Roadmap for
Pay for Success in Philadelphia

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1. Executive Summary

Overview: In late 2014, the City of Philadelphia procured Social Finance to conduct a four-month study to assess the feasibility and potential impact of implementing a Pay for Success (PFS) project to improve outcomes related to: 1) recidivism of returning citizens and 2) system-involved youth placed in out-of-county residential facilities. This report presents Social Finance's findings.

The feasibility study was structured in two phases. During Phase I (January to March), Social Finance identified target populations driving recidivism rates and out-of-county placements, created and analyzed a database of more than 100 national evidence-based programs impacting relevant outcomes, and considered the local capacity to provide services. During Phase II (March to April), Social Finance built off Phase I analysis and the City's guidance to identify four interventions that are highly aligned with PFS. Social Finance then conducted a cost-benefit analysis on each intervention and developed recommendations on PFS readiness. Social Finance conducted more than 50 structured interviews with city and external experts, secondary research and a review of City administrative data.

Recidivism of Returning Citizens: In assessing the opportunity to reduce recidivism via PFS, Social Finance focused on three main levers for reducing recidivism in Philadelphia: workforce reentry, access to affordable housing, and mental health support. Our analysis, as summarized below, finds workforce reentry is the most PFS-ready opportunity to reduce recidivism to the Philadelphia Prison System (PPS). Interventions are listed in the below table in order of PFS readiness:

Executive Summary Table 1. PFS feasibility of interventions to reduce recidivism

Intervention	Description	Outcomes / Benefits	Return on Investment	Operational Considerations and Next Steps	PFS Readiness
Transitional employment for returning citizens	Provides reentering citizens with life skills training, transitional work, placement, and ongoing support. This model has strong support from the City and State and there is an opportunity to expand programs through PFS.	Reduced PPS bed days, reduced state prison bed days, improved public safety, increased employment	For every $1.00 spent, $1.70 in value created Value created includes costs averted and societal benefits generated; for cost savings, 30% accrues to City, 70% accrues to State	– As the State realizes substantial benefits of reduced recidivism, a PFS project would likely require State participation – Availability of transitional and full-time jobs for participants – Ability to share CHRIA-protected criminal justice data to inform PFS project – This project would likely be the quickest PFS project to ramp up and launch	High
Supportive housing for individuals who frequently cycle in and out of jail	Provides stable housing and support services to high-needs, vulnerable populations, diverting participants away from high-cost emergency services. Supportive housing is a clear need for frequent jail users.	Reduced PPS bed days, reduced shelter bed days, reduced emergency room visits, improved public safety, increased employment	Excluding housing voucher and Medicaid reimbursement rates, the model covers 90% of costs in value created Value created includes costs averted and societal benefits generated; for	– Both State and City realize benefits, would likely require State participation; payors would need to include social benefits to attract investment – Involves multiple services, would require significant inter-agency coordination and data sharing (PPS, OSH, CBH, health systems) – OSH has limited capacity to manage program in next 18 months so would need longer	Medium

			cost savings, 43% accrues to City, 26% accrues to State, 30% accrues to Federal	timeline or another agency to manage program – Availability of housing choice vouchers for participants – Ability to share CHRIA-protected criminal justice data – This project would likely require a longer timeline to ramp up and launch	
Cognitive behavioral-based intervention for high and moderate risk offenders	Cognitive behavioral-based intervention targeting criminogenic and deviant behaviors	Reduced PPS bed days, improved public safety, increased employment	For every $1.00 spent, $5.70 in value created Value created includes costs averted and societal benefits generated; for cost savings, 95% accrues to City	– Benefits of reduced recidivism are realized predominantly by City; would not require State participation – Ability to share CHRIA-protected data – Given the low cost of program delivery ($300 per participant) and strong effect size, it is most efficient to invest directly rather than through PFS financing	Low

Out of County Placements for System-Involved Youth: The Department of Human Services (DHS) has taken significant efforts to reduce the use of out-of-county placements for system-involved youth, implementing systemic changes as well as increasing the provision of evidence-based programs in the community. This has yielded a reduction in congregate care placements from 22.6% of DHS-involved youth in 2013 to 14.5% in May 2015. Within this context, Social Finance assessed the feasibility of PFS-financed expansion of Functional Family Therapy (FFT) to further reduce the percentage of out-of-county congregate care placements of system-involved youth:

Executive Summary Table 2. PFS feasibility of interventions to reduce out-of-county placements

Intervention	Description	Outcomes / Benefits	Return on Investment	Operational Considerations and Next Steps	PFS Readiness
Functional Family Therapy	Provides intensive, 3-5 month therapy to at-risk adolescents and their caregivers. PFS could expand the availability of FFT and build on the City's current efforts to provide FFT.	Reduced bed days in out-of-county congregate care, reduced bed days in juvenile detention, improved educational achievement	For every $1.00 spent, $3.80 in value created Value created includes costs averted and societal benefits; for cost savings, 15% accrues to City, 10% accrues to School District, 40% accrues to State, 35% accrues to Federal	– Given DHS' funding flows in which benefits accrue to City and State, project would likely require State participation – FFT currently available to all Medicaid eligible youth but 80% of recipients are delinquent youth; PFS could expand FFT to dependent youth – Grow referral pipeline in coordination with Courts and Community Umbrella Agencies and develop data-driven rationale for applying FFT's juvenile justice-focused evidence to dependents – PFS to fund only non-Medicaid-reimbursable costs of FFT (~$1,500) rather than entire cost of FFT (~$3,900) – Limited DHS capacity to manage PFS project given ongoing systemic changes, would require significant time to prepare	Low

Additional Considerations: Social Finance considered system-wide factors, including legislative requirements, investor landscape and operational risks relevant for PFS. Despite upcoming city-level political transitions, there is potential for PFS to build off numerous city initiatives and momentum in both issue areas. In addition, there is strong commitment to PFS at the State which could improve the attractiveness of PFS for Philadelphia, including a pending Request for Information.

Recommendations: The four potential interventions Social Finance reviewed are at different stages of PFS readiness and are listed below in order of PFS readiness:

1) Workforce reentry through transitional jobs will likely be the fastest project to implement in terms of local service provision and state interest and we recommend that the City pursue PFS through this intervention.

2) A supportive housing intervention would require a longer timeline for PFS project development given the complexity associated with inter-agency collaboration and data sharing and the upcoming mayoral transition. In addition, the City would need to be willing to pay for the social value of supportive housing in order to attract investor capital. This is a strong potential project to consider in 12 to 18 months.

3) Functional Family Therapy would also require a longer timeline for PFS project development given DHS priorities and current capacity and the complexity associated with DHS service delivery. As with supportive housing, this is a strong potential project to consider in the future.

4) A cognitive behavioral-based intervention for high and moderate risk offenders is a worthwhile investment for the City and/or State but given the low cost of program delivery and added complexity of PFS, we recommend this intervention be expanded through direct funding rather than PFS financing.

The City should coordinate next steps with the State PFS process in terms of subsequent procurement efforts and project development, and continue to move forward in answering outstanding questions around City Council interest and data sharing. The feasibility study includes assumptions which will be verified and refined during project development if the City decides to move forward with any of the above interventions.

2. Methodology

Phase I

In Phase I, Social Finance identified the populations and drivers of the criminal justice and child welfare systems contributing to high recidivism rates and out-of-county congregate care placements.

Once these populations and drivers were identified, Social Finance created a database of more than 100 national evidence-based programs impacting relevant outcomes, sourced from evidence-based clearinghouses such as the Washington State Institute for Public Policy, the California Evidence-Based Clearinghouse, the What Works in Reentry Clearinghouse and EPISCenter, expert interviews and portfolios of evidence-based investors, such as the Edna McConnell Clark Foundation. (See Appendices C and D for a summary of interventions included in the database.)

Social Finance assessed the interventions for PFS feasibility according to five criteria: 1) Service provision to the identified *target population*; 2) Services fill an *unmet need* for the target population; 3) Rigorous *evidence base* for treating a directly similar population; 4) Proven impact on *relevant outcomes* (e.g. congregate care reduction and recidivism reduction); and 5) Provision, or potential for provision, by *local service providers* with the capacity to scale operations.

Social Finance ranked three interventions targeting recidivism reduction – workforce reentry through transitional jobs, cognitive behavioral-based intervention for high and moderate risk offenders, and supportive housing for frequent users of emergency systems - and five interventions targeting reducing out-of-home and out-of-county placements – Functional Family Therapy, Multisystemic Therapy, Positive Parenting Program, Trauma-Focused Cognitive Behavioral Therapy, and Multi-Dimensional Treatment Foster Care for Adolescents. (See Appendix E for a summary of these interventions.)

Phase II

Based on inputs from the Department of Human Services (DHS), the Philadelphia Prison System (PPS) and further research, in Phase II, Social Finance pinpointed four of the interventions for further analysis: workforce reentry through transitional jobs, cognitive behavioral-based intervention for high and moderate risk offenders, supportive housing for frequent users of emergency systems and Functional Family Therapy (FFT).[1] Social Finance conducted a Philadelphia-specific cost-benefit analysis for each intervention and further refined assumptions about target population, local service provision, legislative requirements and investor landscape. Reasonable analysis can generate different returns on investment based on underlying assumptions and definition of benefits generated. Our analysis included effect sizes based on rigorous evaluations of interventions and Philadelphia costs from City administrative data. The return on investment analyses included calculations of costs averted and broader social value generated; the social value calculations would likely be refined and negotiated during deal development based on the City's valuation of intervention benefits.

Social Finance's methodology included conducting more than 50 structured interviews with city and external experts, secondary research and initial review of PPS and DHS administrative data.

[1] Multisystemic Therapy is the only intervention assessed in Phase I which has a rigorous evidence base demonstrating reduction in out-of-home placements. However, it was not considered in Phase II based on the City's preferences.

3. Context for Reducing Recidivism at Philadelphia Prison System

Reducing recidivism is a policy priority for the City, directly related to Mayor Nutter's goal of making Philadelphia a safer city. With 8,300 individuals held in PPS, Philadelphia has one of the highest incarceration rates of any large U.S. city.[2] Recidivism rates have decreased in recent years below the national average but are still troublingly high: 57.2% of PPS prisoners return to PPS or prison within three years of release and 40% return within one year.[3,4] Between 2008 and 2013, the PPS population increased mainly due to the increasing pretrial population which now comprises 80% of the PPS population.[5] The population increase is exacerbated by the length of stay; 15% of the pretrial population is held at PPS for 120 days or more.[6]

PPS processes 35,000 annual admissions and releases, equivalent to the daily population turning over more than four times each year. This high rate of turnover directly contributes to the daily inmate cost for PPS. PPS estimates that 63% of the daily cost per inmate (estimated at a daily cost of $20.29) is a one-time cost at intake for diagnostics and clothing.[7] Other cost drivers include providing specialized services for sub-populations of the PPS population, including mental health and substance abuse services.

There are numerous stakeholders in the criminal justice system that are focused on addressing these challenges, including initiatives led by the Mayor's office and by nonprofit organizations. In order to be successful, a PFS project would need to complement existing efforts and expand resources to reduce recidivism to PPS.

3.1. Target Population

PFS funds preventative interventions which target high-need populations with poor outcomes and high social costs. Social Finance identified two populations which demonstrated high risk of recidivism: 1) frequent users of the jail system who require specialized treatment to address substance abuse, mental illness and/or chronic homelessness; and 2) young male adults who live predominantly in challenging neighborhoods in North and West Philadelphia and struggle with high unemployment rates.

Within the 35,000 individuals released from PPS each year and the 50,000 adults on active probation or parole living in Philadelphia, Social Finance identified risk factors and characteristics for the populations with the greatest risk of recidivism.

[2] Shubik-Richards, 2012
[3] City of Philadelphia - Five Year Financial and Strategic Plan for Fiscal Years 2015-2019
[4] Durose et al, 2014
[5] City of Philadelphia - Five Year Financial and Strategic Plan for Fiscal Years 2015-2019.
[6] Shubik-Richards, 2012
[7] Shubik-Richards, 2012

Table 1. Risk factors and population characteristics for population with high risk of recidivating

Demographic characteristic	Percentage of PPS population
Gender[8]	
Male	86%
Female	14%
Race[9]	
African American	66%
Hispanic	16%
Age[10]	
18-29	48%
Special Needs[11]	
Experience mental illness	30%
Alcohol or drug abuse	42%
Homeless at time of release	33%
Pathway to PPS[12]	
Pretrial	75%
Probation/parole violation	15%
Sentenced crimes	10%
Type of crime[13]	
Nonviolent crime	60%
Violent crime	40%
Geography[14]	
North Philadelphia	50%
West Philadelphia	30%

Table 1 illustrates that the average inmate at PPS is male, African American, between the ages of 18 and 29, and is being held pre-trial. The pretrial population has grown as a percentage of the total population in recent years, and much of this increase is driven by individuals charged with misdemeanors.[15] Mental illness, substance abuse, and homelessness are drivers of recidivism to PPS.[16] In terms of geography, the "hot spots" for the PPS population are concentrated in North and West Philadelphia. For example, an area that has been identified as high-need is the 22nd police district, the focus of The Philadelphia Youth Violence Prevention Collaborative. This district has one of the highest rates of shooting victims in the City and one of the lowest rates of labor force participation. Neighboring districts, such as the 24th, 25th and 26th districts are also high-need, as well as parts of West Philadelphia, such as the 19th district.

In addition to these demographics, frequent users are a sub-population which drive significant costs for PPS. The average frequent user is male, suffering from mental illness and/or substance abuse and is a non-violent offender.[17]

Given the characteristics of the population with poor outcomes and high rates of recidivism, Social Finance segmented two distinct populations which would require different services in order to reduce recidivism:

- Frequent users who have been convicted of non-violent crimes, often related to challenges with mental illness, substance abuse or chronic homelessness
- Young adults (aged 18-24), male, at risk of being held pre-trial at PPS for serious offenses, likely in "hot spot" districts in Philadelphia

[8] PPS administrative data
[9] PPS administrative data
[10] Shubik-Richards, 2012
[11] Shubik-Richards, 2012
[12] Shubik-Richards, 2012
[13] Shubik-Richards, 2012
[14] Interview with Commissioner Louis Giorla, December 2014
[15] Shubik-Richards, 2012
[16] Interview with Commissioner Louis Giorla, December 2014
[17] PPS administrative data

3.2. Needs Assessment

Experts consistently identified three areas of service gaps which are directly related to recidivism for the target populations: 1) mental health, 2) supportive housing and 3) workforce reentry.

Mental health: There is a need for general mental health services for the reentry population in Philadelphia. Significant evidence has demonstrated that cognitive behavioral therapy-based interventions are highly effective at reducing recidivism among juvenile and adult offenders.[18] While not focused on the reentry population or criminogenic behaviors, the Department of Behavioral Health and Intellectual Disability Services (DBHIDS) has expanded their capacity to deliver cognitive therapy across the City in recent years as part of the Evidence-based Practice and Innovation Center. In partnership with the University of Pennsylvania, DBHIDS established the Beck Initiative Training Program in Cognitive Therapy and has since trained 340 clinicians in 46 programs.[19] In addition, the Adult Probation and Parole Department (APPD) has developed the capacity to provide a criminogenic intervention for the reentry population based on Cognitive Behavioral Therapy (CBT) principles. Currently, APPD provides the intervention to a small percentage of its highest risk population and are unable to provide it more broadly given funding constraints.

Supportive Housing: Safe, stable housing is a crucial component in reducing recidivism, as it is a prerequisite for implementing many incarceration alternatives. As Byron Cotter of the Defender Association of Philadelphia explains: "We could get a lot more inmates released both pretrial and after sentencing if they had appropriate housing available…The fact is, the city can't implement alternatives to incarceration without supportive housing."[20]

There is insufficient supportive housing in Philadelphia to meet reentry needs. According to the Urban Land Institute, Philadelphia has 37 affordable rentals for every 100 households with extremely low incomes[21] and the supply of supportive housing is even scarcer. PPS estimates that a third of its population, or 2,650 people, are homeless upon release and many require supportive housing due to challenges treating substance abuse or mental health illnesses. While there is a robust network of local providers of supportive housing, there are few with sufficient scale to meet demand.

Workforce reentry: Studies consistently show that unemployment is one of the most influential predictors of whether or not an individual will recidivate, and that individuals with an employment record prior to incarceration are significantly less likely to recidivate.[22] Nationally, 60% of formerly incarcerated individuals are unemployed one year after release.[23] Employment rates for young adults are low across the country – close to 30% of 16 to 24 year olds nationally are under-employed or unemployed – and in the 22nd police district, rates of labor force participation are below national average.[24]

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[18] Landenberger et al, 2005
[19] DBH administrative data
[20] Shubik-Richards, 2012
[21] "Housing Assistance Matters Initiative." *The Urban Land Institute*; extremely low income is defined as less than $24,450 for a household of 4 people.
[22] CEO and MDRC, 2006
[23] CEO and MDRC, 2006
[24] *Philadelphia's Strategic Plan to Prevent Youth Violence,* 2013

In contrast to the significant need, there are limited resources for workforce development particularly for reentry populations. Organizations currently providing resources can serve only a percentage of the need.

3.3. Selection of Interventions for Transaction Assessment

Based on the identification of populations driving recidivism and the needs assessment, Social Finance identified national interventions targeting relevant outcomes. The City and Social Finance selected three interventions for further analysis based on the quality of evidence of the intervention's impact on key outcomes and the presence of local service providers. The transaction assessments for workforce reentry through transitional jobs, supportive housing for frequent users of emergency systems, and cognitive behavioral-based intervention for high and moderate risk offenders are included below.

4. Transaction Assessment: Workforce reentry through transitional jobs

High rates of unemployment and difficulty reintegrating into the workforce are significant challenges for Philadelphia's returning citizens. A PFS project which expands capacity for reentry employment services could complement ongoing initiatives to target Philadelphia communities with high rates of incarceration to reduce recidivism rates to PPS.

Analysis suggests that for every $1.00 spent on transitional job reentry programs, approximately $1.70 in value is generated for government and society. Much of the return on investment (ROI) is driven by a reduction in State prison bed days. Accordingly, Philadelphia will likely need to involve the State in a PFS project expanding workforce reentry for returning citizens. Based on the below analysis, Social Finance concludes that a transitional job reentry program has high potential for a PFS project.

4.1 Intervention

A number of workforce reentry transitional job programs have been implemented nationally. Securing employment for individuals when they are first released from prison can break the cycle of re-incarceration by providing stability, income and workforce readiness skills needed to retain a job. Models provide comprehensive employment program such as life skills training, transitional jobs, job placement services and post-placement support for returning citizens.

The Center for Employment Opportunities (CEO) is a transitional jobs model that has demonstrated significant impact through rigorous evaluation and therefore the below analysis uses assumptions based on the evaluation of CEO. In the CEO model, individuals are referred by parole and probation officers and community-based organizations. Upon referral, participants enroll in a five-day Life Skills Education course and then are assigned a paid, transitional job on a CEO-supervised work crew. While developing workforce readiness skills, participants also meet with a Job Coach once a week to support the job search process. Once participants are hired in a full-time, unsubsidized job, CEO provides job retention services for one year.

4.2 Local Service Provision

Philadelphia has numerous providers of workforce reentry programs, though few are dedicated solely to reentry. For example, Philadelphia Streets Department's Future Track transitional jobs program provides

job-skill training and work experience to 130 of Philadelphia's young adults, the University of Pennsylvania's Agatston Urban Nutrition Initiative Youth Development program funds internships for 60 to 100 high-school students, and the Philadelphia Youth Network helps coordinate other resources. The only dedicated reentry employment services are provided by the Mayor's Office of Reintegration Services (RISE), which targets ex-offenders who are 18 years or older, and E3 Centers, which provide reentry services for youth returning from juvenile placements.[25] CEO is not currently operating in Philadelphia, but they have plans to launch operations in Philadelphia in summer 2015.[26] CEO has experience expanding through PFS financing as the service provider in the New York State Re-Entry Employment Services project.[27]

4.3 Evidence Base

The primary evidence supporting transitional employment as a recidivism intervention is CEO's evaluation. The CEO model was evaluated in New York City via a randomized control trial (RCT) by MDRC for a cohort enrolled in 2004 to 2005 and followed for three years.[28] The study found that the program reduced recidivism by 9% to 12% among all participants over a three-year period and by 16% to 22% among those who enrolled within three months after release from prison.[29] Program participants with four or more prior convictions were 32% more likely to obtain employment and 13% less likely to be re-arrested over a three-year period than their comparison group.[30] In general, CEO's impact was greatest on the population with highest risk of recidivating, lengthier criminal histories, and lower educational attainment.

The evidence base provides inputs for the ROI analysis by informing the range of effect sizes for the target population. In addition to the effect size, the evaluation defines the population on which programs like CEO are most effective, to be targeted in a PFS project.

4.4 Target Population

Transitional job programs are most effective at reducing recidivism for individuals who enroll shortly after release from prison, have high risk of recidivating due to extensive criminal histories, and do not have a high school diploma. In New York City, where CEO was rigorously evaluated, the average participant was male, African American or Hispanic, 34 years old, had completed a high school diploma or GED and had a spotty employment history. On average, participants in the evaluation had seven prior convictions and a total of five years in state prison, and were under parole supervision when referred to CEO.

In Philadelphia, a transitional jobs program could serve a similar population to the New York City population, targeting participants who have recently returned from a state prison facility and have high risk of recidivating. Reducing recidivism rates for this population will reduce incarceration at the county

[25] *Philadelphia's Strategic Plan to Prevent Youth Violence,* 2013

[26] CEO has been in conversations with local stakeholders to secure funding for Philadelphia operations. In addition to identifying funding for expansion into Pennsylvania, CEO has attracted interest from private employers to provide full-time, unsubsidized employment for participants in Philadelphia.

[27] Social Finance is the intermediary for the New York State Re-Entry Employment Services project.

[28] The CEO model evaluated from 2004 to 2008 contains the same key elements as the CEO model currently being implemented in New York, California and Oklahoma and proposed for Pennsylvania.

[29] Redcross, Milenky, Rudd and Levshin, 2012

[30] Redcross, Milenky, Rudd and Levshin, 2012

and state level, as many state prisoners will be held at PPS pre-trial or will be re-convicted for a minor crime and incarcerated at PPS.

A PFS project could expand funding for a workforce reentry transitional jobs program in Philadelphia to the target population.[31]

4.5 Cost Benefit Analysis

A high-level ROI analysis, incorporating the costs of program delivery with the potential benefits and costs averted by the program, finds that for every $1.00 invested in a rigorously evaluated transitional jobs reentry program, approximately $1.70 in value is generated for the government and society. The analysis is based on assumptions outlined in the below tables.

Table 2 compares the baseline costs, or the costs per individual to the system without a transitional job reentry program, with the predicted costs based on the program impact. The majority of costs averted by the program are driven by PPS' cost per bed day to house over-flow inmates out-of-county and the State Corrections' Facility estimated marginal cost per bed day. PPS pays to house more than 500 over-flow inmates at a point in time and, therefore, reducing recidivism would result in reliable cost aversion in a short period of time as over-flow decreases.

In addition to averting costs, Table 2 includes broader value created due to the program's positive impact on employment, public safety and reduction in victimization. Victimization and public safety costs include direct economic losses suffered by victims such as medical costs and property damage, non-prison criminal justice costs to the courts and police department, and additional societal costs such as psychological pain and suffering. Table 2 also reflects additional tax revenue from higher earnings and costs averted through lower public benefit utilization as well as value to government generated through transitional labor and services.[32]

[31] The fixed costs included in the cost-benefit analysis assume that a PFS project would fund one additional transitional work crew each year, or roughly 600 incremental individuals served over a four-year span. This population size is based on CEO's preliminary interviews with local employers regarding the number of available long-term, unsubsidized employment opportunities.

[32] Table 2 includes benefits which may extend beyond the length of the contract which is typical in PFS projects given that interventions are preventative. For example, in the New York State PFS project with CEO, New York agreed to include five years of reduced bed days and ten years of increased employment earnings for participants. The number of years of benefits included in the pricing or valuation of each outcome is something that is negotiated during deal development.

Table 2. High-Level Net Cost or Value Per Outcome

	Daily Marginal Cost	Baseline Bed Days	Baseline Cost or Value Per Person	Predicted Bed Days	Predicted Cost or Value Per Person	Net Cost or Value Per Outcome
	[A]	[B]	[A x B]	[C]	[A x C]	[A x B] – [A x C]
Cost Measures						
Bed Days in PPS (over 5 years)	$59[33]	167 days[34]	$9,900	141 days[35]	$8,300	$1,600
Bed Days in State Corrections (over 5 years)	$51[36]	437 days	$22,400	366 days[37]	$18,800	$3,600
Value Measures						
Victimization & Public Safety Costs Per Incident (e.g. direct economic loss to victims, criminal justice costs)	$39[38]	546 days[39]	$21,400	458 days[40]	$17,900	$3,500
Increased Taxes & Reduced Public Assistance	N/A	N/A	$2,000[41]	N/A	$2,400[42]	$400
Value of Transitional Labor Per Person	N/A	N/A	$75[43]	N/A	$1,500[44]	$1,400

[33] PPS daily marginal cost is based on the cost to PPS for out-of-facility contracted bed days. PPS facilities are consistently above capacity and to manage overflow population, PPS spends an average of $58.95 per bed day for 566 out-of-facility contracted beds. The analysis assumes that reduction in the PPS population would reduce out-of-facility contracted bed days.

[34] PPS and Department of Corrections (DOC) administrative data indicate that inmates' average length of stay over a five-year span is 546 days at PPS and 630 days at DOC facilities. Given that program participants would be sourced from both PPS and state prison facilities, we calculated a weighted average of bed days for an average program participant of 604 days (167 + 437). This was based on PPS administrative data and Greenlight Fund assumptions which indicated that 10% of participants would come from PPS facilities, 90% would come from state facilities, and that within the state facility population, 23% of bed days would in fact be spent at PPS pretrial.

[35] CEO's evaluation indicated a program effect of 24.3% reduction in bed days; to be conservative, we discounted the effect size by one third in this analysis.

[36] Based on the New York State PFS project pricing as the only existing transitional employment PFS contract to date.

[37] CEO's evaluation indicated a program effect of 24.3% reduction in bed days; to be conservative, we discounted the effect size by one third in this analysis.

[38] Based on the cost-of-illness methodology used by Kathryn McCollister et al. (2010) to measure direct economic and intangible losses to victims per incident. The authors estimate the average cost per type of incident, including costs related to direct economic losses suffered by crime victims (e.g. medical costs, property damage), non-prison-related criminal justice system costs (e.g. police, courts), crime career costs (e.g. opportunity costs associated with the criminal's choice to engage in illegal rather than legal activities) and intangible costs (e.g. pain, suffering, estimated using jury award amounts). To calculate an average cost per incident, we weighted the per incident cost by the likelihood of incident types in New York City given that we did not have the breakdown of crime types in Philadelphia. The weighted average cost per incident is $21,400. The daily marginal cost was calculated by dividing the average cost per incident by the total PPS bed days; this analysis assumes that inmates from Philadelphia conduct crimes in Philadelphia and therefore the daily cost was calculated for total PPS bed days.

[39] Cumulative bed days over 5 years, PPS administrative data.

[40] CEO's evaluation indicated a program effect of 24.3% reduction in bed days; to be conservative, we discounted the effect size by one third in this analysis.

[41] Net present value of 30% of average earnings for former PPS inmate over 10 years, to estimate public sector benefits from increased tax revenues and reduced public assistance. Based on Economy League Greater Philadelphia (2011) estimate of annual earnings of former PPS inmate, without high school diploma, adjusted to 2015 dollars ($8,878).

[42] CEO's evaluation indicated a program effect of 26.7% increase in employment; to be conservative, we discounted the effect size by one third and assumed the program effect decays at a rate of 50% per year.

[43] Estimated value to government of services delivered through transitional labor. According to Redcross et al. (2012) without CEO, 2.4% of target population would participate in jobs similar to CEO transitional jobs.

[44] Estimated value to government of services delivered through transitional labor. Redcross et al. (2012) estimates that 74% of CEO participants work 6.5 hours per day for 24 days; we discounted the effect size by one third in this analysis. The NYS PFS project valued transitional labor at $20 per hour.

Estimated Program Delivery Costs: CEO has an estimated program delivery cost of $6,200 per participant.[45]

Return on Investment: Our analysis indicates that an investment in CEO or a similar program would yield a positive return on investment.

Table 3. Return on Investment Per Program Participant

Cost or Value Measure	Net Cost or Value
CEO Program Delivery Costs	**$(6,200)**
Criminal Justice Cost Aversion	**$5,200**
Reduced Use of PPS	$1,600
Reduced Use of State Corrections Facilities	$3,600
Value Creation	**$5,300**
Reduced Victimization & Public Safety Costs	$3,500
Increased Taxes & Reduced Public Assistance	$400
Value of Transitional Labor	$1,400
Net Cost Aversion / Value Creation (per person)	**$4,300**
Preliminary Return on Investment (ROI)	**170%**
Preliminary Return on Investment (ROI) excluding Federal and State benefits	**105%**

4.6 Accrual of Benefits and Potential Payors

A transitional job reentry program generates significant benefits in terms of increased employment, reductions in recidivism and increased public safety. Potential payors are those who benefit directly from costs averted due to program outcomes or who have indicated that they value these outcomes.

Table 4. Accrual of Benefits

Source of Benefits	Federal	State	Local	Total
Reduced Use of PPS	$0	$0	$1,600	$1,600
Reduced Use of State Corrections Facilities	$0	$3,600	$0	$3,600
Cost Aversion Sub-Total	**$0**	**$3,600**	**$1,600**	**$5,200**
Reduced Victimization & Public Safety Costs	$0	$0	$3,500	$3,500
Increased Taxes & Reduced Public Assistance[46]	$250	$75	$75	$400
Value of Transitional Labor[47]	$0	$0	$1,400	$1,400
Value Creation Sub-Total	**$250**	**$75**	**$4,975**	**$5,300**
Total	**$250**	**$3,675**	**$6,575**	**$10,500**

4.7 PFS Recommendation

There is potential for PFS to fund expansion for evidence-based transitional job reentry programs in Philadelphia. There is significant value created – for every $1.00 invested, approximately $1.70 is generated. Given that much of this value accrues to the State due to reduction in bed days at state correctional facilities, a PFS project would rely on State participation. Initial conversations indicate strong support from the City and State for transitional job reentry programming and for PFS.

[45] Greenlight Fund preliminary estimate.
[46] 2012 Congressional Budget Office reports estimate that two thirds of taxes and benefits for low- and moderate-income workers accrue to the federal government.
[47] This analysis assumes that transitional jobs are provided by city agencies only, based on conversations with Greenlight Fund describing CEO's planning.

5. Transaction Assessment: Supportive housing for frequent jail users

Individuals who cycle through the jail system and other City emergency systems are a significant cost driver for PPS. There is a demonstrated cyclical connection between incarceration and homelessness: homelessness increases the risk for incarceration and incarceration increases the risk for homelessness. This link is further exacerbated by serious mental illness and substance abuse. This population is often expensive to serve while incarcerated due to significant health needs.

A PFS project could expand the capacity to provide supportive housing for individuals who frequently cycle in and out of jail, helping break the costly cycle of reliance on shelters, jails and emergency rooms. The ROI analysis for a supportive housing program indicates that the program could cover approximately 90% of the program costs, excluding the cost of the housing voucher. This analysis assumes the program bears the cost of supportive services without taking into account Medicaid reimbursements; once Medicaid reimbursements are incorporated, the ROI will likely improve. The value from this intervention accrues across City, State and Federal government and therefore a PFS project would likely require State participation. In order to attract investor capital, the government payors would need to include payments for social benefits. A PFS project to expand supportive housing would require significant inter-agency coordination among city agencies, likely extending the timeline for developing a PFS project.

5.1 Intervention

Supportive housing for frequent users of emergency systems help "break the cycle of incarceration and homelessness among individuals with complex behavioral health challenges who are the highest users of jails, homeless shelters and other crisis service systems".[48] Models generally target the highest users of jails and shelters who also suffer from substance abuse or serious mental illnesses. While there are numerous supportive housing models, key elements include the provision of affordable, safe housing which expects the participant to contribute no more than 30% of their income on housing costs, and linkages to wraparound services targeting mental illness, substance abuse, physical health and employment readiness.

The Frequent Users of Systems Engagement (FUSE) model, developed by the Corporation for Supportive Housing (CSH), is a supportive housing intervention targeting the reentry population that has demonstrated significant impact through rigorous evaluation and therefore the below analysis uses assumptions based on the evaluation of FUSE.[49] The FUSE model uses a three pronged approach – data-driven problem-solving, policy and systems reform, and targeted housing and services – to match administrative data across agencies to identify the highest users of jails, design supportive housing, and evaluate the impact of the program. Collaboration between city agencies is crucial for successful implementation, data sharing, integrated implementation, and resource alignment.

5.2 Local Service Provision

Philadelphia has a robust network of supportive housing providers that serves many of Philadelphia's highest-risk populations. Gaudenzia, for example, targets chronically homeless adults with significant

[48] Aidala et al, 2014

[49] The Philadelphia Redevelopment Authority is exploring other models to use PFS to expand supportive housing, including braiding funding with Low Income Housing Tax Credits; these models are not included in this feasibility study.

behavioral health needs and provides blended case management to connect participants to affordable housing units as well as to provide support services as they transition from an institutional setting. Project HOME has ten residences where it provides affordable housing and supportive services to chronically homeless adults.

While FUSE is not currently in Philadelphia, CSH has replicated FUSE in more than 20 locations across the country by training local supportive housing providers. CSH identifies local providers who have demonstrated a strong commitment to serving the FUSE target population. In Philadelphia, FUSE could leverage the supportive housing provider network in Philadelphia which has demonstrated capacity and commitment to provide similar models.

Given the requirement for collaboration, data sharing and resource alignment, supportive housing interventions targeting the frequent user population can take up to a year to roll out, and the timeline depends heavily on political and bureaucratic willpower to implement the model with fidelity. A new supportive housing intervention would require significant city capacity to implement and manage; the Office of Supportive Housing (OSH) has infrastructure in place to manage similar housing programs but may require additional investment in capacity in order to incorporate a new program. In addition, OSH is currently at capacity and does not anticipate being able to manage another program, such as FUSE, in less than 18 months.[50] Collaboration across government agencies is a significant consideration for a PFS project which could span two mayoral administrations.

5.3 Evidence Base

Supportive housing interventions have demonstrated positive impact on individuals and communities in multiple evaluations over decades of research. Benefits include improving housing stability, employment, mental and physical health, and school attendance, and reducing substance abuse, as well as improving public safety and stabilizing property values.[51] In addition, studies have found that supportive housing is a cost-effective method for decreasing the use of homeless shelters, hospitals, emergency rooms and jails.

FUSE has been evaluated in New York City through a rigorous quasi-experimental evaluation by Columbia University. The evaluation used propensity score matching to compare 60 FUSE participants with 70 matched comparison group members for two years after placement in supportive housing. All participants met the eligibility criteria of four jail and four shelter stays over the five years prior to admission as well as additional eligibility criteria by service providers, including substance abuse and serious psychiatric diagnoses. The evaluation found the following effect sizes over the 24 month follow up period[52]:

- 46% reduction in days incarcerated
- 91% reduction in days in emergency shelters
- 45% reduction in average number of ambulance rides
- 55% reduction in average psychiatric hospital days
- 100% reduction in average alcohol and other drug (AOD) residential treatment days

[50] Interview with Deputy Mayor Susan Kretsge, 2015
[51] Corporation for Supportive Housing, 2014
[52] Aidala et al, 2014

The FUSE evidence base demonstrates significant, positive impact, but studies a relatively small population using a quasi-experimental methodology, rather than a randomized control trial. Therefore, a PFS project would likely need to incorporate evidence from evaluations of analogous supportive housing models. There are existing PFS projects and additional projects in development that plan to provide supportive housing to chronically homeless populations which can support the FUSE evidence base. In combination, these are likely adequate to support a PFS project but it may require a higher return for commercial investors or a focus on philanthropic investors.

5.4 Target Population

The target population will likely be between 300 and 700 people, based on the population size identified by FUSE in other cities of similar size. These individuals will have had at least four stays in jails and homeless shelters over the last five years and have significant needs for services to treat mental health and/or substance abuse. The specific targeting of these individuals would occur during the ramp up period. Population sizing would be based on matching OSH and PPS data in order to identify frequent users of both systems. The estimated population sizing seems realistic given that PPS has had more than 11,000 inmates with four or more encounters over the last five years[53] and OSH estimates a population of 1,000 singles in emergency shelters at any point in time.

5.5 Cost-Benefit Analysis

A high-level return on investment analysis, incorporating the costs of program delivery with the potential benefits and costs averted by the program outcomes, finds that a supportive housing intervention could cover 90% of the program costs with the benefits it generates. This analysis excludes the cost of housing vouchers and Medicaid reimbursement rates; once Medicaid reimbursements are incorporated, the ROI will likely improve. The analysis is based on assumptions as outlined in the below tables.

Table 5 outlines annual costs averted based on FUSE's demonstrated impact on three cost categories: bed days in jail, bed days in homeless shelters and utilization of crisis care services such as ambulance rides, psychiatric hospitals and alcohol and drug treatment facilities. Table 5 also estimates the value generated through increased employment among supportive housing residents. This is based on estimated increased tax revenue from higher earnings and lower utilization of public benefits.

[53] PPS administrative data

Table 5. Baseline vs. Predicted Cost per Frequent User

	Daily Marginal Cost	Baseline Bed Days	Baseline Cost	Predicted Bed Days	Predicted Cost	Net Cost Averted Per Outcome
	[A]	[B]	[A x B]	[C]	[A x C]	[A x B] – [A x C]
Cost Measures						
Bed Days in Incarceration	$59[54]	123 days[55]	$8,400[56]	90 days[57]	$6,400	$2,000
Bed Days in Homeless Shelters	$40[58]	86 days[59]	$3,400	34 days[60]	$1,400	$2,000
Ambulance Fees / ED Stays	$1,688[61]	N/A (0.76 rides)[62]	$1,300	N/A (0.49 rides) [63]	$800	$500
Psychiatric Hospital Stays	$2,215[64]	5.04 days[65]	$11,200	2.97 days[66]	$6,600	$4,600
AOD Residential Treatment Stays	$97[67]	6.16 days[68]	$600	2.05 days[69]	$200	$400
Value Measures						
Increased Taxes & Reduced Public Assistance	N/A	N/A	N/A	N/A	N/A	$700[70]

Estimated Program Delivery Costs: The annual average cost of FUSE ranges from $11,000 to $25,000 per person across all sites.[71] Table 6 outlines an estimated per person cost of delivery in Philadelphia based on the likely cost of program training and development, affordable housing vouchers and service provision.

[54] Weighted average of out-of-facility bed day costs based on PPS administrative data. See footnote 32 for additional detail on assumptions.
[55] PPS administrative data estimate for annualized, average length of stay for PPS inmate population with seven or more PPS encounters over past five years.
[56] Includes Economy League Greater Philadelphia (2011) report estimates of non-prison-related costs of $1,100.
[57] FUSE's evaluation indicated a program effect of 46% reduction on bed days; the analysis discounts effect size by one third.
[58] Interview with Deputy Mayor Susan Kretsge
[59] OSH administrative data estimate for annualized, average length of stay at homeless shelter in city and non-city funded single shelters, assuming seven or more homeless shelter stays over the past five years. The eligibility requirement of number of shelter stays will be negotiated during project development; Social Finance used seven stays as an estimate for the analysis.
[60] FUSE's evaluation indicated a program effect of 91% reduction on days in homeless shelter; the analysis discounts effect size by one third.
[61] Estimated $1,040 ambulance fee by 2012 Philadelphia Office of the Controller Analysis of Ambulance Fees plus estimated $648 cost of emergency department stay by Aidala et al (2014).
[62] Estimated number of ambulance rides by Aidala et al (2014).
[63] Aidala et al (2014) indicated a program effect of 45% reduction on ambulance rides; the analysis discounts effect size by one third.
[64] Estimated cost of psychiatric hospital stays by Aidala et al (2014).
[65] Estimated number of days in psychiatric hospital by Aidala et al (2014).
[66] Aidala et al (2014) indicated a program effect size of 55% reduction in psychiatric hospital stays; the analysis discounts effect size by one third.
[67] Estimated cost of alcohol and other drug residential treatment stays by Aidala et al (2014).
[68] Estimated number of bed days in alcohol and other drug residential treatment by Aidala et al (2014).
[69] Aidala et al (2014) indicated program effect size of 100% reduction in alcohol, drug residential treatment stays; the analysis discounts effect size by one third.
[70] Estimated five-year value of employment services to supportive housing residents due to increased tax revenues from higher earnings and lower public benefit utilization by Long et al (2013).
[71] Aidala et al, 2014

Table 6. Estimated Program Delivery Costs Per Person

Cost Measure	Cost
Variable Costs	
Affordable Housing Voucher Per Participant (incl. administrative costs)	$9,500[72]
Program Fee Per Participant (Services + Operations)	$11,200[73]
Fixed Costs	
Program Development Costs	$700
Average Program Delivery Cost per Person (with housing voucher cost)	**$21,400**
Average Program Delivery Cost per Person (without housing voucher cost)	**$11,900**
Average Program Delivery Cost per Person (without housing voucher cost, including positive leaver benefits)[74]	**$10,100**

Return on Investment: Based on the assumptions in Tables 5 and 6, Table 7 calculates a directional, annualized return on investment per FUSE participant for three scenarios: 1) including the cost of the housing voucher, 2) excluding the cost of the housing voucher, and 3) excluding the cost of the housing voucher and including the value of benefits over five years for participants who graduate from supportive housing but continue to use emergency services at a reduced rate (also known as "positive leavers").[75]

Table 7. Return on Investment Per Program Participant

Per Person Cost	Net Cost or Value (with housing voucher cost)	Net Cost or Value (without housing voucher cost)	Net Cost or Value including positive leaver benefits (without housing voucher cost)[76]
FUSE Program Delivery Costs	**$(21,400)**	**$(11,900)**	**$(10,100)**
Criminal Justice Cost Aversion	**$2,000**	**$2,000**	**$1,700**
Reduced Use of PPS	$2,000	$2,000	$1,700
Homeless Shelter Cost Aversion	**$2,000**	**$2,000**	**$1,800**
Reduced Use of OSH	$2,000	$2,000	$1,800
Crisis Care Service Cost Aversion	**$5,500**	**$5,500**	**$4,800**
Reduced Ambulance / ED Stays	$500	$500	$400
Reduced Psychiatric Hospital Stays	$4,600	$4,600	$4,000
Reduced AOD Treatment	$400	$400	$400
Value Creation	**$700**	**$700**	**$600**
Increased Taxes + Reduced Public Assistance	$700	$700	$600
Net Cost Aversion / Value Creation	**$(11,200)**	**$(1,700)**	**$(1,200)**
Preliminary Return on Investment (ROI)	**50%**	**85%**	**90%**
Preliminary Return on Investment (ROI) excluding Federal and State benefits	**20%**	**35%**	**35%**

[72] OSH administrative data; assumes that resident contributes $200 monthly in rent.
[73] Aidala et al, 2014
[74] Wong et al (2006) study on chronically homeless with serious mental illnesses in Philadelphia found that 25% of supportive housing participants leave after one year. One third of these are "positive leavers" who graduate from supportive housing into living arrangements that are not associated with professional residential support, and two-thirds are designated as "non-positive leavers" who leave supportive housing to go to congregate residential settings, institutional settings or homelessness.
[75] See footnote 73
[76] See footnote 73

5.6 Accrual of Benefits and Potential Payors

FUSE creates substantial benefits through reduction in criminal justice, emergency housing and medical costs and increases in employment and earnings. Emergency housing and criminal justice costs accrue primarily to the City, while medical cost aversion is realized at both the State and Federal levels. Tax revenues and lower utilization of public benefits accrue across all levels of government.

Table 8. Accrual of Benefits

Source of Benefits	Federal	State	Local	Total
Reduced Use of PPS	$0	$0	$1,700	$1,700
Reduced Use of OSH	$0	$0	$1,800	$1,800
Reduced Ambulance / ED Stays	$200	$200	$0	$400
Reduced Psychiatric Hospital Stays	$2,100	$1,900	$0	$4,000
Reduced AOD Treatment	$200	$200	$0	$400
Cost Aversion Per Person	**$2,500**	**$2,300**	**$3,500**	**$8,300**
Increased Taxes + Reduced Public Assistance	$400	$100	$100	$600
Value Creation Per Person	**$400**	**$100**	**$100**	**$600**
Total	**$2,900**	**$2,400**	**$3,600**	**$8,900**

5.7 PFS Recommendation

A PFS-financed project to expand capacity for supportive housing for frequent users of PPS would require a lengthy timeline to develop. The concept has momentum within City agencies but its implementation would require the commitment and coordination of numerous city agencies, including PPS, OSH and DBH. The return on investment finds that a supportive housing intervention can cover 90% of its costs excluding the cost of the housing voucher, though this return may be significantly more positive once Medicaid reimbursement is incorporated into the program costs. The value generated accrues to the City and State government, likely requiring State participation in a PFS project. In addition, while the evidence for supportive housing is well-established, the evidence for FUSE specifically is less robust.

6. Transaction Assessment: Cognitive behavioral-based intervention for high and moderate risk offenders

Community corrections play an increasingly important role in reducing recidivism as the population under community supervision has grown nationally. This national trend is notable in Philadelphia where APPD[77] oversees 36,245 active offenders on probation and parole, with 10,000 more in absconder status,[78] and an estimated 40,000 people returning to Philadelphia each year from incarceration. CBT-based interventions are some of the most successful and widely studied treatment programs offered in

[77] APPD is part of the Philadelphia Courts System, First Judicial District of Pennsylvania and is not part of the City of Philadelphia.
[78] APPD administrative data

community corrections to target thought processes which drive criminal behavior.[79] A PFS project could expand APPD and PPS's existing efforts to provide cognitive behavioral-based interventions.

The return on investment analysis of cognitive behavioral-based intervention for high and moderate risk offenders is highly positive; it implies that for every $1.00 spent, there is approximately $5.70 in value generated. Given the positive cost-benefit and the low cost of program delivery, it would be most efficient for the City and/or State to invest directly in the program, rather than to fund it through a PFS project. The added complexity of PFS is only warranted when a significant amount of funding is required, typically $5 million or more.

6.1 Intervention

There are numerous CBT-based interventions targeting criminal behavior. *Choosing to Think and Thinking to Choose* is an intervention developed by the University of Pennsylvania for APPD to target the needs of offenders on probation or parole in Philadelphia. It is based on the principles of CBT and aims to modify how participants respond to external stimuli and reduce cognitive distortions which can contribute to criminal behavior.[80] The below analysis uses assumptions based on the rigorous evaluation of this model which is currently being implemented with the target population in Philadelphia.

APPD currently selects high-risk individuals to participate in *Choosing to Think and Thinking to Choose.* Participants are identified as high-risk using APPD's risk prediction tool, which was developed by the University of Pennsylvania and has been in use since 2009.[81] Once selected, participants attend weekly group lessons of 15 people for two hours. Each session is led by probation officers trained specifically in the cognitive behavioral-based intervention. *Choosing to Think and Thinking to Choose* has 14 distinct lessons which focus on particular aspects of behavior or cognition that are theoretically related to criminal behaviors, such as anger management, coping with stressful situations, management of criminal justice and community correctional interactions and management of interpersonal and professional relationships.[82] Participation is mandatory for individuals selected for the program, and refusal to attend classes is the practical equivalent of violating conditions of supervision.

6.2 Local Service Provision

CBT-based interventions targeting criminal behavior are offered by multiple providers in Philadelphia within PPS and in the community. PPS offers *Thinking for a Change*, a widely used CBT-based intervention targeting behaviors related to criminality and deviance. As of December 2014, PPS provided *Thinking for a Change* to 1,582 inmates.[83] PPS is open to expanding services to include *Choosing to Think and Thinking to Choose* and through has demonstrated its capacity to provide cognitive behavioral-based interventions through its current service provision.

APPD provides *Choosing to Think and Thinking to Choose* to 300 high-risk individuals annually with two trained probation officers.[84] APPD has been in conversation with the Aaron T. Beck Psychopathology Research Center and the Department of Criminology at the University of Pennsylvania to expand the

[79] Hyatt, 2013
[80] Hyatt, 2013
[81] Barnes et al, 2012
[82] Hyatt, 2013
[83] PPS administrative data
[84] Interview with Charles Hoyt and Ellen Kurtz

program through an electronic delivery method, which would allow for inexpensive ramp up and consistent delivery to a mobile population. While computer-based delivery has been evaluated for other CBT-based interventions, it has not been evaluated for criminogenic CBT-based interventions or in the Philadelphia context.

6.3 Evidence Base

There are more than 30 years of evaluations of CBT-based interventions targeting criminal behavior. Evaluations of similar interventions – programs which were practitioner-led, delivered in a community correctional setting for high-risk offenders identified with an actuarial forecasting tool – have varied in magnitude and statistical significance but provide directional evidence of effect sizes. [85] Participants in the treatment groups reoffended between 18% and 25% less than members of the control group.[86]

In 2013, the University of Pennsylvania conducted a randomized evaluation of APPD's implementation of *Choosing to Think and Thinking to Choose* and found that participants were significantly less likely to commit a non-violent offense than the control group. The treatment reduced the prevalence of non-violent offending by 18.8%.[87]

In addition, significant evidence supports offering CBT-based interventions at PPS. Evidence demonstrates that CBT is effective at reducing recidivism whether offered in a correctional institution or after release and dosage is generally less than 20 weeks.[88] This evidence supports offering *Choosing to Think and Thinking to Choose* as a continuum to offenders while incarcerated at PPS and upon release.

The context-specific and population-specific randomized evaluation of the program provides a strong evidence base for a PFS project. This evaluation and evidence is also supported by an extensive field of evaluations of similar CBT-based interventions targeting criminogenic behavior. However, this evidence applies to the program as it was offered in the evaluation and would not provide the same level of evidence if the program was offered differently, such as through a computerized delivery method.

6.4 Target Population

The evaluation of *Choosing to Think and Thinking to Choose* found that the program has the greatest impact on high-risk offenders. APPD's risk prediction tool identifies 18.3% of their population as high-risk offenders (approximately 6,500 individuals). With sufficient funding and space, APPD could expand program delivery to the entire population of high-risk offenders as well as to moderate-risk offenders.

6.5 Cost-Benefit Analysis

A high-level return on investment analysis, incorporating the costs of program delivery with the potential benefits and costs averted by the program outcomes, finds that *Choosing to Think and Thinking to Choose* has a significantly positive return. The analysis is based on assumptions as outlined in the below tables.

[85] The majority of these studies evaluated two programs: Moral Reconation Therapy and Reasoning and Rehabilitation.
[86] Hyatt, 2013
[87] Hyatt, 2013
[88] Landenberger and Lipsey, 2005

Table 9 outlines the costs averted from *Choosing to Think and Thinking to Choose's* estimated impact on criminal justice and public safety. Criminal justice costs include the cost of bed days at PPS and state facilities. The table also includes estimates for value generated through improved public safety and increased employment. Public safety costs include direct economic losses such as medical costs as well as intangible costs such as psychological pain and quality of life. Value of additional tax revenues and lower social service utilization is also included.

Table 9. High-Level Net Cost or Value Per Outcome

	Daily Marginal Cost	Average Bed Days	Cost or Value Per Person	Baseline Re-Arrest Rate	Baseline Cost	Predicted Re-Arrest Rate	Predicted Cost	Net Cost or Value Per Outcome
	[A]	[B]	[A x B]	[C]	[A x B x C]	[D]	[A x B x D]	[A x B x C] – [A x B x D]
Cost Measures								
Bed Days in PPS	$59[89]	154[90]	$9,100	44%[91]	$4,000	38%[92]	$3,500	$500
Value Measures								
Victimization & Public Safety Costs Per Incident (e.g. direct economic loss, criminal justice costs)	$139	154	$21,400	44%	$9,400	38%	$8,200	$1,200
Increased Taxes & Reduced Public Assistance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$20[93]

Table 10 estimates the cost of delivering *Choosing to Think and Thinking to Choose.* The calculation includes personnel and training costs as well as indirect expenses such as office space, program overhead and fidelity monitoring costs.

Table 10. Estimated Program Delivery Costs Per Person

Cost Measure	Cost
Variable Costs	
Opportunity Cost Per Probation Officer	$90[94]
Fixed Costs	
Additional Training / Staffing Cost per Person (e.g. Program Coordinator, Recruiter, Probation Officers)	$170[95]

[89] Weighted average of out-of-facility bed day costs based on PPS administrative data. See footnote 32 for additional detail on assumptions.

[90] PPS administrative data indicates that convicted prisoners' average length of stay is 212 days. Shubik-Richards (2012) estimates that the PPS average length of stay for inmates charged but not convicted is 40 days. APPD risk tool indicates that the high-risk APPD population has 1.14 encounters with prisons or jails over a 24-month follow-up. Analysis assumes 20% of re-offenders are arrested but not charged, 20% of re-offenders are charged but not convicted and 60% are charged and convicted.

[91] APPD risk tool indicates 44% re-arrest rate for high-risk offenders over 24-month follow-up.

[92] Hyatt (2013) demonstrated an 18.8% reduction in re-arrest rate. To be conservative, we discounted this effect size by 33%.

[93] Economy League Greater Philadelphia (2011) report estimates a 40% employment rate among former PPS inmates and average annual earnings of $8,878, adjusted to 2015 dollars. $20 estimate calculated by multiplying average annual earnings by employment rate by expected proportion of year incarcerated per average participant by 30% to estimate public sector benefits from increased tax revenues and reduced social service expenditures.

[94] APPD probation officers administering the cognitive behavioral-based program receive $80,000 in salary plus benefits. Estimate assumes each probation officer serves 900 participants annually.

[95] Assumes 3,000 participants served annually with the addition of one program coordinator ($80,000), one program recruiter ($80,000), one part-time Beck Institute CBT expert ($40,000) and 4 additional probation officers ($320,000), plus $1,200 cost of CBT certification training course offered at Beck Institute per probation officer.

Expansion Costs per Person (e.g. Office Space, Equipment, Furnishings)	$20[96]
Indirect Costs per Person (e.g. office space, fidelity monitoring requirements, overhead)	$20
Average Program Delivery Costs per Person	**$300**

Given the low cost of program delivery and the reduction in criminal justice costs and gains in employment, our model estimates a highly positive return on investment.

Table 11. Return on Investment Per Program Participant

Per Person Cost	Net Cost or Value
Cognitive Behavioral-based Program Delivery Costs	**$(300)**
Criminal Justice Cost Aversion	**$500**
Reduced Use of PPS	$500
Value Creation	**$1,220**
Reduced Victimization & Public Safety Costs	$1,200
Increased Taxes & Reduced Public Assistance	$20
Net Cost Aversion / Value Creation (per person)	**$1,420**
Preliminary Return on Investment (ROI)	**570%**
Preliminary Return on Investment (ROI) excluding Federal and State benefits	**570%**

6.6 Accrual of Benefits and Potential Payors

Table 12 outlines the estimated accrual of program benefits across the federal, local and state government. Benefits from the *Choosing to Think and Thinking to Choose* model accrue predominately to the City.

Table 12. Accrual of Benefits

Source of Benefits	Federal	State	Local	Total
Reduced Use of PPS	$0	$0	$500	$500
Cost Aversion Sub-Total	**$0**	**$0**	**$500**	**$500**
Reduced Victimization and Public Safety Costs	$0	$0	$1,200	$1,200
Increased Taxes & Reduced Public Assistance	$10	$5	$5	$20
Value Creation Sub-Total	**$10**	**$5**	**$1,205**	**$1,220**
Total	**$10**	**$5**	**$1,705**	**$1,720**

6.7 PFS Recommendation

APPD's *Choosing to Think and Thinking to Choose* program has a highly positive return on investment, due to the low costs of program delivery and the significant effect sizes. If offered to 6,500 high risk offenders, the program could reduce re-arrest rates for non-violent offenses by 13% (a conservative estimate which is only two-thirds of the effect size estimated in the evaluation) which would translate into roughly 70,000 fewer bed days at PPS and State prison facilities. In addition, there is significant value to society in terms of increased public safety, reduced victimization and increased employment

[96] Assumes 3,000 participants served annually with the addition of eight 300 square foot rooms, priced at $20 per square foot.

activity. It is a worthwhile investment for the City and/or State but given the complexity and cost associated with PFS projects, the feasibility study finds that this program is likely not a good fit for PFS.

7. Context for Reducing Percentage of Out-of-County Placement of DHS-involved Youth

Every year, hundreds of Philadelphia youth are sent to other parts of the State for treatment and services. They are separated from their families and communities, fall behind in school when credits don't transfer, and experience challenges reintegrating after placement. A wide body of evidence has shown that children placed into foster homes and family settings are more likely to have better long-term outcomes than children placed into group and institutional care. In particular, out-of-county congregate care placements can increase the likelihood of poor outcomes. To date, 80% of Philadelphia youth in congregate care were placed outside the county.[97] Reducing the use of congregate care is a priority for DHS and they have successfully shrunk the population of Philadelphia youth in congregate care from 22.6% of DHS-involved youth in 2013 to 14.5% in May 2015.[98]

Congregate care placements not only result in worse outcomes but also are five to seven times the cost of family-based placements. In addition to the substantial costs to DHS for room and board, additional educational and behavioral treatment costs are borne by the School District of Philadelphia (SDP) and Community Behavioral Health (CBH). In many cases, SDP and CBH are required to pay for these treatment costs, despite having minimal review or control over the curriculum or treatments provided. Table 13 below lists the estimated cost per student per day at three prominent residential treatment facilities outside the county, based on a May 2013 SDP report.

Table 13. Cost per Student per Day (DHS + CBH + SDP)[99]

Service	Devereaux (Brandywine)	Horsham (Inpatient)	VisionQuest (Franklin)
CBH – Treatment	$261	$588	N/A
DHS – Social Services, Room & Board, Misc.	$3	N/A	$158
SDP (Regular Ed.)	$73	$43	$58
SDP (Special Ed.)	$200*	N/A	$167
Total Regular Ed.	**$337**	**$631**	**$216**
Total Special Ed.	**$464**	**N/A**	**$324**

* Includes an 8% mark-up from Chester Co Intermediate Unit (CCIU)
In addition, there are annual costs of $1,130 for service coordination and periodic charges of $986 for IEP / Psychological Evaluation at Devereux and up to $250 per student from DHS for a clothing allowance at Devereux and VisionQuest. If the student has a 1:1 aide at Devereux, the additional cost is $240 per day.

Core to DHS' efforts to reduce congregate care usage is Improving Outcomes for Children (IOC), developed in 2012. With support from Annie E. Casey Foundation and Casey Family Programs, DHS has assessed program strengths and weaknesses, rolled out the Community Umbrella Agency (CUA) system and data-driven, performance management tools to streamline case management and improve provider accountability. They shuttered emergency shelters and introduced a number of new initiatives including

[97] Interview with Jessica Shapiro
[98] Interview with Jessica Shapiro
[99] School District of Philadelphia, 2013

expedited permanency meetings and commissioner approval processes to avoid misuse of congregate care. A Title IV-E waiver from the federal government allowed DHS to use otherwise restricted funds to scale a range of evidence-based services in the community. Finally, DHS has worked closely with judges and judicial staff to expand knowledge and understanding of the appropriate use of group care.Given the robust systematic and infrastructure changes being overseen by DHS, there is little capacity to incorporate new programs or financing models.

In addition to limited capacity at DHS, a PFS project to reduce the use of congregate care would be greatly impacted by the systemic drivers of congregate care placement. In addition to limited community-based solutions, Philadelphia's congregate care usage is driven by the following systemic factors:

- *Limited availability of general and treatment foster homes:* Particularly in the case of teenage youth, there is a lack of foster family capacity across the county. Greater recruitment and support of kin and foster families as well as training of foster parents in evidence-based treatment models has been shown to be a more effective and economical alternative to group care.[100] In addition, FFT requires a permanent caregiver or parent to participate in the program and this could be limited by the availability of foster homes.

- *Lack of short-term, treatment-focused residential care programs.* While longer-term residential care is needed in certain extreme cases, extended removal from community-and family-based settings, particularly for out-of-county placed youth, can be severely detrimental to child permanence and well-being. This is due, in part, to the lack of short-term treatment options available at residential treatment facilities within Philadelphia.

- *Misalignment between DHS and the Philadelphia Courts on appropriate use of congregate care.* Approximately 65% of all congregate care placements in Philadelphia in 2014 were directly court ordered.[101] While judicial discretion is an important principle, in some instances, these placements are contradictory to the recommendations of research and what DHS would have otherwise approved. Consequently, DHS has continued to collaborate and provide training within the courts on the alternatives to and consequences of congregate care placement.

7.1. Target Population

Given that PFS funds preventative interventions which target high-need populations with poor outcomes, Social Finance identified risk factors and defining population characteristics for the population with the greatest risk of congregate care placement within the population of 4,000 DHS-involved youth.

- *Race, gender and age:* Involvement in the congregate care system is most prevalent among adolescents, particularly African American teenagers aged 11 to 17. DHS involvement is relatively equal across genders.

- *Pathway to DHS:* Congregate care placement decisions are driven by a number of factors, including in-home conflicts, delinquent and truant behavior and mental health issues. As DHS has systematically decreased the use of congregate care placement for child welfare youth, the

[100] TFC Consultants, Inc. website, 2015
[101] Annie E. Casey Foundation, 2013

percentage of total referrals to congregate care from the Courts has increased.

- *Geography:* DHS-involved youth are located across Philadelphia and are not concentrated in particular police districts or neighborhoods.

Given the characteristics of the population with high rates of congregate care placement, an intervention to reduce placement should target 11 to 17 year olds who exhibit high-risk characteristics, such as truancy and delinquency.

7.2. Needs Assessment

Expert interviews provided insight into the specific needs of the target population, often exacerbated by systematic challenges and gaps in service provision. There is a need for preventative, in-home, community-based and school-based services to reduce avoidable removals from family settings. Through its Title IV-E Waiver Demonstration Project, DHS is able to fund three evidence-based interventions within the county: Parent-Child Interaction Therapy (PCIT), Functional Family Therapy (FFT) and Positive Parenting Program (Triple P). However, these programs are only able to serve a small percentage of the need. An April 2014 report by Temple University noted the scarcity of high-capacity, evidence-based programs in the 22nd police district, particularly with regards to trauma-informed care, behavioral health treatment and educational programming. [102]

7.3. Selection of Interventions for Transaction Assessment

Based on the identification of populations driving congregate care placement and the needs assessment, Social Finance identified national interventions targeting relevant outcomes. The City and Social Finance selected FFT for further analysis based on the quality of evidence of the intervention's impact on key outcomes and the presence of local service providers. In addition, DHS expressed strong preference for FFT given that this intervention is already being incorporated into DHS' service offerings and therefore would be more feasible than introducing a new program into DHS' system. The transaction assessment for FFT is included below.

8. Transaction Assessment: Functional Family Therapy

There has been a city-wide focus on expanding the availability of evidence-based, community-based behavioral health interventions through integrated efforts by DBHIDS and DHS. A PFS project could complement these initiatives by expanding FFT. The ROI analysis for FFT indicates that for every $1.00 invested, there is approximately $3.80 in value generated. This value accrues to multiple levels of government, and therefore a PFS project would likely require the participation of the State. A PFS project would depend on mitigating operational risks, including coordination between City agencies and with the new system of CUAs. In addition, in order to expand beyond the population of delinquent youth currently receiving FFT in Philadelphia, the project would require the development of a robust referral pipeline of dependent youth. The evidence base for FFT is strongest for delinquent youth and in order to attract private funders, the City would need to build the data-driven rationale for FFT's application to the dependent population, such as demonstrating the similarity between the delinquent and dependent youth demographics. Based on the below analysis, there is potential for a PFS project to

[102] Roman et al, 2014

expand FFT in the future but it relies on a variety of factors including inter-agency coordination, building the evidence base and State participation.

8.1 Intervention

FFT is an intensive, three- to five-month treatment that works with youth, aged 11 to 17, with behavioral offenses, substance abuse needs and/or history of juvenile justice involvement. The family-driven model views youth behavior as serving a function within the family and requires the active participation of the caregiver or parent. FFT can be administered as an alternative to incarceration or out-of-home placement and is most effective when offered as soon as a problem is identified. It typically includes eight to twelve one-hour therapy sessions with the youth and caregiver, often held in the home on evenings or weekends. It is a risk-based model and often more frequent meetings are held in earlier stages of the FFT intervention. Each site must have at least one team of therapists, which includes a site coordinator and part-time therapist and three to eight full-time therapists. The model requires a ratio of five to fifteen families per therapist. In Philadelphia, however, FFT LLC recommends that therapists serve no more than ten families given the high needs of families so our analysis assumes a ratio of ten families to one therapist.

8.2 Local Service Provision

FFT has been offered in Philadelphia since 1999 and there are currently two accredited providers operating in the City: The Consortium and Intercultural Family Services. FFT LLC, the model's training and dissemination organization, categorizes the Philadelphia providers' teams as Phase III which indicates they are fully trained and accredited.[103] In addition, DHS, in collaboration with CBH, is working to expand FFT capacity as part of the Child Welfare Demonstration Project including providing technical assistance and training child welfare staff.

In recent years, the volume of referrals to FFT providers in Philadelphia has decreased from 858 cases in 2010 to less than 500 cases in 2014. As a result, the number of providers has also dropped from three to two in recent years. There have been a number of challenges to provide FFT in Philadelphia: the majority of referrals, approximately 65% in 2014, come from the Family Court system and there has been increasingly fewer referrals from the courts in recent years. In addition, Medicaid reimbursement rates only cover part of the providers' cost, forcing providers to subsidize the provision of FFT to Philadelphia youth.[104] In addition, DHS and CBH are pursuing a blended funding strategy in which DHS covers some of the FFT activities which are not eligible for Medicaid reimbursement.

For a PFS-funded expansion of FFT, it will be important to expand the volume of referrals from non-court sources, such as mental health services, the child welfare system and the school system, which represented 9.5%, 6.3% and 3.5% of referrals to FFT in 2014, respectively.

8.3 Evidence Base

The FFT model is supported by 40 years of research and evaluations, and has demonstrated significant reductions in juvenile recidivism, days spent out-of-home, and child behavioral problems. A RCT

[103] Interview with Liz Campbell, 2015

[104] FFT LLC estimates the cost of providing the program to be approximately $3,900 while Medicaid reimbursements for FFT cover approximately 60% of that, or $2,400 per youth.

conducted in 1973 with Salt Lake County's Juvenile Court system found that youth receiving FFT had a 48% reduction in recidivism in comparison to a control group.[105] There is more robust evidence demonstrating impact on youth outcomes in the juvenile justice system rather than in the child welfare system, but studies have demonstrated reduction in out-of-home placements for both populations. FFT is being implemented in nine sites across Pennsylvania and EPISCenter is evaluating the outcomes for child welfare-referred youth as well as court-referred youth.

A PFS project would be well-supported by FFT's substantial evidence base demonstrating its positive impact on system-involved youth. However, this evidence base is mainly focused on juvenile justice-involved youth and therefore a PFS project which targeted delinquents and dependents would be shifting away from the core of FFT's evidence base. In order to attract funders for a PFS project, the City would need to build the data-driven rationale for FFT's application to the dependent population, such as demonstrating the similarity between the delinquent and dependent populations to make a compelling argument that the evidence for FFT's impact on delinquents also applies to dependents.

8.4 Target Population

FFT targets youth who are presenting externalizing behaviors, ranging from oppositional and defiant behaviors to serious criminal offenses. In addition, FFT is effective for families with high conflict, ineffective parenting skills and heavy system involvement.[106] Philadelphia currently provides FFT to delinquent and dependent youth, though 80% of FFT recipients are delinquent youth. A PFS-funded project could expand the target population to serve a larger percentage of dependent youth.[107] Both the dependent and delinquent populations have high-risk of out-of-home placement. The population could include youth stepping down from congregate care placement and youth exhibiting high-risk behavior and at risk for being placed.

8.5 Cost-Benefit Analysis

A high-level return on investment analysis, incorporating the costs of program delivery with the potential benefits and costs averted by the program outcomes, finds that FFT generates approximately $3.80 in value for every $1.00 invested in the program. The analysis is based on assumptions outlined in the below tables.

Table 14 estimates the predicted cost aversion caused by lower rates of youth placement into out-of-home care as a result of use of FFT as a preventive measure. It also factors in costs averted and value created through increased earnings and lower public benefit utilization.

[105] Alexander and Parsons, 1973

[106] Campbell and Bumbarger, 2012

[107] The ROI analysis assumes that a PFS project would serve 510 additional youth, doubling the current provider capacity of FFT in Philadelphia, of whom 33% would be delinquent and 67% would be dependent. Any assumptions on project size are just used to estimate service expansion costs and would have to be verified during project development.

Table 14. Baseline vs. Predicted Cost per Outcome

Placement	Daily Marginal Cost	Bed Days	Cost Per Person	Baseline Placement Rate	Total Baseline Cost	Predicted Placement Rate	Predicted Cost	Proportion of Program Participants [108]	Net Cost or Value Per Outcome
	[A]	[B]	[A X B]	[C]	[A X B X C]	[D]	[A X B X D]	[E]	[[A x B x C] – [A x B x D]] x [E]
Dependent Foster Care Placements	$48[109]	800[110]	$38,100	60%[111]	$22,900	47%[112]	$18,000	44%	$2,100
Dependent Cong. Care Placements	$149[113]	435[114]	$77,600[115]	60%	$46,600	47%	$36,600	23%	$2,300
Delinquent Day Treatment Placements	$53[116]	78[117]	$5,200[118]	58%[119]	$3,000	39%[120]	$2,000	8%	$100
Delinquent Congregate Care Placements	$191[121]	65[122]	$15,000[123]	58%	$8,700	39%	$5,900	26%	$700
Value of Educational Attainment	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	$2,100[124]

[108] Proportions of program participants based on breakdown of current DHS and juvenile justice populations across four placement categories.
[109] Sub-contracted per diem rate with community umbrella agencies for general foster and kinship care.
[110] Casey Family Foundations and Annie E. Casey Foundation, 2014
[111] Baseline placement rates were not available for the child welfare population. Interview with FFT LLC indicated that historical placement rates for dependent youth are higher than for delinquent youth so this analysis assumes a 60% baseline placement rate for dependent youth.
[112] Impacts on out-of-home placement for the child welfare population were not available for FFT. To be conservative, we discounted the 32% effect size applied to the delinquent population by 33%.
[113] Based on DHS administrative data, weighted average per diem rate for group homes, institutions and emergency shelters.
[114] Based on DHS administrative data on cumulative congregate care bed days for DHS-involved adolescents.
[115] Calculation includes average SDP cost per placement of $12,800, based on SDP report on Outside Educational Institutions
[116] Based on DHS Juvenile Justice Services administrative data on per diem rate for day treatment placement
[117] DHS Juvenile Justice Services administrative data indicates that average length of stay in juvenile day treatment is 60 days. Pennsylvania Juvenile Court Dispositions Report (2007) indicates that juvenile offenders have 1.29 placements (or 78 days in day treatment) over a 24-month follow-up.
[118] Calculation includes Economy League Greater Philadelphia (2011) report estimate of non-prison-related costs of $1,100
[119] 58% based on Philadelphia-specific FFT reporting on percentage of target population at risk of entering or stepping down from placement.
[120] Alexander and Parsons (1973) demonstrated a 48% reduction in juvenile recidivism. To be conservative, we discounted this effect size by 33%.
[121] Based on JJC administrative data on weighted average per diem rate for group homes, residential treatment facilities, respite, secure placement and community-based detention shelters.
[122] JJC administrative data indicates that average length of stay in congregate care placement is 51 days. Pennsylvania Juvenile Court Dispositions Report (2007) indicates that juvenile offenders have 1.29 placements (or 65 days in congregate care placement) over a 24-month follow-up.
[123] Calculation includes Economy League Greater Philadelphia (2011) report estimate of non-prison-related costs of $1,100 and average SDP cost per placement weighted by length of stay for delinquent population ($1,500), based on SDP report on Outside Educational Institutions
[124] Hwang et al (2014) indicates that, on average, all DHS-involved 9th graders miss five or more weeks of school. Kennelly et al (2007) study estimates that 8th graders absent more than five weeks have a 78% dropout rate. Carroll et al (2009) estimates the lifetime taxpayer benefit high school graduation at $134,000. Our analysis discounts this benefit to ten years and assumes a 10% impact of intervention in high school graduation.

As shown in Table 15 below, delivery of FFT would cost roughly $3,900 per youth or $1,830 including Medicaid reimbursement. There would be additional costs in the first two years for training new staff and re-certification of service providers.

Table 15. Estimated FFT Program Delivery Costs

Cost Measure	Cost
Variable Costs	
Marginal Cost Per Youth	$3,900
Marginal Cost Per Youth (After Medicaid Reimbursement)	$1,830
Fixed Costs	
Year 1 Training Costs Per Youth	$5
Year 1 Phase I Re-Certification Cost Per Site (Incremental to Phase III Re-Certification Cost)	$50
Year 2 Phase II Re-Certification Cost Per Site (Incremental to Phase III Re-Certification Cost)	$15
Average Program Delivery Costs Per Person (Excluding Medicaid Reimbursement)	**$1,900**

Based on the above assumptions, our model estimates a directionally positive return on investment for FFT due to reductions in the rate of out-of-home placement and greater educational attainment among program youth.

Table 16. Return on Investment

Per Person Cost	Net Cost or Value
FFT Program Delivery Costs (Excluding Medicaid Reimbursement)	**$(1,900)**
Child Welfare Cost Aversion	**$4,400**
Reduced Dependent Foster Care Placement	$2,100
Reduced Dependent Congregate Care Placement	$2,300
Juvenile Justice Cost Aversion	**$800**
Reduced Delinquent Day Treatment Placement	$100
Reduced Delinquent Congregate Care Placement	$700
Value Creation	**$2,100**
Educational Attainment	$2,100
Net Cost Aversion / Value Creation (per person)	**$5,400**
Preliminary Return on Investment (ROI)	**380%**
Preliminary Return on Investment (ROI) excluding Federal and State benefits	**110%**

8.6 Accrual of Benefits and Potential Payors

Tables 17 and 18 present two scenarios for accruals of FFT-generated benefits to Federal, State and City government. In the first scenario, summarized in Table 17, we assume that youth are placed into facilities which are ineligible for IV-E reimbursement and therefore there is no accrual of benefits to the Federal level. In the second scenario, summarized in Table 18, we assume that youth are eligible for IV-E reimbursement under the Child Welfare Demonstration Project and that facilities are eligible for IV-E reimbursement. All possible scenarios are summarized in Appendix G.

Table 17. Accrual of benefits assuming facility is ineligible for IV-E reimbursement

Source of Benefits	Federal	State	Local	SDP	Total
Reduced Dependent Foster Care Placements	$0	$1,700	$400	$0	$2,100
Reduced Dependent Cong. Care Placements	$0	$1,300	$600	$400	$2,300
Reduced Delinquent Day Treatment Placements	$0	$80	$20	$0	$100
Reduced Delinquent Congregate Care Placements	$0	$400	$200	$100	$700
Cost Aversion Per Person	**$0**	**$3,480**	**$1,220**	**$500**	**$5,200**
Value of Educational Attainment	$1,400	$350	$350	$0	$2,100
Value Creation Per Person	**$1,400**	**$350**	**$350**	**$0**	**$2,100**
Total	**$1,400**	**$3,830**	**$1,570**	**$500**	**$7,300**

Table 18. Accrual of benefits assuming facility is eligible for IV-E reimbursement

Source of Benefits	Federal	State	Local	SDP	Total
Reduced Dependent Foster Care Placements	$1,100	$800	$200	$0	$2,100
Reduced Dependent Cong. Care Placements	$500	$900	$500	$400	$2,300
Reduced Delinquent Day Treatment Placements	$50	$40	$10	$0	$100
Reduced Delinquent Congregate Care Placements	$150	$300	$150	$100	$700
Cost Aversion Per Person	**$1,800**	**$2,040**	**$860**	**$500**	**$5,200**
Value of Educational Attainment	$1,400	$350	$350	$0	$2,100
Value Creation Per Person	**$1,400**	**$350**	**$350**	**$0**	**$2,100**
Total	**$3,200**	**$2,390**	**$1,210**	**$500**	**$7,300**

8.7 PFS Recommendation

Given competing priorities and limited DHS capacity, we do not recommend that DHS pursues PFS financing to expand FFT to delinquent and dependent children in order to reduce the use of out-of-county congregate care treatment. Given the highly positive ROI, Philadelphia could consider pursuing PFS-financed expansion of FFT in the future. In addition to sufficient capacity at DHS, the development of a PFS project would rely on: 1) the commitment of the State to participate as an outcomes payor; 2) ensuring that an adequate referral pipeline of dependent youth was developed; and 3) building the data-driven rationale for FFT's application to the dependent population, given the lack of formal evidence for that specific population.

9. Investor Landscape

There are currently seven PFS projects actively providing services, which provide precedent for assessing the investor appetite for a PFS project in Philadelphia. PFS projects to date have attracted a variety of investors and investor types, from national financial institutions to local philanthropies. Table 19 summarizes the funders for the existing PFS projects.

Table 19. Summary of existing PFS project funders

Project	Funders/Impact Investors
Massachusetts Juvenile Justice Initiative	Goldman Sachs, Bloomberg Philanthropies
Utah High Quality Pre-School Initiative	Goldman Sachs, J.B. Pritzker
New York State Re-Entry Employment Services	Individual clients of Bank of America Merrill Lynch wealth management platform, Robin Hood Foundation, Laura and John Arnold Foundation, Pershing Square Foundation
Massachusetts Recidivism Reduction and Employment	Goldman Sachs, Kresge Foundation, Laura and John Arnold Foundation, The Boston Foundation, New Profit, Living Cities
Chicago Child-Parent Center Initiative	Goldman Sachs, Northern Trust, J.B. & M.K. Pritzker Family Foundation
Cuyahoga County Partnering for Family Success Program	Laura and John Arnold Foundation, The George Gund Foundation, Cleveland Foundation, Sisters of Charity Foundation of Cleveland, The Reinvestment Fund
Massachusetts Initiative to Reduce Chronic Individual Homelessness	Santander Bank, Corporation for Supportive Housing, United Way of Massachusetts and Merrimack County

9.1 Investor Priorities

While many PFS investors have been attracted by the concept of PFS rather than focus on particular issue areas or geographies, a range of priorities have emerged among PFS investors:

- *Geographic priority:* Certain PFS funders have a regional focus and have invested in PFS projects which expand service provision in their priority geography, such as The Robin Hood Foundation in New York City, The Boston Foundation in Massachusetts and The Cleveland Foundation in Cuyahoga County.
- *Issue area priority:* Certain PFS funders prioritize an issue or policy area. For example, the Corporation for Supportive Housing invested in the Massachusetts Initiative to Reduce Chronic Individual Homelessness and J.B. & M.K. Pritzker Family Foundation invested in the early childhood education project in Chicago.
- *Investor protection:* In previous projects, funders have requested legal protections in order to mitigate the risks associated with this novel financing instrument. In particular, funders will look to security provided by contract provisions around termination rights, legislation on appropriations and upcoming political transitions. In general, investors are sensitive to losing principal and would prefer to structure repayment to ensure principal repayment, rather than enhancing returns.

9.2 Philadelphia investor context

Investor appetite for a PFS project in Philadelphia may depend on which intervention is selected for a PFS project. Philadelphia has a robust network of community-based and regionally focused potential funders, including community development financial institutions, local financial institutions, philanthropies and impact investing networks. There is familiarity with the PFS model, particularly among the philanthropic and academic communities in Philadelphia. There have been opportunities to learn about the model over the last few years, including seminars and conferences hosted by local universities. In addition, there is commitment to both issue areas and particular interventions among local foundations: the Greenlight Fund is supporting CEO's initial operations in Philadelphia while Scattergood Foundation is focused on behavioral health interventions. There are a number of foundations which have been involved in supporting the City's efforts to improve outcomes for system-involved youth, including Stoneleigh Foundation and the regional foundations, Annie E. Casey Foundation and Casey Family Programs. In addition, there are a range of impact investors in Philadelphia who may be interested in supporting a PFS project, including university endowments and the Investors' Circle Philadelphia.

Initial conversations have demonstrated interest among philanthropic and private funders, although there is still some skepticism around the concept and potential for investors. In order to determine interest among funders, key questions around termination rights, appropriations, legislation and service provision will need to be answered. In addition, the structure of the capital stack for a PFS project will be informed by the strength and relevance of the evidence base, the repayment structure and timeline and investor comfort with likelihood of repayment.

10. Legislative Requirements

PFS requires government contracting that has important distinctions from how government normally purchases goods and services. By contracting for outcomes the government shifts the performance risk away from the taxpayers. This contractual distinction often requires jurisdictions to pursue legislation in order to implement PFS. In particular, a jurisdiction may need an authorizing ordinance to approve the multi-year, outcomes contingent PFS contract. In addition, legislation may be required to protect the upfront investment in service provision. Because government only pays if and when outcomes are achieved, funders need to be assured that their investment will repaid in the event of success.

While there are standard themes across PFS contracts, each contract is unique and must take into account contextual requirements, priorities, and local legislation. Given that a PFS project in Philadelphia will require a multi-year contract and budget, City Council's support will be integral to successfully launching a PFS project. Additional questions around investor protection and contract mechanism would likely need further investigation as a PFS project is developed.

10.1 Authority required for multi-year contract

Typically, social outcomes included in a PFS project take more than a year to be achieved and evaluated. One of the promises of PFS is the ability to invest in a social intervention strategy for multiple years, which gives providers the opportunity to focus on multi-year service delivery. Accordingly, a PFS contract spans multiple years to cover service provision and outcomes payments. In Philadelphia, the

government requires an authorizing ordinance from City Council in order to enter into a multi-year contract.[125] Except for a contract with a governmental authority, any contract which lasts beyond four years must include a provision that the City can cancel the contract at any time after four years without penalty.[126] If this time limitation cannot be removed or extended, a PFS contract will likely be limited to four years, including service provision and repayment.

10.2 Investor protection in multi-year budget

In order to shift the performance risk for achieving outcomes away from taxpayers, the government must ask another party to bear that risk. In PFS, private investors provide upfront funding on the promise that government will repay investors in the event of success. This shift in performance risk to private funders may require Philadelphia to adjust aspects of their contracting process, specifically:

- *Termination rights:* In order to successfully launch a PFS project, Philadelphia will likely have to revise their standard termination rights in order to account for the shift in performance risk. In particular, challenges may arise where a government has the right to unilaterally terminate a contract but investors can only be repaid if outcomes are achieved. The government may need to consider paying a penalty if they terminate or materially breach the contract in between evaluation periods.
- *Multi-year appropriations:* Philadelphia City Council can pass an ordinance for a contract that commits Council to provide appropriated funds for the contract for each subsequent year.
- *Appropriation risk*: Investors may seek additional protection beyond a commitment to future appropriations (see sidebar examples). If City Council passes an authorizing ordinance for a contract, it constitutes the City's commitment to fund the contract with annual appropriations. Further inquiry is needed into whether this mechanism would provide sufficient assurances or if additional measures would need to be taken, such as contracting with a city authority that could place money in escrow.

FINANCING VEHICLES

Legislation often specifies the mechanism by which a jurisdiction authorizes, appropriates and spends government dollars on PFS outcomes payments:

Massachusetts created the Social Innovation Financing Trust Fund which backs PFS contracts with the full faith and credit of the Commonwealth for PFS payments up to $50 million and appropriated funding for the Commonwealth's future obligations once the contract was signed.

New York State annually or biannually appropriates funds to cover the full contract amount as a separate line item in their budget but without holding the dollars in a fund or escrow. Outcomes payments will not be made until years 4 and 5.5 of the project.

10.3 Contingent contracts

In a PFS project, the intermediary contracts with nonprofit organizations for the delivery of the intervention, rather than the government contracting with the nonprofit. With this PFS contracting

[125] Interview with Dan Cantu-Hertzler, 2015
[126] Interview with Dan Cantu-Hertzler, 2015

structure, a separate limited liability company, established and managed by the intermediary, disburses private funding to the service provider to cover operational and expansion costs and the government repays the funders, via the intermediary, after outcomes are achieved. This contract structure often provides funders more comfort than if the government contracts with providers directly.

There are various contractual and project structures which ensure governments have a role in monitoring service provision, even without a direct contractual relationship. Certain government-required provisions flow down through the intermediary to service providers and project governance structure can ensure the government is involved in decision-making committees.

One Philadelphia-specific concern in contracting the service provider is related to statutory restrictions around data sharing in the criminal justice system. Pennsylvania's Criminal History Records Information Act (CHRIA) can be limited when an entity is contracted as an extension of the criminal justice system. However, this easing of restrictions may not apply if the criminal justice system is contracting services through an intermediary. PFS projects require data throughout the phases of assessing project feasibility, project development and service provision and any contracting structure should enable administrative data sharing as needed.

11. Next Steps

To date, PFS projects have taken between six and eighteen months to design, develop, contract and launch services. Philadelphia has completed a detailed feasibility study which may help expedite project development, particularly in terms of program design.

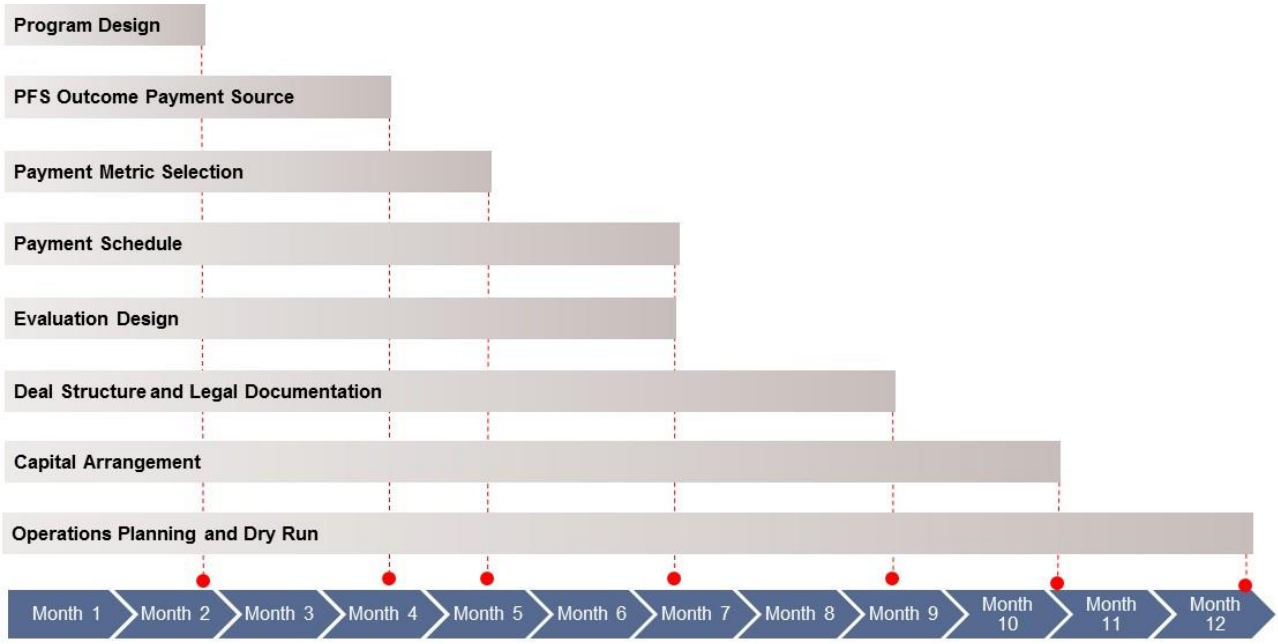
11.1 Project Development Timeline

The key components during project development are:

- *Program design*, in terms of selection of program model, service provider(s), target population and referral pipeline
- *Evaluation*, in terms of selection of evaluation methodology and evaluator and development of data-sharing agreements
- *Economics*, in terms of identifying outcomes and value generated, developing a pricing model, and payment curve
- *Finance and legal,* in terms of contract development, negotiation and execution, and capital raise

A high-level project development timeline is included below, assuming a 12-month timeline to project launch.

Figure 1. High-level PFS project development timeline



The project development timeline could vary in Philadelphia depending on a number of risk factors:

- *Coordination with the State:* In addition to assessing feasibility at the City level, the State is beginning its own PFS process. In March 2015, Pennsylvania won a national competition to receive technical assistance from the Harvard Kennedy School Social Impact Bond Lab (SIB Lab) to develop PFS projects. Subsequently, the State released a Request for Information (RFI) to support their PFS efforts. RFI responses are due May 8, 2015 and technical assistance from the SIB Lab will likely not start until early summer 2015. This could delay the City's process to pursue a PFS project but the City should ensure its efforts are explicitly coordinated with the State.
- *Buy-in and commitment from decision makers:* PFS project development timelines are generally driven by the key decision-makers involved, who are often top officials. A project in Philadelphia will likely require the buy-in and commitment of the new mayor, commissioners of relevant agencies, the City Council president and relevant State officials. In addition, in order to move forward and facilitate decisions, a PFS project needs a champion, ideally at the City and State.
- *Legislative requirements:* In addition to commitment of government champions, Philadelphia will require legislation to implement PFS, in order to enter into a multi-year contract, make payments contingent on performance, and provide risk protection to funders. City Council's legislative role will be crucial to the City's pursuit of PFS.
- *Transition risk:* While the feasibility study was driven by strong commitment from the Nutter Administration, the project development timeline will likely continue through the next administration, and project implementation will necessarily extend beyond this administration. Any subsequent project development should engage a broad set of stakeholders outside City executive agencies, as well as build in sufficient time to educate and engage a new administration. In other PFS projects, administration transitions have resulted in significant delays in the timeline and even abandonment of the project.

- *Data sharing:* In previous projects, deals have been delayed due to inability to access administrative data. In order to avoid significant delays due to data access, parties should begin discussions around data requirements and restrictions as early as possible and should ensure communication around data sharing and access are ongoing. This is particularly important if data under CHRIA is relevant, given the level of restriction on sharing data under CHRIA.

11.2 Next Steps

In terms of methodology, the feasibility study analysis focused on program design, including program model and potential return on investment, local service provision, target population and referral pipeline. In addition, the feasibility study assessed contextual requirements, including investor landscape, legislative requirements and ability to share data. The next phase of work, should the City choose to continue, would be transaction development.

In transaction development, there are typically questions which can only be addressed with committed payor(s). In particular, the number of individuals served, overall budget and project size, project timeline, evaluation methodology and repayment structure are all inter-related and inter-dependent and are often negotiated jointly with multiple stakeholders. Therefore, the feasibility study analysis was conducted on a per-person basis in order to allow for different project sizes and repayment structures. For example, the evaluation methodology and length of follow up will directly impact the repayment structure and timeline of the project.

Our recommendations find that the potential interventions are at different stages of PFS readiness. We find that a workforce reentry transitional jobs program in order to reduce recidivism will likely be the fastest project to implement in terms of local service provision and state interest. A supportive housing intervention would require a longer timeline for project development given complexity associated with inter-agency collaboration and data sharing. In addition, the City would need to be willing to incorporate the social value of supportive housing in order to attract investor capital. Functional Family Therapy will support the City's efforts to reduce the percentage of congregate care placements and will also require a longer timeline for project development, given lack of information about the State's interest and their required participation as well as the complexity of implementation at the City level.

In terms of immediate next steps, the City should coordinate closely with the State's efforts in pursuing PFS and ensure any municipal efforts are aligned with the State's process and timeline. Given the upcoming transition, it is important for the City to continue engaging with stakeholders external to the City to gain buy-in for a future PFS project. This could include a broader set of City agencies, State agencies, academics, foundations and subject matter experts. Previous jurisdictions have struggled to pursue multiple PFS projects at once so the City should likely consider sequencing multiple projects over time.

Appendices

Appendix A. Selected Citations and Data Sources

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Administrative Data

Philadelphia Prison System
Philadelphia Department of Human Services
Philadelphia Department of Behavioral Health and Intellectual Disability Services
Philadelphia Office of Supportive Housing
Philadelphia Adult Probation and Parole Department

Appendix B. Interviews Conducted

Related to congregate care reduction:

First name	Last name	Organization
Chris	Behan	Annie E. Casey Foundation
David	Bruce	DHS
Liz	Campbell	EPISCenter
Timene	Farlow	DHS
Jessica	Feierman	Juvenile Law Center
Fran	Gutterman	Casey Family Programs
Naomi	Housman	SDP
Feather	Houstoun	School Reform Commission
Matthew	Hurford	DBH
Susanna	Kramer	DBH
Larita	Lee	DHS
Suet	Lim	DBH
Karyn	Lynch	SDP
Mark	Maher	DHS
Samantha	Matlin	DBH
Meredith	Matone	CHOP PolicyLab
John	McNamee	DHS
Helen	Midouhas	FFT LLC
George	Mosee	Philadelphia Defender Association
Marlene	Olshan	DHS
Lori	Partin	DHS
Ronnie	Rubin	CBH
Cynthia	Schneider	DHS
Raheemah	Shamsid-Deen Hampton	DHS (State)
Robert	Spencer	DHS
Bi	Vuong	SDP
Benita	Williams	DHS
Jean	Wright	CBH
Sarah	Zlotnik	CHOP PolicyLab

Related to recidivism reduction:

First name	Last name	Organization
Bret	Bucklen	DOC
Peilin	Chen	PRA
Byron	Cotter	Philadelphia Defender Association
Richard	Greenwald	Mayor's Office, Youth Violence Prevention

Bill	Hart	RISE
Charles	Hoyt	APPD
Matt	Joyce	Greenlight Fund
Susan	Kretsge	Deputy Mayor for Health and Opportunity
Ellen	Kurtz	APPD
Rhonda	McKitten	Philadelphia Defender Association
Andy	McMahon	CSH
Darlene	Miller	APPD
Dan	O'Brien	PhillyRising
Ellyn	Sapper	Philadelphia Defender Association
Josh	Sevin	Economy League of Greater Philadelphia
Christopher	Welsh	Philadelphia Defender Association
Zachary	Wilkerson	PPS

Related to overall context and stakeholder engagement:

First name	Last name	Organization
Brittany	Anuszkiewicz	The Stoneleigh Foundation
Tom	Balderston	SustainVC
Chris	Bentley	Investors' Circle
Michael	Dahl	The Pew Charitable Trusts
Tim	Durkin	The Pew Charitable Trusts
Ashley	Feuer-Edwards	Philanthropy Network Greater Philadelphia
Eva	Gladstein	Mayor's Office of Community Empowerment and Opportunity
David	Gould	The William Penn Foundation
Jacob	Gray	Wharton Social Impact Initiative
Andrew	Hohns	Mariner Investment Group
Frazierita	Klasen	The Pew Charitable Trusts
Katherine	Klein	Wharton Social Impact Initiative
Sheryl	Kuhlman	Wharton Social Impact Initiative
Stephanie	Marsh	Mayor's Office, Legislative Affairs
Diana	Millner	The Stoneleigh Foundation
Robert	Murken	Mayor's Office, Legislative Affairs
Maari	Porter	Philanthropy Network Greater Philadelphia
Joe	Pyle	The Scattergood Foundation
Andy	Rachlin	The Reinvestment Fund
John	Roman	The Urban Institute
Sara	Vernon Sterman	The Reinvestment Fund

Appendix C. Evidence-Based Interventions (Reducing Recidivism)

- Affordable Homes Program
- Auglaize County Transition (ACT) Program
- Boston Reentry Initiative
- Center for Employment Opportunities (CEO) Workforce Reentry Program
- Cognitive Behavioral Treatment (for high and moderate risk offenders)
- College Program
- ComALERT
- Connections Program
- Correctional Education (basic or post-secondary) in prison
- Correctional Industries in Prison
- CREST
- Drug Courts
- Drug Offender Sentencing Alternative (for drug offenders)
- Electronic Monitoring (parole/probation)
- Employment Training/Job Assistance in the Community
- EQUIP Program
- Forensic Intensive Recovery (FIR)
- Halfway Back Program
- Halfway Housing
- Individual Placement and Support (IPS)
- Inpatient/Intensive Outpatient drug treatment (community/incarceration)
- Intensive Supervision (Surveillance & Treatment)
- Joyce Foundation's Transitional Jobs Reentry Demonstration
- Lifestyle Change Program
- Mental Health Courts
- Mental Health Services Continuum Program
- Mentally Ill Offender Community Transition Program
- Moral Reconation Therapy
- Moving On
- Multisystemic Therapy (MST) - Emerging Adults (EA)
- NJ State Parole Board Day Reporting Center
- Offender Reentry Community Safety Program
- Outpatient/non-intensive drug treatment (community/incarceration)
- Preventing Parolee Crime Program
- Prisoner Reentry Initiative
- Private Family Visiting
- Project BUILD
- Project Greenlight
- Project Home
- Project RIO
- RDAP
- Ready4Work
- Ready, Willing & Able
- Re-Integration of Ex-Offenders
- Restorative Justice Programs
- Risk Need & Responsivity supervision (for high and moderate risk offenders)
- Serious and Violent Offenders Reentry Initiative
- Sex offender treatment (community/incarceration)
- Swift & Certain/Graduated Sanctions for Substance Abusing Offenders
- The Choice is Yours (TCY)
- Therapeutic Communities for Chemically Dependent Offenders (community/incarceration)
- Therapeutic Communities for Offenders with Co-Occurring Disorders
- Trauma-Focused Cognitive Behavioral Treatment (for high and moderate risk offenders)
- Violence Prevention Program
- Vocational Education in Prison
- Volunteers of America
- Work Release

Appendix D. Evidence-Based Interventions (Reducing Out-of-County Congregate Care Placement)

- 4R Skills for Youth Relationships
- Adult-Focused Family Behavior Therapy (Adult-Focused FBT)
- Aggression Replacement Training (ART)
- Al's Pals
- Becoming a Man
- Big Bros/Big Sisters
- Big Brothers Big Sisters
- BlueSky
- Brief Strategic Family Therapy (BSFT)
- Chelsea Foyer Program
- Cognitive Behavioral Therapy (CBT) for Juvenile Offenders
- Connections Wraparound
- Coordination of Services
- Dialectical Behavior Therapy (DBT)
- Drug Courts
- Evidentiary Family Restoration
- Family Center Therapy (FCT)
- Family Assessment and Intervention Response (FAIR)
- Family Finding
- Family Search and Engagement (FSE)
- Fast Track
- Fostering Health Futures
- Functional Family Parole
- Functional Family Therapy (FFT)
- Good Behavior Game
- Integrated Service Model
- Intensive Family Preservation Services (Homebuilders)
- Intercept
- Juvenile Detention Alternatives Initiative
- LifeSkills Training Program
- Mentoring
- Motivational Enhancement Therapy (MET)
- Multisystemic Therapy (MST) - Problem Sexual Behavior (PSB)
- Multisystemic Therapy (MST) - Building Stronger Families (BSF)
- Multisystemic Therapy (MST) - Child Abuse and Neglect (CAN)
- Multisystemic Therapy (MST) - Family Integrated Transitions (FIT)
- Multisystemic Therapy (MST) - Psychiatric
- Multidimensional Family Therapy (MDFT)
- Multidimensional Treatment Foster Care for Adolescents (MTFC-A)
- Multisystemic Therapy (MST)
- Neighborhood Solutions
- Nurturing Program for Families in Substance Abuse Treatment and Recovery
- Olweus Bullying Prevention
- PACE
- Parent Management Training (PMTO™)
- Parents for Parents
- Partners with Families and Children
- PATHS
- Pathway to Reunification
- Positive Action
- Prevention Treatment Program
- Recovery Specialist Voluntary Program (RSVP)
- Reinforcement-Based Treatment (RBT)
- Responding in Peaceful & Positive Ways
- Safecare
- Second Step ®
- Steps2Respect
- Strengthening Families Program
- Subsidized Guardianship
- The Matrix Model
- Therapeutic Communities for Chemically Dependent Juvenile Offenders
- Trauma Focused Cognitive Behavioral Therapy (CBT) for Juvenile Offenders
- Too Good for Violence
- Victim Offender Mediation

Appendix E. Summary of top-ranked interventions in Phase I

Our interim findings indicated that there are evidence-based interventions which are well-aligned for a PFS project to reduce recidivism to PPS and interventions to reduce out-of-county placement.

Evidence-Based Interventions for Reducing Recidivism in Philadelphia Prison System

Intervention	Description	Target Population	Key Outcomes	Evidence Quality	Local Providers Reviewed
Transitional Employment & Support Services	Comprehensive life skills education, short-term paid transitional jobs, full-time job placement and post-placement services to individuals with recent criminal convictions.	First-time offenders - parolees and probationers seeking employment	Increased employment, reduced recidivism, increased job earnings	High	Center for Employment Opportunities (expected in Philadelphia: Spring 2015)
Cognitive behavioral-based intervention for high and moderate risk offenders	Delivered to adults in an institutional or community setting. Focuses on individual accountability and teaches offenders that cognitive deficits, distortions, and flawed thinking processes cause criminal behavior.	Frequent flyers and first-time offenders - high to moderate risk offenders and ex-offenders	Reduced recidivism, reduced violent crime, reduced substance use	High	Adult Probation and Parole Department (APPD), multiple certified therapy programs
Supportive housing for individuals who frequently cycle in and out of jail	Engages and stabilizes people who are high users of the shelter and criminal justice systems, with a Housing First model of supportive housing. The model focuses on providing housing stability and reducing the involvement of participants in the criminal justice system.	Frequent flyers - high-need, high-cost adults with involvement in criminal justice system	Reduced recidivism, reduction in homelessness, reduction in jail days and shelter days	Medium	Provided by intervention providers in the region but not yet in Philadelphia

Evidence-Based Interventions for Reducing the Number of System-Involved Youth in Out-of-County Congregate Care

Intervention	Description	Target Population	Key Outcomes	Evidence Quality	Local Providers Reviewed
Functional Family Therapy (FFT)	Short-term (8-12 sessions) prevention or intervention treatment for troubled youths focusing on entire family functioning. FFT has been conducted in clinical settings as an outpatient therapy and as a home-based model.	Youth, aged 13-21, with behavioral offenses and/or history of juvenile justice involvement	Improved child behavior, achievement and family functioning	High	The Consortium, Intercultural Family Services
Multisystemic Therapy (MST)	Family- and home-based treatment that strives to change how youth function in their natural settings – home, school and neighborhood – in ways that promote positive social behavior while decreasing antisocial behavior.	Youth, aged 12-17, with a history of delinquency and involvement in the juvenile justice system	Improved child behavior and achievement, reduced recidivism, fewer days out of home	High	Wordsworth (MST-PSB adaptation) 40 MST teams serving 54 counties in PA outside Philadelphia
Positive Parenting Program (Triple P)	Parenting and family support system designed to prevent and treat behavioral and emotional problems in children and	Parents of youth aged 12-16 with serious	Improved child behavior, achievement	High	CUA certification in progress

	teenagers. Multi-tiered system of 5 levels of seminars and support for parents and caregivers of adolescents.	behavioral issues	and family functioning		
Trauma Focused Cognitive Behavioral Therapy (TF-CBT)	Conjoint child and parent psychotherapy model for children experiencing significant emotional and behavioral difficulties related to traumatic life events. Incorporates trauma-sensitive interventions with cognitive behavioral, family, and humanistic principles.	Youth, aged 13-17 coping with traumatic exposure	Improved child safety, child behavior and family functioning	High	Multiple certified therapy programs
Multi-Dimensional Treatment Foster Care for Adolescents (MTFC-A)	An alternative to congregate care, adolescents are placed with trained foster families where they learn to accept rules and limits; build skills; and develop appropriate social behavior.	Youth, aged 12-17, in need of out-of-home placement due to delinquency or antisocial behavior	Improved child behavior and achievement, reduced recidivism, fewer days out of home	High	NHS Human Services, NorthEast Treatment Centers (NET)

Appendix F. Glossary

Acronym	Definition
AOD	Alcohol and other drug
APPD	Adult Probation and Parole Department
CBH	Community Behavioral Health
CBT	Cognitive Behavioral Therapy
CEO	Center for Employment Opportunities
CHRIA	Criminal History Records Information Act
CSH	Corporation For Supportive Housing
CTI	Critical Time Intervention
CUA	Community Umbrella Agency
DBHIDS	Department of Behavioral Health and Intellectual Disability Services
DHS	Department of Human Services
FFT	Functional Family Therapy
FUSE	Frequent Users Systems Engagement
JJS	Juvenile justice system
MDRC	Manpower Demonstration Research Corporation
MI	Motivational Interviewing
OSH	Office of Supportive Housing
PFS	Pay for Success
PMA	Performance Management and Accountability Division
PPD	Philadelphia Police Department
PPS	Philadelphia Prison System
RCT	Randomized Control Trial
RISE	Mayor's Office of Reintegration Services
ROI	Return on Investment
SDP	School District of Philadelphia

Appendix G. Summary of DHS funding flows

		DHS			CBH	
		Fed	**State**	**City**		**Notes**
In-Home EBP	MA-eligible				100%	
	Non-MA eligible		80%	20%		
	Non-MA eligible, delinquent		95%	5%		Special grant for non-MA eligible delinquent youth
Foster Care	Non-IV-E eligible		80%	20%		
	IV-E Eligible	53.52%	37.18%	9.30%		
	CWDP (Non-IV-E eligible)	53.52%	37.18%	9.30%		
Group Home	IV-E Eligible (youth and facility)	53.52%	37.18%	9.30%		
	Non-IV-E eligible (due to youth or facility ineligibility)		80%	20%		
	CWDP (Non-IV-E eligible youth in eligible facility)	53.52%	37.18%	9.30%		
RTF			60%	40%		Not IV-E Eligible
YSC			50%	50%		Not IV-E Eligible
Emergency Shelter	IV-E Eligible (youth and facility)	53.52%	41.83%	4.65%		
	Non-IV-E eligible (due to youth or facility ineligibility)		90%	10%		
	CWDP (Non-IV-E eligible youth in eligible facility)	53.52%	41.83%	4.65%		