was conducted using accurate data and the evaluation methodology agreed to in the PFS Contract.

Adjusting the IV Estimates for Payment Calculation

The IV estimates for employment and recidivism will be adjusted prior to calculating performance-based payments. Partners will adjust the employment estimate to account for individuals who lack a Social Security Number ("SSN") and will adjust the recidivism estimate to project impact over five years.

- **Employment:** Individuals may lack a SSN on file or have an incorrect SSN, which means that the employment outcomes of these individuals cannot be observed in NYS DOL data systems. A historical analysis by NYS DOCCS Research indicated that most of those meeting the project's eligibility criteria will have a valid SSN. Since the employment payments are a relatively small portion of overall performance-based payments (capped at \$2 million for each phase), individuals will not be screened in advance for SSN availability or validity. Instead, payments for employment will be adjusted to account for the fact that some treatment and control group members may not have a valid SSN at the time of randomization. In particular, the IV estimate of the employment impact will be divided by

the overall percentage of treatment and control group members for whom a SSN was available at the time of randomization.

- **Recidivism:** Recidivism performance-based payments based on the estimated public sector savings and benefits associated with a reduction in bed days over a five-year period. To translate the bed day outcome observed over 1-3 years into a 5-year equivalent outcome, the IV estimate of the recidivism impact will be multiplied by a scaling factor. The scaling factor is based on NYS analysis of data from 2006 and 2008 to 2010 of the historical relationship between 5-year bed days and 1-3 year bed days as well as analysis of the decay rate of intervention impacts on recidivism, and the average time that treatment group members were observed. The calculation of the scaling factor is specified in Appendix D.

The adjusted IV estimate for both outcomes will serve as the outcome input for purposes of determining NYS performance-based payments, as outlined in the “Performance-Based Payments” section.

Backstop Matched Historical Comparison Evaluation Design

If the difference in the rate of enrollment between the treatment group and the control group is insufficient, then a matched historical comparison methodology will be used to supplement the RCT in estimating outcomes. The matching methodology seeks to estimate the intervention’s impact by matching each individual in the treatment group to a similar individual who was released prior to the start of the project. While the matching methodology compares individuals who are similar based on observed characteristics, unlike in an RCT, it is uncertain if individuals will have similar unobserved characteristics, such as motivation. In addition, if environmental factors change over time, the matching methodology will be unable to determine what share of any measured impacts were due to the environmental factors versus the intervention. Hence, the matching methodology is viewed as a useful estimate of the treatment effect only when the RCT approach is not sufficiently informative.

PERFORMANCE-BASED PAYMENTS

Performance-based payments are a function of the overall estimated public sector benefits resulting from achieving the recidivism, employment, and transitional jobs outcomes. The performance-based payment calculation process follows three key steps:

1. **Apply minimum performance thresholds:** Determine whether outcomes meet pre-determined minimum levels of impact (“performance thresholds”) across each metric.
2. **Calculate public sector benefits:** For the final outcomes that meet the performance thresholds, apply a specific dollar amount (“price per outcome”) to calculate the associated public sector benefits.
3. **Apply payment schedule:** NYS and investors share the public sector savings and benefits according to the level of impact achieved.

Minimum Performance Thresholds

The project must achieve a minimum performance threshold before investors are eligible for a performance-based payment for that metric. If the intervention’s impact falls below all of these

levels, then NYS does not pay. Performance thresholds for payment were set so that government pays only when there is a high probability that results were achieved due to the intervention and not due to statistical noise. Table 1 describes the performance threshold that must be met or exceeded to trigger payment for each outcome metric.

Table 1. Minimum Performance Thresholds Required to Trigger Payment

Outcome Measure	Minimum Performance Thresholds
Reduction in Recidivism	Avoided Bed Days ≥ 36.8 (~8%)
Engagement in Transitional Jobs	Avoided Bed Days ≥ 36.8 (~8%)
Employment	Employment Rate Difference ≥ 5 Percentage Points

Public Sector Benefit Calculation

Partners determine public sector savings and benefits for each outcome that meets the minimum performance thresholds. The prices were determined before the project launched based on a rigorous cost-benefit analysis as outlined in Appendix E.²⁷ These public sector benefits include:

- **Recidivism:** The marginal cost of an additional day of incarceration in NYS and the cost to victims of crimes associated with those incarcerations.
- **Employment:** Greater tax revenue and reduced public assistance costs as a result of increased employment.
- **Transitional Jobs:** Value to the public sector due to services provided through CEO’s transitional jobs in government buildings.

The project’s outcome pricing methodology ensures that the government’s performance-based payments are never more than the savings and benefits estimated to result from the project’s impact, as illustrated in Table 2 and in Appendix F. Table 2 illustrates the price for each outcome in each phase of the project, and the equation used to calculate the public sector savings and benefits estimated to result from the project’s impact on each outcome measure.

Table 2. Public Sector Savings and Benefits Calculation

Outcome Measure	Price Per Outcome	Public Sector Savings and Benefits
Recidivism	Phase I: \$85 per day Phase II: \$90.1 per day	Average Reduction in 5-Year Bed Days * Price Per Outcome * Number of Participants
Transitional Jobs	Phase I: \$3,120 per person Phase II: \$3,307 per person	If average hours worked is greater than or equal to 111 hours: Number of Participants Engaged in Transitional Jobs * Price Per Outcome
	Phase I: \$20 per hour Phase II: \$21.2 per hour	If average hours worked is less than 111 hours: Number of PFS Participants Engaged in Transitional Jobs * Average Hours Worked *

²⁷ For Phase II payments, these prices are adjusted to account for inflation.

Outcome Measure	Price Per Outcome	Public Sector Savings and Benefits
		Hourly Price Per Outcome
Employment	Phase I: \$6,000 per person Phase II: \$6,360 per person	Percentage Point Difference in Employment Rates * Price Per Outcome * Number of Participants (capped at \$2,000,000)

Payment Schedule

For each outcome metric that meets or exceeds the performance threshold, the public sector savings and benefits are included in the calculation of performance-based payments. For each Phase I and Phase II, the performance-based payment will be the sum of:

- 100% of public sector benefits and savings for employment, not to exceed \$2,000,000.
- 100% of public sector benefits and savings for recidivism and transitional jobs outcomes up until the amount of the original investment in the applicable Phase (\$6,832,000 for Phase I and \$6,668,000 for Phase II).
- 50% of public sector benefits and savings for recidivism and transitional jobs beyond the value of the original investment for the relevant phase.

The total performance-based payment is capped for Phase I at \$11,095,000 and for Phase II at \$10,448,853.²⁸

Appendix F includes illustrations of the estimated public sector savings and benefits and performance-based payments to investors at varying levels of performance.

²⁸ For Phase I, the maximum performance-based payment is the difference between the \$12,000,000 US DOL grant awarded to NYS and the \$905,000 state and validator costs. For Phase II, the maximum performance-based payment is the difference between \$11,000,000 state funds allocated for this project and the \$551,147 in state and validator costs.

APPENDIX A. DETAILED ROLES AND RESPONSIBILITIES

Target Population

The “target population” refers to the specific sub-population to whom the project will provide the intervention. This project seeks to improve the employment and recidivism outcomes of 2,000 high-risk formerly incarcerated individuals. Appendix C outlines the specific criteria that will be used to identify these individuals.

Social Service Provider

The “social service provider” refers to the entity that delivers the SIB-financed intervention to the target population. [The Center for Employment Opportunities](#) (“CEO”), a nonprofit employment service agency for formerly incarcerated individuals, will receive funding to scale its evidence-based training and employment intervention to serve an additional 2,000 formerly incarcerated individuals over a four-year period. NYS DOCCS will continue to provide formerly incarcerated individuals who are under community supervision with case management services, and will coordinate closely with CEO to ensure participants obtain necessary employment supports.

Intermediary

The “intermediary” refers to the entity that structures the project, coordinates the partners, and manages the project over the course of five and a half years. [Social Finance, Inc.](#), a nonprofit social impact financing and advisory firm, will serve as the intermediary for this project. Social Finance identified the opportunity, conducted rigorous due diligence to select the intervention and provider, brought together the public and private sector parties that constitute the partnership and played a central role in negotiating the transaction. It will also provide performance management throughout the life of the project.

Investors

The “investors” refers to the entities that provide the upfront working capital to fund the project’s operations, including the intervention, project management, and legal expertise. Over 40 investors contributed to the \$13.5 million equity investment in a newly-formed vehicle, Social Finance NY State Workforce Reentry 2013 LLC. Key participants include:

- [Bank of America/Merrill Lynch](#) distributed this opportunity through its wealth management platform to private and institutional investors via a private placement offering. This marks the first time such an investment has been distributed on a leading wealth management platform to individual and institutional investors
- [The Robin Hood Foundation](#), New York City’s largest poverty fighting organization, committed early to a \$300,000 investment in the project.
- [Laura and John Arnold Foundation \(LJAF\)](#), a private foundation that currently focuses its strategic investments on criminal justice, education, public accountability, and research integrity, committed \$4 million to the project. Any returns on LJAF’s investment will be used to support future social innovation financing projects with the goal of rigorously evaluating programs and scaling those that are proven to have an impact.

[The Rockefeller Foundation](#) will provide a first-loss guarantee to protect up to \$1.3 million of investor principal, or approximately 10 percent of the total capital raised.

Outcome Payer

The “outcome payer” refers to the entity that, following a rigorous evaluation of an intervention’s impact, makes performance-based payment(s) in proportion to the level of social impact achieved. NYS is the outcome payer for this project, and has made up to \$21,543,853 available for performance-based payments (up to \$11,095,000 from a US DOL grant, and up to \$10,448,853 from NYS funds). For this project, the NYS Governor’s Office provided policy guidance. NYS Division of the Budget managed budget and legislative issues. NYS DOL served as the contracting partner for the intermediary. NYS DOCCS took on the operational responsibilities for the project.

Evaluators

The “evaluators” refers to the entities that will identify eligible individuals and conduct the evaluation of the project’s social impact. NYS DOCCS Research and NYS DOL Research will be executing the RCT evaluation methodology developed and agreed upon by the partners. This methodology is detailed in Appendix D. NYS DOL, Harvard Kennedy School Social Impact Bond Technical Assistance Lab, Social Finance, and Chesapeake Research Associates provided guidance in developing this methodology and will continue to provide support to the research team as needed to implement and monitor the evaluation.

Validator

The “validator” refers to the entity that will review and certify the implementation of the project’s evaluation methodology. [Chesapeake Research Associates](#), a public policy research and evaluation company, will independently validate the results of the evaluation. The verified social impact of the intervention will form the basis of the performance-based payments to investors.

Legal Counsel

[Jones Day](#), a global law firm, provided legal expertise on structuring the investment entity, negotiating the PFS Contract and the various securities laws and non-profit tax issues presented.

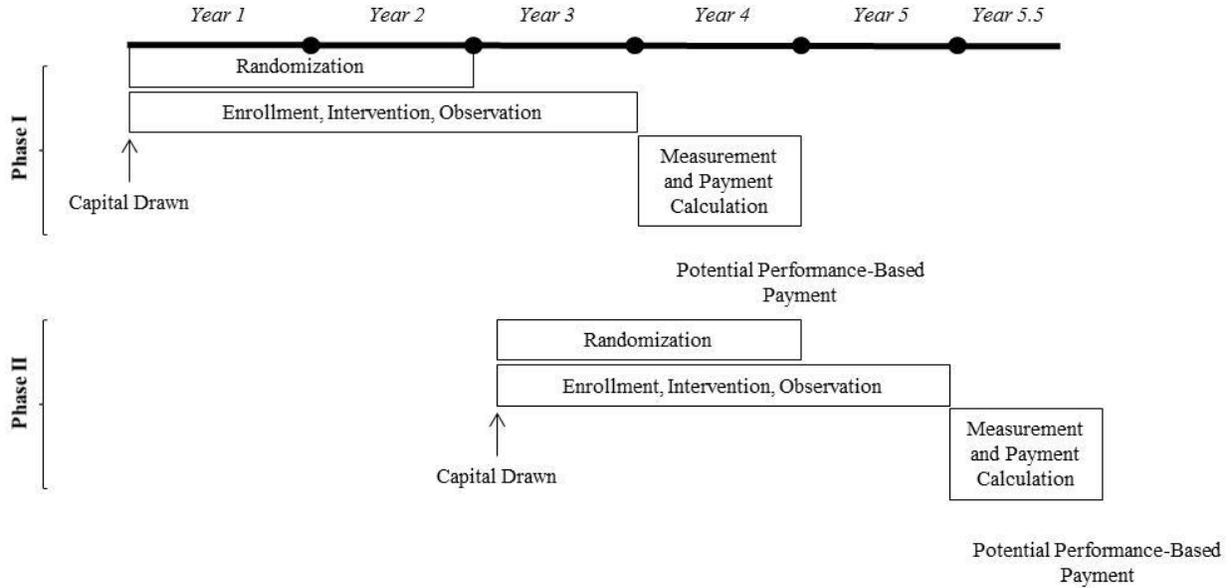
Technical Assistance

[The Harvard Kennedy School Social Impact Bond Technical Assistance Lab](#) (“SIB Lab”) provides pro bono technical assistance to state and local governments implementing PFS contracts using SIBs. The SIB Lab assisted NYS in developing the procurement, structuring the project parameters, and conducting the data analysis for this project.

APPENDIX B. PROJECT TIMELINE

As outlined in the “Roles and Timeline” section, the project will be implemented in two phases over five and a half years. Each phase will serve 1,000 individuals, measure the impact of the intervention on those individuals, and make performance-based payments based on that impact. Figure 2 illustrates the major activities of each of these phases over the life of the project.

Figure 2. NYS PFS/SIB Project Timeline



APPENDIX C. PROJECT ELIGIBILITY CRITERIA

As outlined in the “Randomization and Enrollment” section, NYS DOCCS Research will identify individuals eligible for participation in the project based on pre-determined eligibility criteria. These criteria include:

- Predicted release date from prison is sometime within the next 28 days;
- Supervision Level 1 or 2 according to the COMPAS risk assessment tool;
- Scheduled for release and assigned to:
 - NYC parole bureaus from the Queensboro Correctional Facility;
 - One of the NYC PFS target bureaus designated for this project directly from prison; or
 - Rochester Metro bureau directly from prison;
- Have at least six months of community supervision remaining at the time of release;
- Male;
- Projected age at release equal to or greater than 215 months (17 years and 11 months);
- Not a sex offender, an arsonist, seriously mentally ill, a Shock Release Hearing Type, a Harlem Reentry Court case, or an undocumented and “status unknown” foreign-born individual as defined in the NYS DOCCS system.

APPENDIX D. TECHNICAL EVALUATION DESIGN

Weighting the Data

The weight assigned to each treatment group member will be 1. The weight for each individual in the control group will be:

$$W_{ist} = N_{st}^T / N_{st}^C$$

where N_{st}^T is the number of treatment group members in site s (either NYC or Rochester) in randomization period t (biweekly in NYC and monthly in Rochester) and N_{st}^C is the number of control group members in site s and in randomization period t .

Calculating the ITT Effect

The formula for the ITT estimate is as follows:

$$\text{ITT estimate} = \hat{Y}^T - \hat{Y}^C$$

where:

$$\hat{Y}^T = \frac{\sum_{i=1}^{N_T} Y_i^T W_i^T}{\sum_{i=1}^{N_T} W_i^T} \qquad \hat{Y}^C = \frac{\sum_{j=1}^{N_C} Y_j^C W_j^C}{\sum_{j=1}^{N_C} W_j^C}$$

N_T and N_C are the number of treatment group members and the number of control group members, respectively. Y_i^T is the recidivism or employment outcome for each treatment group member (indexed by i) and Y_j^C is the recidivism or employment outcome for each control group member (indexed by j). W_i^T is the weight for each treatment group member (set to 1) and W_j^C is the weight for each control group member.

Calculating the IV Estimate

The formula for the IV Estimate is as follows:

$$IV_{RCT} = \frac{\text{ITT estimate}}{\hat{p}_T - \hat{p}_C}$$

where:

$$\hat{p}_T = \frac{\sum_{i=1}^{N_T} S_i^T W_i^T}{\sum_{i=1}^{N_T} W_i^T} \qquad \hat{p}_C = \frac{\sum_{j=1}^{N_C} S_j^C W_j^C}{\sum_{j=1}^{N_C} W_j^C}$$

\hat{p}_T equals the weighted fraction of treatment group members who enrolled with CEO. \hat{p}_C equals the weighted fraction of control group members who enrolled with CEO. S_i^T and S_j^C are variables that equal 1 if the individual is enrolled with the CEO and 0 if the individual is not. Both $\sum_{i=1}^{N_T} W_i^T$ and $\sum_{j=1}^{N_C} W_j^C$ equal N^T .

Scaling Factor

Let I_m be the historical cumulative bed day difference measured as of month m . Let N_m be the actual number of treatment group members enrolled with CEO with a maximum observation period of m months. I_{60} is the historical 60-month bed day difference, which is equal to 118.7.

$$\text{Scaling Factor} = I_{60} / \frac{\sum_{m=0}^{36} N_m I_m}{\sum_{m=0}^{36} N_m}$$

The five-year bed day impact that will be used to determine the recidivism-related portion of performance-based payments is calculated as follows:

$$\text{Five-year bed day impact} = IV \text{ estimate of observed bed day impact} \times \text{scaling factor}$$

Table 3. Preset Cumulative Bed Day Impact by Months Observed

Months Observed m	Preset: Cumulative Bed Day Impact
12 months or less	29.68
13	36.381
14	40.101
15	43.726
16	46.973
17	50.072
18	53.067
19	56.07
20	59.005
21	61.865
22	64.648
23	67.337
24	69.92
25	72.377
26	74.709
27	76.907
28	78.924
29	80.824
30	82.634
31	84.403
32	86.111
33	87.764
34	89.378
35	90.941
36	92.452

APPENDIX E. OUTCOME PRICING METHODOLOGY

In order to determine what “price” the State would pay investors per outcome, a rigorous cost-benefit analysis was conducted to assess the cost savings and public sector benefits resulting from each of the three outcome metrics.

Employment

As a result of increased employment, federal, state, and local governments receive additional tax revenue from higher wages and will spend less on public assistance. State and local governments receive sales tax revenue from additional purchases. Based on historical analysis, average annual earnings of formerly incarcerated individuals who find employment are estimated at \$10,000. Research suggests that \$3,000 of the \$10,000 earned per newly employed individual is a reasonable estimate of government benefits over one year from connecting these individuals to employment.²⁹ Assuming that the initial employment impact decays by 50% a year, the long run discounted benefit produces a value of approximately \$6,000 per newly employed person.

$$\sum_{t=0}^{\infty} \$3,000 \times \left(\frac{50\%}{1.02}\right)^t \approx \$6,000$$

For Phase II, the employment price is increased to \$6,360 to account for inflation.

Recidivism

The price per recidivism outcome is equal to the estimated combined public sector benefit from (1) the marginal cost to NYS of a day of incarceration and (2) the cost to victims of crimes associated with those incarcerations. The price per bed day is \$85 for Phase I and \$90.1 for Phase II.

1. **Marginal cost of incarceration:** Based on its work implementing the Pew-MacArthur Results First Initiative cost-benefit model developed by the Pew Center on the States, NYS has developed estimates of the budgetary savings from reducing jail or prison populations. These estimates depend on the scale of the anticipated reduction, since larger reductions in the population can lead to more fixed cost savings. This project uses a savings estimate associated with closing a prison unit of 60 individuals, which is similar in scale to the anticipated reduction in bed days associated with this project over several years. Specifically, NYS is accounting for marginal savings of \$18,706 and \$25,550 from avoiding a year of incarceration in prison and local jail, respectively. The proportion of prison and jail days avoided is estimated at 73% and 27%, respectively, based on analysis of recidivism patterns of high-risk formerly incarcerated individuals released in NYS in 2006. Taking a weighted average of the two, savings to the public sector per avoided bed day for Phase I are estimated to be \$56.

$$(\$18,706 / 365) \times 73\% + (\$25,550 / 365) \times 27\% = \$56$$

²⁹ Congressional Budget Office, “Effective Marginal Tax Rates for Low and Moderate Income Households,” 2012; Dickert, Hauser, Scholz, “Taxes and the Poor: a Study of Implicit and Explicit Taxes,” National Tax Journal, 1994.

For Phase II, the estimated savings per avoided bed day are increased to \$59.4 to account for inflation.

- 2. Reductions in the costs of crime to victims:** Analysis of 4,058 individuals who were released from prison in 2006 found that these individuals were convicted of 1,204 new felonies over the first five years post-release. The victim cost estimation is based on a study by Kathryn McCollister et al. (2010), which uses a cost-of-illness approach to measure tangible costs like medical costs and lost earnings and a jury-compensation approach using the money awarded to victims by juries to estimate the intangible victim costs of crime. Applying the McCollister victim cost estimates to the specific crimes committed in the sample of high-risk formerly incarcerated individuals released in NYS in 2006 produces an average expected victim cost of \$21,400 per formerly incarcerated person.³⁰ Based on analysis of individuals released from prison in 2006, the target population experiences an average of 460 days re-incarcerated in prison or jail per person over five years post-release. To be conservative, approximately 60 percent of the expected victim costs are included in the benefit calculation. Reduced victim costs per bed day are therefore \$29, and the total benefit to the public sector per avoided bed day for Phase I is \$85.

$$(\$21,400 / 460 \text{ days}) / 1.6 = \$29$$
$$\$29 + \$56 = \$85$$

For Phase II, the reduced victim costs and total benefit per avoided bed day are increased to \$30.7 and \$90.1, respectively, to account for inflation.

Transitional Jobs

CEO transitional jobs produce real value for the government in the form of janitorial and maintenance services in government buildings. The estimated per hour cost of similar services delivered to government by contractors is \$20. Based on the MDRC study and CEO performance data, participants work transitional jobs for 6.5 hours per day over 24 days on average, or 156 hours per participant engaged in a CEO transitional job. The price per individual who engages in transitional jobs is therefore \$3,120.

$$\$20 \times 156 \text{ hours} = \$3,120$$

If the average hours worked by a CEO participant that engages in transitional jobs falls below 111 hours, then the transitional jobs portion of the performance-based payment will be based on the actual average hours worked multiplied by \$20 for each participant that engages in transitional jobs. This threshold was established to ensure that the public sector captures the benefits that it projects from transitional jobs while providing CEO the flexibility to tailor service delivery strategies, including transitional jobs, to each individual's readiness for unsubsidized employment.

For Phase II, the payment for each CEO participant who engages in transitional jobs is increased to \$3,307 for the lump sum payment and to \$21.2 for the hourly payment to account for inflation.

³⁰ McCollister, French, Fang, "The Cost of Crime to Society: New Crime-specific Estimates for Policy and Program Evaluation."

At a 92 bed days reduction, a 5 percentage point increase in employment and 700 treatment group members engaged in transitional jobs, the public sector will obtain savings and benefits totaling \$21,226,240, which are detailed in Table 4.

Table 4. Public Sector Savings and Benefits at 92 Avoided Bed Days (20% Reduction), 5 Percentage Point Increase in Employment, 700 Treatment Group Members Engaged in Transitional Jobs

Source of Benefits	Federal	State	Local	Society	Total
Reduced Use of State Prison		\$6,828,900			\$6,828,900
Reduced Use of Local Jail			\$3,922,240		\$3,922,240
Services Provided to Public Sector	\$749,840	\$2,999,360	\$749,840		\$4,499,040
Increased Taxes + Reduced Public Assistance	\$397,580	\$176,130	\$44,290		\$618,000
Reduced Victimization				\$5,358,060	\$5,358,060
Total Savings and Benefits	\$1,147,420	\$10,004,390	\$4,716,370	\$5,358,060	\$21,226,240

APPENDIX F. HYPOTHETICAL PERFORMANCE-BASED PAYMENTS

To provide more detail on how partners will calculate these performance-based payments, Table 5 outlines a hypothetical performance-based payment for Phase I. This level of performance is illustrative and not necessarily indicative of expected performance. The calculation assumes the following social impact:

- 4 percentage point increase in employment rates
- 100 reduction in days re-incarcerated per participant
- 650 participants engaged in transitional jobs with average hours worked greater than 111

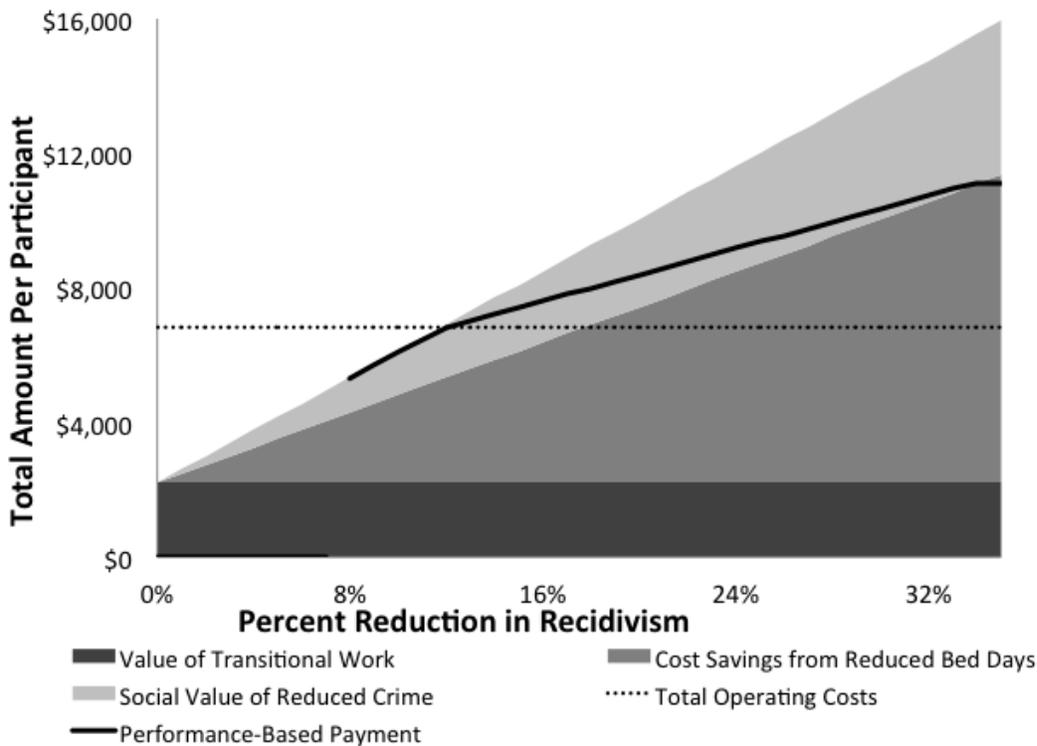
Table 5. Example Phase I Outcome Payment Calculation for Group I, assuming $N_1=1000$

Final Employment Outcome: 4 percentage points	4 percentage points < 5 percentage point threshold	Threshold not met
Final Recidivism Outcome: 100 bed days	100 bed days \geq 36.8 bed day threshold	Threshold met
Final Transitional Job Outcome: 650 participants ³¹	100 bed days \geq 36.8 bed day threshold	Threshold met
Final Employment Outcome: 4 percentage points	N/A	= \$0
Final Recidivism Outcome: 100 bed days	100 bed days * 1,000 * \$85	= \$8,500,000
Final Transitional Job Outcome: 650 participants	650 participants * \$3,120	= \$2,028,000
ESTIMATED PUBLIC SECTOR BENEFITS		= \$10,528,000
100% of public sector benefits from Final Employment Outcome		= \$0
100% of public sector benefits from Final Recidivism and Transitional Job Outcomes up to the value of the Phase I drawdown amount		= \$6,832,000
50% of public sector benefits from Final Recidivism and Transitional Jobs Outcomes thereafter = 50% * (\$8,500,000 + \$2,028,000 - \$6,832,000)		= \$1,848,000
PHASE I OUTCOME PAYMENT, capped at the maximum performance-based payment for Phase I (\$11,095,000)		= \$8,680,000

The performance-based payment, total operating costs, and public sector savings and benefits are illustrated in Figure 3. The figure assumes identical impact in Phase I and Phase II, no impact on employment and 1,400 participants engaged in transitional jobs with average hours worked of at least 111. As shown in the figure, performance-based payments from government never exceed the savings and benefits accruing to the public sector.

³¹ Assumes that average hours worked for participants that engage in transitional jobs is greater than or equal to 111.

Figure 3. Illustrative Public Sector Savings and Benefits and Performance-based Payment at Various Levels of Performance



NYS performance-based payments are tied directly to the public sector savings and benefits estimated to result from the program’s social impact. Table 6 illustrates these estimated public sector savings and benefits and performance-based payments from government at four levels of performance. For simplicity, Table 6 assumes identical outcomes in Phases I and II, a 5 percentage point increase in employment and 1,400 participants engaged in transitional jobs.

Table 6. Illustrative Public Sector Savings and Benefits and Performance-based Payments at Various Levels of Performance

Recidivism Reduction	Public Sector Savings and Benefits	Performance-based Payment Made by Government
46 days (10%)	\$13,172,000	\$13,172,000
92 days (20%)	\$21,226,000	\$17,672,000
138 days (30%)	\$29,281,000	\$21,544,000
184 days (40%)	\$37,335,000	\$21,544,000