



Pre-Investment Assessment Recommendations for Social Innovation Fund Awards

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Executive Summary

While social enterprise and social innovation have been a focus of study for several years, only recently have they caught the attention of policymakers in both federal and state governments. The creation of the White House Office of Social Innovation and the Social Innovation Fund (SIF) are two of the many indicators that social enterprise is increasingly seen as an efficient and effective mechanism for addressing some of society's key challenges. The recently established SIF, administered by the Corporation for National and Community Service (CNCS), will spend \$50 million in its first year to support social enterprises proven to have impact on communities, with the hope that this fund will expand in size and scope in the years to come.

While there are many factors that can and are used to evaluate the "success" of an organization or business, the unique position of a social enterprise calls for an evaluation mechanism that determines the enterprise's net social benefit. Many methods for assessing net social benefit of social enterprise have been developed, most notably social return on investment mechanisms, and are used by both foundations and private investors in supporting social enterprises. However, none of these evaluation mechanisms have been adapted for use by the federal government. The federal funding environment is unique because not only must federal funds be applied to projects expected to achieve net social benefit, but tools for comparing funding opportunities must be aligned with current federal funding mechanisms. The government must ensure that it is investing in social innovations and social enterprises that not only are pursuing worthwhile aims, but are also contributing net social gain, rather than loss.

This paper proposes an Impact Assessment Tool for use by the CNCS in evaluating potential investments for the SIF. The tool enables the CNCS to compare net social benefits of different organizations across different funding areas to ensure that the SIF investment portfolio will yield the highest social benefit and, at the same time, minimize potential costs to society. For each of four funding areas, the tool identifies desired indicators of social impact of organizations, and a methodology for calculating that social impact. The four funding areas for which this tool was developed are:

- Reductions in poverty or increases in economic opportunity for economically disadvantaged individuals,
- Child and youth development,
- Health, including access to health services and health education; and
- Crime reduction

The tool was developed as a result of interviews with industry experts, synthesis of existing methods of impact analysis, published works on intervention impact indicators and a test of our methods against real organizations through case studies presented in the paper. The result is a framework that breaks down the various proposed outcomes of interventions into a simplified cost-benefit comparison. After accounting for program costs, the tool provides the net social benefit of the intervention which can be used in making a funding decision.

The tool provides specific calculations tailored for each funding area, but there are common elements that are applicable across different funding areas. The four most prominent impacts are Market Value of Provided Product or Service, Net Market Effects, Compensation, and Government Programs. The theories behind each of these base elements, as well as the calculation mechanisms for these elements, are described in the paper. The tool also includes known calculations for specific funding areas in addition to the base elements.

In addition to ensuring that government funding is directed towards programs that result in a net social benefit, the tool also assists investors in understanding the actual economic benefit of the proposed investment. Applying the tool results in the calculation of a monetary value that is, in fact, the social enterprise's potential contribution to the gross domestic product (GDP). This contribution to GDP is the economic benefit of the social enterprise. Calculating this economic benefit is not only useful to governments planning to invest in social enterprise. Entrepreneurs and others looking to social enterprise as an economic development strategy will find data from these calculations useful in encouraging policies designed to promote social enterprise as an effective economic driver.

It is important to note that the tool is mainly useful in comparing potential investments, rather than in evaluating a single potential investment alone. This research does not specify levels of social benefit that an organization should attain to be deserving of funding. Instead, the tool provides a calculation mechanism that evaluators can use to identify total social benefit, and then compare this figure to that of other organizations to determine the portfolio of organizations that yield the highest social benefit.

By its nature, social innovation and social enterprises are constantly changing and evolving. As new programs and interventions develop, the SIF might need to articulate new funding areas or new requirements based on these new interventions. The assessment tool then must also evolve. Whether through thorough testing or simply repeated use, evaluators should be able to recognize opportunities to improve the tool and to adapt it to meet changing needs. The pilot phase of funding for the Social Innovation Fund provides an opportunity for testing the tool's utility and for making adjustments accordingly. Further research might attempt to test the tool on a larger number of organizations chosen at random, rather than those that have self-selected to apply for SIF funding. These and other future opportunities for research are discussed in the paper.

It is important to note that the Impact Assessment Tool is only one part of a multi-step investment process. In order to identify organizations worthy of SIF funding, the CNCS must also carefully examine the capacity of the organization to deliver on the proposed intervention, ensuring that the organization has both the internal operations and track record to support its proposed intervention and the impacts that it aims to achieve. The paper outlines a recommended funding process, including suggestions for post-evaluation that not only could dictate additional investment but could also further develop the Impact Assessment Tool.

This research concludes with a key challenge facing further development of social enterprise as a sector with potential to mitigate some of society's most pressing challenges: data. In order to use this tool effectively and to demonstrate economic impact, organizations and their evaluators must not only possess robust data regarding economic and other indicators, but they must be able to project the impact their programs would have with additional resources. It is safe to assume that this data collection and analysis is not within the capacity of most social enterprises either because organizations lack the resources to be able to systematically collect this data or they lack the internal expertise to analyze the data.

A key recommendation of this report, then, is to focus on enhanced data collection. Others in the social enterprise sector have called for a stronger focus on standard data collection, and we echo this call not only for accurate use of the Investment Assessment Tool but in making an overall case for investment in social enterprise as an effective mechanism of solving social problems. The establishment of the White House Office of Social Innovation and the Social Innovation Fund provides an ideal venue for the federal government, alongside researchers and practitioners from the social enterprise field, to take the lead on improved data collection and application. Not only will this ensure that government investment in social innovation yields net social benefit, but also that solutions to community challenges will be delivered in a more targeted and efficient way.

Background

In April of 2009, President Obama signed into law the Edward M. Kennedy Serve America Act, which among other things authorized the formation of the Social Innovation Fund (SIF). The fund would be managed by the Corporation for National and Community Service (CNCS), an independent federal agency formed in 1993 with officers appointed by the President and confirmed by the Senate. The goal of the SIF is to provide non-profits with innovative and proven community solutions with growth funding and support to scale and spread their impact.ⁱ

CNCS will grant a total of \$50 million through the fund, pending Congressional approval of the FY2010 budget. Eighty-five percent of the fund will be distributed to intermediary grant-making organizations and matched dollar-for-dollar by the awarding organization to the grantee in amounts of \$1-10 million per year for up to five years. Another 5% will be allocated to research and evaluation within the SIF. The remaining 10% of the funds will be awarded directly by the CNCS.

This report has been developed as a recommendation for the funds directly awarded by the CNCS. However, the principals and tools discussed in this report are widely applicable to decision making by governments, foundations and other not for profits.

Proposal

Many foundations, government agencies and other grant-making entities already have their own schema in place to evaluate grant requests. However, our research shows that these tend to focus on outputs as a proxy for outcomes. As an example, a program that provides subsidized housing may measure the number of houses the program is able to secure and the number of people it is able to house. The value to society of housing these persons is not measured or compared against the operational costs of the program. Similarly, the secondary market effects of displacing other housing providers are not taken into account. A simple output analysis assumes that an initiative only achieves social good. This cannot be taken for granted. The implementation of an initiative means a change to the status quo which could lead to unintended consequences. Unintended consequences lead to the possibility of causing more harm than good. To ensure that a program does not inadvertently cause a negative impact on society, the positive and negative impacts of the initiative must be catalogued and compared in a cost-benefit analysis.

Conducting some form of cost-benefit analysis is important and useful for any private or public initiative. Conducting a cost-benefit analysis is especially critical for government investment in a way that it is not for other private or public initiatives. Maximum efficiency is forced upon private enterprises by the market. The market will ensure that a business either finds a way to operate at maximum efficiency, or folds. Because these forces do not generally apply to government programs, it is best practice for the government to conduct a cost-benefit analysis on its programs. This does not always occur for many reasons, including politics and budgeting.

However, the possibility for unintended consequences represented by government investment in social enterprise means that some form of cost-benefit analysis is critical.

The key principal behind social enterprises is to apply market forces to achieve social gains. Social enterprises operate within the free market alongside or in competition with private enterprise. The operation of a social enterprise in the market, affects the market. As a result, when the government invests in a social enterprise, it also affects the market. This effect can be positive if it improves efficiency in the market. However, this effect is not guaranteed to be positive simply because the mission of the social enterprise is altruistic. For example, if the government investment effectively subsidizes a social enterprise operating in a functioning market, the net effect on society is likely to be negative. Because of the risk of unintentionally negatively affecting a normally functioning market, the government must conduct a cost-benefit analysis before investing in a social enterprise.

As the manager of a fund, the CNCS has a responsibility to maximize the social return on investments. Their mandate ensures that they will be funding a disparate group of enterprises, ranging from focuses on health to education to economic development, with no other target than to achieve maximum social gains. To achieve this, it is critical that CNCS has the tools to compare various projects. CNCS requires a systematic and reproducible, transparent and defensible tool to compare projects. The tool must be quantitatively driven, but also practical.

The Impact Assessment Tool resulting from the work described in this paper aims to provide CNCS with this capability. The tool is the result of interviews with industry experts, synthesis of existing methods of impact analysis, published works on intervention impact indicators and a test of our methods against real organizations. The result is a framework that adjusts innovative interventions and breaks down the various impacts into a simplified cost-benefit comparison. After accounting for program costs, the tool provides the net social benefit of the intervention which can be used in making a funding decision.

Social Entrepreneurship and Social Innovation

Overall, there is little consensus around the definitions of social enterprise and social innovation. Generally speaking, social innovation is defined as new ideas and processes that achieve social aims, while social enterprises are businesses that have a primary social goal but also generate revenue.

Social innovation is sometimes defined so broadly that it includes any innovation with any social benefit. In order to be effective, it is likely that a social enterprise will have to be innovative. However, a social enterprise might not be judged on whether or not it is innovative, but instead on whether it is achieving social good. Therefore, this project focuses on the concept of a social enterprise and assumes that social innovation is a by-product of an effective organization.

What constitutes a social enterprise can also be difficult to define. A common rule of thumb is that a social enterprise is an organization aimed at achieving social good with income derived from business practices rather than, or in addition to, subsidies or donations. However, this definition can also include universities and hospitals, even though these organizations are not the intended recipients of the SIF.

In the absence of consensus around the definition and approach to social innovation, this report conceptualizes social enterprise as:

The practice of responding to market failures with transformative financially sustainable innovations aimed at solving social problems.

The Government Investment Cycle

A traditional government investment cycle has four phases, as illustrated in the figure below.

Figure 1. The Investment Cycle

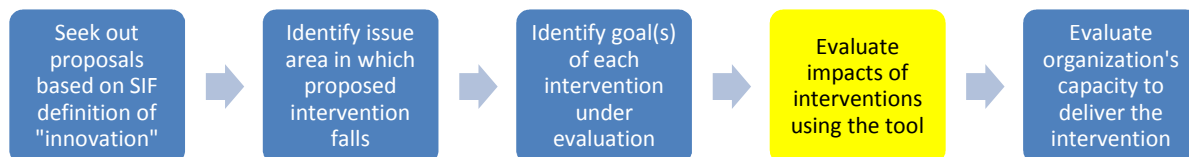


The initial allocation of funds through the SIF will occur as a part of the “pre-investment plan” phase of the investment cycle. However, it is important to note that the allocation is only part of the typical investment cycle. The funded organization will be monitored throughout the process as the intervention is organized and implemented. The evaluation mechanism should be used once again during the “review” phase of the cycle, as it will be important to look back to initial estimates to assess if the organization was able to accomplish its predicted goals and impacts. This connection in the review phase is important for determining if an investment is worthy of additional support. It is also helpful in building a more comprehensive understanding of the potential impact ranges of various investments. Utilizing predicted and actual data will strengthen the evaluation tool.

Impact Assessment in the Funding Process

Assessing the impact of an intervention should be a large factor in the decision to fund an initiative, but it is not the only part of this decision. The logic model of an intervention and the accuracy of projections are also critical to good decision making. A flowchart of the funding decision-making process is below:

Figure 2. Decision-Making Process



As a funder it is very important to define the nature of the proposals. CNCS will have to determine if the proposed interventions fall within the goals and impact areas of the SIF. Our tool does not provide any guidance or information to decide those issues.

Another important part of funding decision-making is determining whether or not the organization truly has the capacity to deliver the results promised. This is especially important for the SIF, since it is intended to scale up existing interventions. The CNCS will have to assess whether or not the size of the impacts promised is truly feasible and sustainable by the organization. However, our tool is meant *only* to assess what and how large those impacts are on society; it is *not* designed to assess the capacity of an organization to deliver those impacts.

Evaluation Methods

Of course, there are existing evaluation methods for assessing nonprofits and social enterprises. Different types of funders have their own mechanisms to evaluate potential grants and there are standard evaluation mechanisms that are in place. Foundations generally evaluate potential grant recipients using a combination of capacity measurements and program evaluation. These methods are essential in demonstrating to the funder that organizations and specific programs are worth an investment. Capacity measures address the organization's ability to effectively manage additional contributions. Program evaluations measure the effectiveness of program outcomes and impacts as well as how well a program meets its mission. Together, both methods contribute to a thorough funding evaluation.

Capacity measures are common in both for profit and nonprofit sectors. These measures are accomplished primarily with the data captured in an organization's financial statements. In, *Financial Management for Public, Health, and Not-for-Profit Organizations*, author Steven A. Finkler states, "All not-for-profit organizations must include a statement of financial position (balance sheet), statement of activities (operating or income statement), statement of cash flows, and notes that accompany these statements, whenever they present a set of audited financial statements."ⁱⁱ The information captured in these statements can then be analyzed to

determine if the organization is in a strong enough financial position to merit funding based on generally accepted ratios. Therefore, financial measures are important to funding decisions. However, since nonprofit organizations exist primarily to serve a social mission, financial measures are not the only evaluation criteria.

Program evaluation methods are used to empirically demonstrate the value and effectiveness of the activities that support an organization's mission. The W.K. Kellogg Foundation Evaluation Handbook suggests that "when most people think about program evaluation, they think of complex experimental designs with treatment and control groups where evaluators measure the impact of programs based on statistically significant changes in certain outcomes; for example, did the program lead to increases in income, improved school performance, or health-status indicators, etc.?"ⁱⁱⁱ Program evaluation attempts to quantify the success of given programs using a scientific method of data collection and analysis. This is useful for funders because it allows them to objectively compare the effectiveness of organizations whose impacts are qualitatively based and more subjective. This is another important piece in the evaluation framework, although it is relatively time and resource intensive.

The approach taken by funding organizations Root Cause and New Profit, as well as "social return on investment" (SROI) mechanisms are commonly referenced evaluation models, particularly as they relate to social enterprise. These models use a mixture of program evaluation methods and fiscal health measures when evaluating organizations and programs. Outlined below are brief descriptions of these evaluation models.

Root Cause

The Root Cause How-To Guide claims, "What's needed is a customized, internally-driven performance measurement system that meets [the organization's] stakeholders' requirements while also empowering [the] organization to make strategic internal decisions and improvements."^{iv} The recommendation of the Root Cause guide is that organizations should track the information that they feel is most relevant to the mission and goals of their programs rather than accepting externally imposed goals. The model defines three types of indicators organizations should track: Organizational Health, Program Performance, and Social and Economic Impact.^v

New Profit

An interview with Jennifer Anderson, Director of Communications, on October 30th, 2009 revealed the process by which New Profit evaluates potential investments^{vi}. The new profit method consists of three phases: Pipeline, Screening, and Due Diligence. During the Pipeline phase, organizations submit Letters of Inquiry and other materials that include short-answer essays on the problem their organizations are trying to solve, the unique way in which their organization intends to solve this problem, the organization's past impacts, and its future projections. The initial applications also include information profiling the organization including information regarding growth strategy, their CEO, an organizational profile, and audited financial statements.

Applications are then ranked based on the following criteria: social entrepreneur, direct impact, widespread impact, organizational capacity for growth, and New Profit fit. The organizations that pass through the Pipeline round then progress to the Screening phase. This phase entails a more in depth review of organizations and includes meetings with entrepreneurs. Then top ranking organizations present their proposals to the New Profit Board of Directors. The Board then makes recommendations regarding the organizations that will pass to the final phase.

The final phase, Due Diligence, undertakes the most comprehensive evaluation of organizations and includes site visits, interviews with key stakeholders, thorough analysis of organizations' financials, and extensive interviews with the organizations' senior leadership. The final approval for investment is made by the New Profit Board of Directors.

Social Return on Investment

Social return on investment (SROI) is one of the most well known attempts at measuring social and economic value created by investments into an organization or program. Coined by San Francisco-based philanthropic fund, REDF (formerly the Roberts Enterprise Development Fund), SROI is an extended version of the traditional return on investment ratio, which quantifies the creation of economic value relative to initial investment. In contrast, SROI not only takes into account standard financial measures, but also considers ratios that gauge the social value resulting from an investment into an organization. Referenced as SROI, social value is considered the improvement of people's lives through the pursuit of socially desirable outcomes.

In 2001, REDF released its first guide for assessing SROI, termed the *SROI Methodology*. The guide outlined six factors that created the framework for SROI. These factors include the need for an organization to project future enterprise and social purpose value relative to initial investment and long-term debt. By estimating social purpose cash-flows, investors and organizations can take into account public cost savings when making an investment decision. In the absence of this measure, many investments would be held back for lack of financial viability. Accounting for both the economic and social sides allows a more holistic view of the possible gains to an investment and includes considerations not only on behalf of shareholders, but also on behalf of employees and the environment.^{vii}

Once widely recognized as an innovative and more comprehensive way to make investment decisions, the SROI measure was quickly adapted to meet the needs of various organizations among all sectors. It became common practice for social sector and non-profit organizations to develop a customized version of SROI that was used in conjunction with traditional financial measures such as net present value (NPV).^{viii}

What was first developed as a forecasting tool to press organizations to predict social value also became a tool for organizations to retrospectively evaluate actual outcomes that had already taken place.^{ix} Along with this new hybrid form of SROI came the broadening of the term to also

refer to the many stages within the investment timeline, from introductory steps of identifying scope and key stakeholders, to later stages of evidencing outcomes and reporting.

A frequent obstacle of utilizing the SROI approach is the large interpretative allowances used when quantifying social value. Ideally, in order for SROI to be a robust tool, social outcomes must be easily monetized and their correlation to economic drivers identified. However, many social outcomes are not easily quantified in financial terms making it difficult to assess social value creation in similar terms as economic value creation. This is particularly a problem when SROI is used in forecasting interventions that have little to no precedence or research to support its claims. As an evaluation tool, SROI also faces this problem since many social impacts do not manifest themselves for many years while other impacts have time horizons that surpass most assessments.

To combat the problem of quantifying social outcomes, many organizations have used rigorous methods for applying financial values to social and environmental impacts. Although this helps to develop a more systematic solution, it still does not address the need for a more standard approach that allows comparisons across industries and sectors.

Considering the limitations of the original SROI model, REDF released a follow-up report entitled *SROI Act II: A Call to Action for Next Generation SROI*, published in October 2009.^x The opening premise of this report is the recognition of the growing need for credible and consistent data collection by integrated systems, allowing analysis of both monetary and non-monetary standardized metrics.^{xi}

Cynthia Gair, Managing Director of Programs at REDF, uses the report to point to the areas where SROI falls short in robustness, such as its inability to consider many viewpoints and desires of an organization's stakeholders. This is akin to a private company's fiduciary responsibility to its board and shareholders, which often drives focus on specific financial metrics. To address this issue with SROI would require different metrics for different stakeholders. Once such metrics are created, a secondary hurdle is finding a transparent and credible integrated data system to house the information so that stakeholders can customize reliable and comparable data outputs. This system is crucial for organizations to accurately and consistently perform checks that help them move towards their goals and demonstrate success to outside investors.

Large venture philanthropy firms including Acumen Fund and Rockefeller Foundation frequently cite the need for trusted and accurate social impact metrics as one of the largest barriers to unleashing large pools of investment into the social sector.^{xii} With this comes the widespread understanding that there may never be a singular metric or quantifiable measure (such as NPV) which denotes whether to invest in an organization or not. Instead, the industry is moving towards relativism through newly developed systems of rankings and certifications.

A fundamental flaw encountered by several organizations is their inability to identify the types of data that should be collected. In discussion with Juma Ventures, a REDF portfolio company

which employs at-risk youth, Enterprise Director Jeronimo Martin addressed the organization's past inclination to collect data that was accessible and available in its first years of operation.^{xiii} Until recently, Juma tracked much of its success by the number of youth employed at one of its many concession stands within major sport stadiums throughout the U.S. However, after greater internal introspection, the organization realized its true aim was not to employ youth, but to ensure that program participants were completing secondary education and saving enough money for college. This slight change of focus and mission re-assessment largely altered the data that Juma began to collect and track.

The far-reaching implication of a minor adjustment in scope demonstrates the potential misinformation garnered from an SROI assessment when clear objections do not clearly preclude metric calculations. Specifically in response to the arbitrary nature of organizational-specific models for calculating SROI, several new frameworks have surfaced. One such framework receiving significant recent attention is IRIS (Impact and Investment Standards, www.iris-standards.org), which aims at constructing a base standard for evaluating social sector investments within several key industries. In conjunction with IRIS, the Rockefeller Foundation, B-Lab, PricewaterhouseCoopers, Deloitte, Skoll Foundation, Salesforce.com Foundation, and others have been developing a reporting and tracking system known as Pulse.^{xiv}

These tools will enable integration of output and outcome data through Performance Management Software, allowing for standard approaches to calculating SROI. However, both IRIS and Pulse are somewhat limited in design, focused on private investment rather than the nuances addressed with public funds. For example, in its original application, SROI often misrepresented results due to its narrow consideration of government savings when evaluating interventions. This myopic scope resulted in decisions that discouraged organizations that may have resulted in greater net social impact through promoting the use of government subsidies (e.g., food stamps). Again, this is an example of SROI's inability to encompass value creation from the perspective of multiple stakeholders.

Deficiencies with Current Evaluation

SROI and the other evaluation mechanisms described have pioneered the path for organizations to justify their social impact, but they fail to establish a rigorous and standard approach for investing public funds. A combination of fiscal and program evaluation is essential to the proper pre-investment analysis of social impact, but there are still other evaluation criteria that should be taken into consideration for direct government funding. Government funders will need to consider, in addition to fiscal and program evaluation, the implications for market effects, government budget, and overall societal impact. These government concerns are not taken into account in most current evaluation mechanisms reviewed.

As keepers of public money, and therefore the public trust, government must be particularly focused on making investments that promote net social gain, rather than simply gain for a particular group of stakeholders or specific savings for the government budget. The evaluation

methods described above are robust in their assessment of capacity and sustainability measures, as well as in their attempts to calculate social return. However, the mechanisms miss this key caution of government funding: ensuring that investments in social enterprise create net social good for society as a whole, and ensuring against investments that create loss. As a requirement, all government funding must hold to a consistent, analytically based, scientifically defensible framework for evaluating social impact. This gap in current evaluation mechanisms as described above led to the development of the investment tool described in this paper.

Social Enterprise and Economic Benefit

The creation of the Social Innovation Fund is one of many indicators that social enterprise is seen as an efficient and effective mechanism for addressing some of society's key challenges. In addition to ensuring that government funding is directed towards programs that result in a net social benefit, the tool we've created also assists investors in understanding the actual economic benefit of the proposed investment. Application of the tool results in calculation of monetary values that are, in fact, the social enterprise's potential contribution to the gross domestic product (GDP). This contribution to GDP is the economic benefit of the social enterprise. The tool allows discrete organizations to measure the economic benefit they create. However, widespread use of the tool can also help to make the case that social enterprise not only addresses social problems, but it can also contribute real economic benefit to the wider market.

Cost Benefit Analysis

The use of our tool is similar to a traditional cost benefit analysis. Essentially, cost-benefit analysis enables the evaluator to analyze the net benefit of a variety of choices. Cost-benefit analysis is often used in multi-criteria decision making, where the decision maker must weigh different, sometimes conflicting, criteria for investment. Utilizing cost-benefit analysis enables a decision maker to monetize outcomes of an alternative and compare those outcomes to the cost of the alternative, to determine which of a group of alternatives produces the most benefit.

The Aim of the Tool

The purpose of the Impact Assessment Tool is to provide a consistent framework for evaluating the impacts of an intervention. As described above, organizations often report their programmatic *outputs* – i.e. the number of individuals served, the number of volunteer hours worked. This is different from the actual impact that the intervention has on the individuals served, and in the larger sense, on society. The primary reason outputs are reported is because they are much easier to track than impacts. However, the tool described in this report intends to demonstrate that predicting and evaluating impacts can be straightforward with the right combination of data and critical thinking. Evaluating impacts also results in better decision making and consequently better impacts. Calculating net social benefit can be complicated. However, the tool attempts to show that it is less daunting than it might first appear. The tool also consolidates the information required to calculate this number for the most common interventions, providing a method as well as guidance in consistently deriving the impacts for an intervention.

The tool assumes that maximizing social impacts is equivalent to maximizing utility. Utility is the usefulness or satisfaction that a product or service has to an individual. The tool assumes that satisfaction to an individual “can be measured and then summed, each person being weighted equally, to calculate aggregate social welfare.”^{xv} Satisfaction can be approximated in terms of dollars. While the exact utility of each product to each person is unknown, “we may be fairly sure that their individual marginal utilities from particular goods are roughly proportional to the prices of the goods. The reason for this is that people will change spending patterns whenever relative prices and marginal utilities are not in balance.”^{xvi}

By establishing a system to select proposals made by social enterprises, based on a measurement of utility, the tool aims to achieve Pareto efficiency, specifically Pareto optimum¹, the “state of affairs such that no one can be made better off without making someone else worse off”.^{xvii}

The key to calculating impacts is to disaggregate the outcomes. By locating standardized and accepted measures of the dollar value of various interventions (often averages gleaned from academic publications or statistical reports), our tool totals the impacts using a common unit of measurement, the dollar. This allows for comparison of different interventions and the costs of providing the interventions. Consequently, another aim of the tool is to ensure that an intervention truly has a positive social benefit and that an intervention is not inadvertently costing society more than the value of its benefits. This is valuable information to ensure that there is a positive return on investment of public funds.

Finally, the tool promotes the collection of economic impact data. The tool demonstrates the usefulness of this data for the government and for use by social enterprises in demonstrating

¹ A detailed description of Pareto efficiency and Pareto optimum can be found in Richard O. Zerbe Jr. and Allen S. Bellas's, [A Primer for Benefit-Cost Analysis](#).

the effectiveness of their programs. Our research suggests that collecting this data and demonstrating the net social gains of a program is useful for social enterprises to attract funding and investment from other sources.

Achieving a Net Social Gain

As discussed above, this report defines social enterprise as “the practice of responding to market failures with transformative financially sustainable innovations aimed at solving social problems.” This definition leads to conclusions about the types of enterprises that should be considered for investment with government funds. In order to be a viable contender for government investment, a social enterprise must include two essential components:

1. Be financially sustainable and have trustworthy projections; and
2. Have a proposal that achieves a net social gain, due to improved productivity or response to a market failure.

The first component relies on a sound understanding of an organization’s internal capacity, financial information and operational history.² The second component is what our tool attempts to calculate.

The key aim of the tool is to allow the government to gain the highest possible return on their investment. In principal, this is represented by the following calculation:

$$\text{Net Social Gain} = \text{Social Gain} - \text{Contributed Income}$$

If Net Social Gain is positive, then the investment is viable and should be considered.

By calculating this value for every proposed investment in a social enterprise, the government or foundation can directly compare proposals. If the result is positive, the proposal is likely to be better than the status quo, although not guaranteed. The funder also has a built-in mechanism to calculate opportunity cost, because the opportunity cost is the net social gain of the other competing proposals. Assuming that there are more requests for funds than funds available, the funder can select the mix of proposals that achieves the highest net social gain. By doing this, the funder will achieve Pareto Optimal, at least in terms of the fund. By adding the net social gains of each proposal, the funder can also demonstrate in dollars the total social benefit their investment has provided. The government will have limited funds, and it is their duty to maximize social gains. This equation allows the government funder to maximize social gain by selecting the combination of proposals that results in the greatest social gain for the available set of funds.

² Mechanisms for evaluating organization capacity are not discussed in detail in this report.

Key Elements of the Tool

The tool attempts to summarize a specific intervention's key costs and benefits, providing simple methods of calculating the gross positive and negative impacts of these interventions. The user then subtracts the costs of running the program from the gross benefits of the program to find the net benefit. The schematic of the tool is below.

Table 1. Impact Assessment Tool

Intervention:			
Category:			
Impact Area	Individual Beneficiaries	Government Budget	Society
Compensation			
Market Value of Provided Product or Service			
Net Market Effects			
Government Programs			
Gross Value			
Program Costs			
Net Value			

The tool also shows the different impacts on Individual Beneficiaries, the Government Budget, and Society. Each column is calculated from these three different perspectives and provides insight on the gains, losses and transfers caused by an impact. This will also reveal any negative extreme values even if the net social gain is positive. For example, a program may have a negative impact on Individual Beneficiaries even though it has a positive net social impact. These three columns are summed downwards, but not across. The Society column is not the sum of the Individual Beneficiaries and Government Budget columns, though it can incorporate values from each. Instead, the perspective of each column is considered separately. Since impacts are summed down columns only, this means impacts can be double-listed across, but must never be double-counted down. There are many circumstances where an impact could be counted in more than one row, so particular effort must be made to ensure that the impact is summed only once.

Figure 3. Column Headings

Individual Beneficiaries	Government Budget	Society
---------------------------------	--------------------------	----------------

It is not necessary to complete every cell, only those that are relevant for the specific intervention. The tool provides a structured thought process to consider the impacts of common interventions. The effect of an intervention in each row should be carefully considered to identify impacts that may not have otherwise been identified. However, it is legitimate and entirely possible to have no impact listed in a row, depending on the intervention.

The impacts identified in the tool are also not exhaustive or exclusive. If evidence exists for the effect of an intervention, then that should also be included as an impact, providing this does not lead to double-counting.

Calculating Gross Benefits

The tool provides specific calculations tailored for each intervention sector, but there are common elements. The four most prominent impacts are Market Value of Provided Product or Service, Net Market Effects, Compensation, and Government Programs. Most of the variations of the tool include these key elements as a base. The tool also includes known calculations for specific impacts in addition to the base elements.

Figure 4. A Schematic of the Impact Assessment Tool

Impact Area	Individual Beneficiaries	Government Budget	Society
Compensation			
Market Value of Provided Product or Service			
Net Market Effects			
Government Programs			

The base elements are described in detail below. This is followed by a description of how these elements are applied for each of the four funding sectors, including their relevant impact calculations. At times, these calculations cross over with the base elements and, again, it is critical that effort is made not to double-count impacts within any single column.

Market Value of Provided Product or Service

The Market Value of a provided product or service row is calculated by multiplying the market price of the product or services received by each beneficiary by the number of beneficiaries. This value is the utilitarian benefit received by the beneficiary, the value that the service has to the person receiving the service. The cost of the product or service to the social enterprise is included later, under program costs in the Society column. The Net Social Benefit in the Society column will then show the efficiency of the social enterprise in providing the service. Similarly, any contribution made by the beneficiary is included under program costs in the Individual Beneficiary column.

Net Market Effect

As discussed above, social enterprises inherently operate in a market. By operating in a market, a social enterprise affects the market. This impact can be both positive and negative.

Addressing a Market Failure

A key mechanism for a social enterprise to achieve a social good is to address a market failure. A market failure is “an outcome deriving from the self-interested behavior of individuals in the context of free trade, in which economic efficiency does not result. Market failures provide a ubiquitous argument for intervention of some form or other.”^{xviii}

Examples of market failure³ include:

- Information asymmetry, including moral hazard and adverse selection;
- Negative externalities;
- Non-competitive markets, including natural monopolies and oligopolies; and
- Public goods (products that are non-rivalrous/non-excludable, such as air).^{xix}

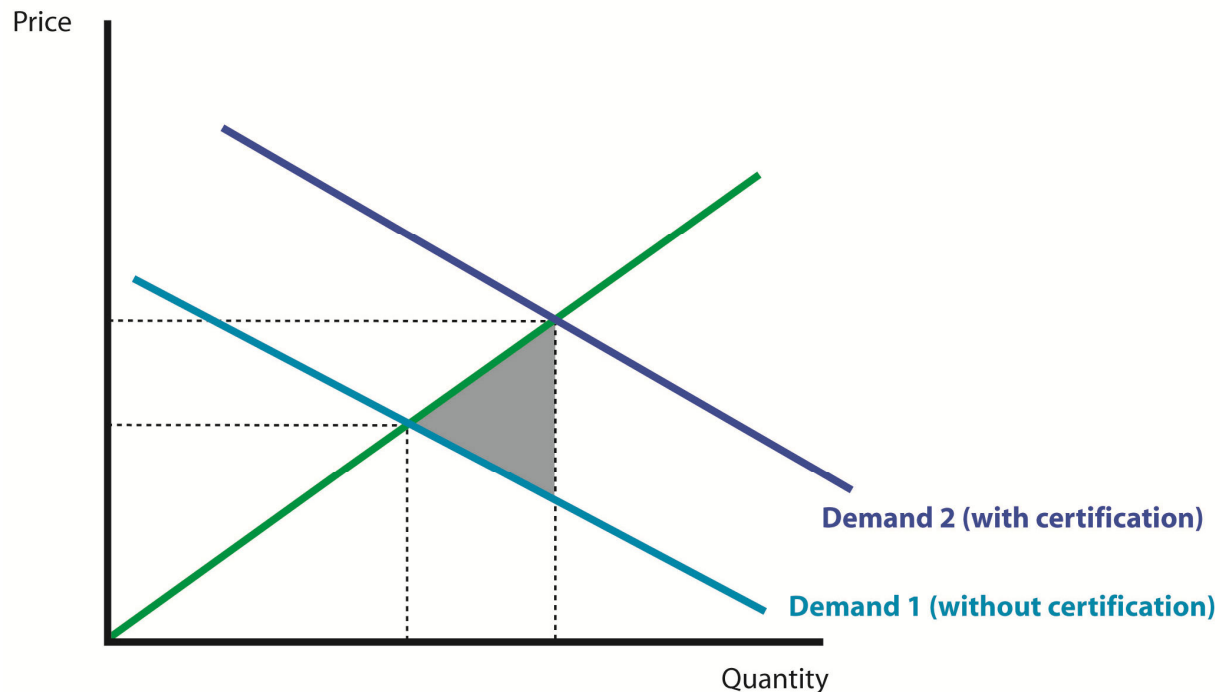
A social enterprise that addresses a market failure could value its net social good in part by calculating the amount of deadweight loss it has addressed. Deadweight loss is the value of the inefficiency in the market. It is the difference between the current market equilibrium and a proposed Pareto efficient market equilibrium. The deadweight loss represents unrealized utility.

A social enterprise that addresses an information asymmetry is a common example. Suppose there is a social enterprise that certifies other businesses as having good environmental practices, like fair-trade certification. That business would be addressing a deadweight loss due to the consumer’s lack of information about a product. Incidentally, this deadweight loss also represents the negative externality of environment degradation. If consumers are willing to pay

³ For more information Market Failure, see Graham Bannock, R. E. Baxter, and Evan Davis’s [Dictionary of Economics](#).

more now that they have this information, then the market will re-price itself to incorporate the cost of that negative externality.

Figure 5. Economic Demand for Certified Environmental Products



Demand 1 represents the price consumers are willing to pay without the information. Demand 2 represents the price with the information. The shaded triangle represents the dead weight loss in the market, and a gain in economic productivity as a result of the intervention of the social enterprise.

It is a common argument that economic data on this level is not easily available. Organizations the size of most social enterprises may not have the capacity to calculate demand equations. Fortunately, this is not necessary. In this example, the organization can calculate the deadweight loss it has addressed. First, the organization must construct a logic model, demonstrating the connection between its efforts and a theoretical market failure. Second, if certified products sell at a higher price than non-certified products, the social enterprise multiplies the difference in price between certified and non-certified products by the number of certified products sold. The social enterprise may not know the full scale of the dead weight loss but it can easily calculate how much it is responsible for resolving.

The value of the addressed deadweight loss is added as a positive impact in the Net Market Effects row in the Society column. It is also added to the Individual Beneficiaries column, since beneficiaries will either have the utilitarian benefit of consuming a preferred product or be able

to purchase the product at a cheaper price, depending on the form of the intervention. In both cases, the Individual beneficiaries receive a surplus.

Negative Market Impacts

As discussed above, it is not guaranteed that the effect of social enterprise is always positive. The negative effects of a social enterprise on the market must also be taken into account. A key example of this is when a social enterprise competes directly against private enterprise to provide the same service when there is no market failure. If a social enterprise has a business model that allows it to provide a service more efficiently, then it will simply be competitive in the market place. As with the introduction of any new business, the market will find a new equilibrium between price and quantity taking account of the new player, and there is no negative market impact. If a social enterprise provides a service at the market price, but requires external support to achieve its social aims then there is negative market impact.

In this circumstance, assessing opportunity cost is critical. The social enterprise must still demonstrate that it achieves its social goals more efficiently than government, free enterprise or any other social enterprise. If the social enterprise uses government funding or any other external support to provide a service below market value when there is no market failure, then a negative market effect will be created. The government would be subsidizing the product or service. This effect is calculated by taking the difference between the market value of the product or service and multiplying it by the number of products or services provided.

In this circumstance, the negative market impact is placed as a negative figure in the Society column of the Net Market Effects row. But it is also included as a positive figure in the Individual Beneficiaries column of the Net Market Effects row. This is because the beneficiaries gain a surplus from receiving the product or service at below market cost.

Secondary Market Effects

Secondary market effects occur when the consumption of one product affects the consumption of another product. Secondary market effects must also be considered in the Net Market Effects row. If a causal link can be demonstrated that the increased consumption of one product leads to the decreased consumption of another product then the value of the decreased consumption must be included as a negative in the Net Market Effects row under Society. This must also be included under Individual Beneficiaries if they are the consumers. Consumption of the first product will be included under market value of provided product or service, but only the difference between consumption in the primary and secondary markets will count towards net social benefit.

Similarly, if increased consumption of a product leads to *increased* consumption of another product, then the value of the increased consumption is included as a positive in the net market effects column under Society, and under Individual Beneficiaries if they are the consumers.

Compensation

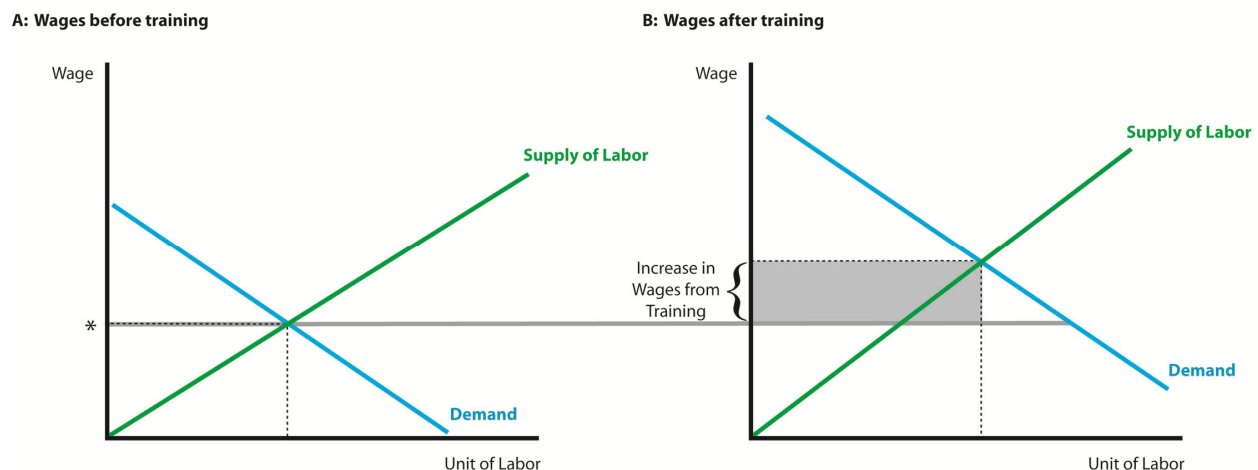
Market failure is a key way to demonstrate net economic benefit. However, it relies on the product or service being produced also being the source of the benefit. Often social enterprises will operate within a normal competitive market with their social benefit coming from other parts of their operation.

Providing employment is often used in social enterprise, yet this must be handled very carefully. It is not enough for a social enterprise to suggest that, by creating employment, it creates an economic benefit. In a market of full employment, this is simply a transfer of an employee and not a net economic benefit. From the federal government perspective, there is no net social gain. However, when a recessionary gap exists in the market, government policies to create demand also often create jobs. These policies include increased government spending. They do not include training and placement programs because those alone do not create demand, and therefore do not create jobs.^{xx}

However, if a productivity gap exists in the market and the social enterprise addresses it in some way, there is a net economic benefit. In an economy where there is a productivity gap due to unemployment, this could include employment.^{xxi} In this case the social enterprise must also address why funding should be provided to a social enterprise rather than to a commercial enterprise. The social enterprise must demonstrate that government funding of the enterprise will contribute to GDP in greater amounts than other government spending would.

There is another way that a social enterprise can demonstrate economic and social gains through employment. By improving the productivity of an individual worker, a social enterprise contributes to economic productivity by contributing to the value of the increased wage that worker can now expect.

Figure 6. Wage Effect from Training



In Figure 6 above, the graph on the left represents a worker before training and developing work experience. The graph on the right shows the wage the same worker can expect after training. The gray rectangle shows the economic gains the social enterprise has provided per worker. In this way, social enterprises can provide direct economic benefit by providing work experience and stability to itinerate or otherwise untrained workers.

To calculate the economic benefit, the difference is found between the average pre-program wage of participants and the predicted post-program wage of participants. This is then multiplied by the number of participants in the program. This number is included in both the Individual Beneficiaries column and the Society column.

Government Programs

By changing individual beneficiaries' circumstances, social enterprises can affect the eligibility of beneficiaries for government assistance programs. If the social enterprise increases the wage of the beneficiary over the poverty line, then the beneficiary is likely to lose welfare, Medicaid, and other benefits. Additionally, the beneficiary may also be required to pay more tax. These amounts are counted as a loss to the Individual Beneficiary in each respective row. However, they are also counted as savings in the Government Budget. The result is effectively a transfer, without net social gain. It is possible for a social enterprise to create a net loss for an individual. Also, it is possible for a program to be seen as more viable to the government, because of the savings it produces.

In addition to the changes in government programs delivered to the beneficiaries, the government also makes savings on administration of these programs. Benefits may be a simple transfer between the government and the beneficiary, but there is also a cost to government for administering this transfer. These are counted as a saving in the Government Budget and to society, since there is no associated transfer.

Due to significant differences in welfare programs and thresholds between states, calculating costs and benefits is complicated. Programs should attempt to calculate the average welfare received and tax paid by their participants before and after their program. In most cases this is straightforward data to collect through a random sample of clients.

Program Costs

Once gross social benefit has been calculated, program costs should be subtracted to find the net social benefit. Any contribution or fees paid to the program by beneficiaries should be included in the Individual Beneficiaries column, calculated by multiplying the contribution per person by the projected number of beneficiaries.

The government contribution to the program is included in the Government Budget column. In the case of the SIF, this is the amount that the program is requesting from the CNCS, plus any other sources of government revenue.

The total cost of the program to the social enterprise is placed in the Society column. This is the total cost of running the program, including administrative and stock costs, minus any revenue made by the program.

Discounting and Time Horizon Determination

To appropriately capture the time value of investments, funders should calculate the net present value of interventions. To do this, the funder should select a discount rate and guidelines for setting an impact horizon time, which are then applied consistently to all interventions.

Due to the time value of money, an impact is worth more now than it is in the future. A program must demonstrate not only that it provides a better return than the alternatives, but that it also provides a better return than the market interest rate. To do this, the Net Present Value of all impacts should be calculated. The Present value (PV) of an investment is calculated by taking the future value (FV) and dividing it by the sum of one plus the interest rate (i) raised to a power equal to the number of compounding periods (N).^{xxii}

$$PV = FV \div (1 + i)^N$$

CNCS should select an appropriate value for i, in consultation with their financial officers and the U.S. Department of Treasury. CNCS should also select a consistent value for N and apply it equally to all initiatives, to allow a direct comparison of projects.

Impact Area: Reduction in Poverty/Increase in Economic Opportunity

The official poverty measure varies by family size but is calculated using a standardized method across the continental U.S. The amount is calculated “based on research indicating that families spent about one-third of their incomes on food – the official poverty level was set by multiplying food costs by three.”^{xxiii} According to these guidelines, the poverty level in 2008 was \$21,200 a year for a family of four and \$17,600 for a family of three.^{xxiv} Its main purpose is determining who qualifies for forms of welfare. Although this threshold provides a standard definition of poverty it does not address its cause.

Social enterprises can provide services to support those in poverty. However, to address the root causes of poverty, it is more effective to consider interventions that increase economic opportunity. Ben Bernanke, current Chairman of the U.S. Federal Reserve, addressed the issue in his speech to the National Economists Club on October 11, 2005. Bernanke stated that “economic opportunity exists when every person has a realistic chance to improve his or her economic condition through hard work, saving, entrepreneurship, and other productive activities.”^{xxv} As discussed above, job creation programs are unlikely to create economic opportunity. However, job training programs managed by social enterprises do have the potential to create or enhance economic opportunity.

Table 2. The Impact Assessment Tool for Economic Opportunity

Intervention:			
Category: Reduction in Poverty and/or Increase in Economic Opportunity			
Impact Area	Individual Beneficiaries	Government Budget	Society
Compensation			
Market Value of Provided Product or Service			
Net Market Effects			
Government Programs			
<i>Tax Receipts</i>			
<i>Food Stamps</i>			
<i>Medicaid</i>			
Gross Value			
Program Costs			
Net Value			

Compensation⁴

The process of calculating a program's impact on participant earnings is determining by subtracting pre-program wages and benefits from post-program wages and benefits. The entire calculation is represented below, where n is the number of participants.

$$[(\text{Post-Program Wages} + \text{Value of Post Program Benefits Package}) - (\text{Pre-Program Wages and Benefits})] \times (n_{\text{successful}})$$

An increase in earnings is a benefit that accrues directly to Individual Beneficiaries and Society. Government Budget amounts should remain neutral in this row because the increased individual earnings for participants do not lead to a direct benefit for the government.

⁴ For more discussion on calculating compensation, market value of a provided product or service, and net market effects, see the section "Key elements of the tool."

Market Value of Provided Products and Services

The market value of provided products and services is calculated by multiplying the market value of provided products and services by the number of program participants. This calculation is demonstrated below.

$$\text{Market Value of Provided Products and Services} \times (n)$$

Net Market Effects

As discussed previously, the outcome of programs may influence market equilibriums. Both the positive effect of addressing market failures and the negative effect of creating inefficiencies should be included here. In particular, the impact of displacing commercial ventures should be considered. For example, a social enterprise may run a training program in competition with commercial training programs or provide financial services for free in direct competition with for profit financial services. These effects should be accounted for accordingly. Particular values for these market effects are determined based on the nature of the intervention's impact.

$$\text{Positive Market Effects} - \text{Negative Market Effects}$$

Government Programs

Taxes

An increase in a beneficiary's income results in a corresponding increase in the tax that they are required to pay. The income taxes paid are logged as a loss to the participants and a gain to the Government Budget. The effect on Individual Beneficiaries and Government Budget can be calculated based on the average projected wage of participants multiplied by the applicable income tax multiplied by the number of successful program graduates. The income tax rates should reflect the IRS tax schedule for a single person, and are reflected in Table 1.^{xxvi}

Table 3. Federal Income Tax rates, 2009.

Wage Range	Federal Income Tax Rate
\$0–\$7,825	10%
\$7,825–\$31,850	15%
\$31,850–\$77,100	25%

The calculation of this impact is described below.

$$\Delta \text{ wage} \times \text{applicable tax rate} \times (n_{\text{successful}})$$

As described above, n= number of participants.

Welfare, Food Stamps, and Medicaid

An increase in a beneficiary's income may lead to a loss of government benefits. Participants may lose access to government subsidized welfare such as food stamps and Medicaid, because their income now exceeds minimum eligibility requirements. The change in eligibility is a loss to Individual Beneficiaries, because they are now receiving fewer benefits. However, it is a gain to the Government Budget.^{xxvii} This change is calculated using the formula below.

Average Level of Program Disqualification x Cost of Program per Person x ($n_{\text{successful}}$)

Increases in tax payments and reductions in welfare, food stamps, and Medicaid are treated as neither a benefit nor a cost to society as a whole but, rather, as simply income transferred from the Individual Beneficiary to the Government.^{xxviii} It is not seen as a societal gain because the cost savings of government will be equal to the losses to Individual Beneficiaries, resulting in a zero net impact to society. However, there is an administrative cost to Government for transferring the benefit from the tax payer to the beneficiary. If known, this should be accounted for as a gain for the Government Budget and a gain for Society.

Cost of Programs

Including the cost of the program will require information on the administrative cost of the programs and direct program costs as well as the current cost to government through grants. This information should be provided by the organization submitting their request for funding. The administrative cost must include full operating and employee costs for the particular program. The income of employees to run the program is accounted for here and not under Compensation. Similarly, the value of volunteer workers is accounted for by a corresponding decrease in providing the service. The value of a volunteer's work should not be included under compensation or as any other impact.

CASE STUDY: TWIN CITIES RISE!

Background and Mission

Twin Cities Rise!, founded in 1994, is an organization located in Minneapolis, MN dedicated to increasing economic opportunity in the Minneapolis and St. Paul area. The mission of this organization is to provide employers with skilled workers, primarily men from communities of color in the Twin Cities area, by training underemployed and unemployed adults for skilled jobs that pay a living wage of at least \$20,000 annually. Twin Cities Rise! engages with employers and remains motivated to produce the highest quality graduates, people employers willingly hire.⁵

Core Program

Twin Cities Rise! defines the impact of their core program as preparing people for fulltime employment with the potential for job improvement and lifelong career advancement. The program focuses on improving work skills, personal empowerment, and coaching. It includes:

- Classroom training
- One-on-one coaching
- Supportive services as needed
- Outside training

In 2008, 640 individuals participated in the Core Program. Of these participants 60 were placed in full time employment with an average wage of \$24,744 plus benefits, up from the average preprogram wage of \$4,276. The cost of administering this program for all 640 participants was \$1,783,615 or approximately \$2,787 per person.

⁵ More information about Twin Cities Rise! can be found on the organization's website:
<http://www.twincitiesrise.org/>

Table 4. Application of the tool for Twin Cities Rise!

Intervention: Career and Skills Training, Twin Cities Rise!			
Category: Reduction in Poverty and/or Increase in Economic Opportunity			
Impact Area	Individual Beneficiaries	Government Budget	Society
Compensation	\$ 2,883,120		\$ 2,883,120
Market Value of Provided Product or Service			
Net Market Effects			
Government Programs			
<i>Tax Receipts</i>	\$ (173,565)	\$ 173,565	
<i>Food Stamps</i>	\$(133,920)	\$133,920	
<i>Medicaid</i>	\$(1,653,240)	\$1,653,240	
Gross Value	\$922,395	\$1,960,725	\$ 2,883,120
Program Costs		\$ 100,000	\$ 1,783,615
Net Value	\$15,373per/person	\$1,860,725	\$ 1,099,505

Calculations

The information used to populate the application of the Impact Assessment Tool was reported by Twin Cities Rise! in the organization's 2008 Form 990. This is actual program data from their operations in 2008. True use of the tool requires the organization to make projections regarding the impact their program will have in the future. The following sections specify the data that was used to arrive at the figure and its source if other than the 2008 Form 990.

For the purpose of this case study, successful program completion requires the placement in a job with an income of \$20,000+. Thus, the 60 participants that were placed in jobs with an average wage of \$24,774 plus benefits will be used when the number of successful graduates of the program is needed as a multiplier.

Job placement is included in this case study because it is required to graduate from the program. However, it is graduation that counts towards net benefit. Programs are not required to track or estimate the level or work placement, only the capacity that they have created in the economy.

Compensation: $(\$24,774 + \$27,554 - \$4,276) \times 60 = \$2,883,120$

This calculation used the preprogram wages (\$4,276) and the post program wages (\$24,774) reported by Twin Cities Rise! It was also reported that, on average, participants placed in jobs also received benefits. The value of these benefits is estimated to be at least the value of Medicaid, so the average government cost of Medicaid per person in Minnesota in 2008 (\$27,554) was used to value the benefits.⁶ Twin cities Rise! also reported the total number of successful job placements among graduates (60). This number was used as a multiplier of individual benefits.

Market Value of Provided Products and Services: \$0

The values of this row are null because the benefits of this program accrue to increases in compensation.

Net Market Effects: n/a

Twin Cities Rise! is not in competition with a commercial provider. Therefore, there are no Net Market Effects.

Tax Receipts: $[(\$3,549 \times 0.1) + (\$16,919 \times 0.15)] \times 60 = \$173,565$

This calculation multiplied the change in wage by the applicable federal income tax rates. The taxes for the lowest income bracket (10%) only apply to the additional \$3,549 earned because it can be assumed that taxes were being paid on the average initial wages (\$4,276). This value was then multiplied by the 60 successful graduates.

Food Stamps: $\$186 \times 12 \times 60 = \$133,920$

This calculation used the average monthly food stamps of preprogram individuals in Minnesota (\$186) multiplied by 12 months then multiplied by the 60 successful graduates of the program. In this case, increased income was a disqualifier for all program graduates.

Medicaid: $\$27,554 \times 60 = \$1,653,240$

This calculation used the average annual cost of Medicaid (\$27,554) per person in Minnesota multiplied by the 60 successful graduates of the program. In this case, increased income was a disqualifier for all program graduates.

⁶ All cost data was taken from the Minnesota Department of Human Services' website:
<http://www.dhs.state.mn.us/main/>

Program Costs: \$1,738,615

Aggregated program costs were reported on TCR!'s 2008 form 990. This is the cost of administering the program to all 640 participants. The tool includes line items for disaggregated costs, but in the absence of this type of cost information it is acceptable to use aggregate costs. If the disaggregated costs were used, total program costs would be found by adding all individual costs.

Government Contribution: \$100,000

Self-reported by TCR! on their 2008 form 990, this amount is equivalent to the total government funding contributed to the organization.

Entering these costs into the Impact Assessment Tool indicates that the programs of Twin Cities Rise! realize over \$1 million in net benefits to society.

Impact Area: Child and Youth Development

Our definition of child and youth development is derived from Karen Pittman who, in a report from the Center for Youth Development (CYD), defines youth development as:

"...the ongoing growth process in which all youth are engaged in attempting to (1) meet their basic personal and social needs to be safe, feel cared for, be valued, be useful, and be spiritually grounded, and (2) to build skills and competencies that allow them to function and contribute in their daily lives."^{xxix}

While specific terminology may differ, CYD lists among all youth development programming the following common desired outcomes, under two main categories:^{xxx}

Areas of Identity

- A sense of safety and structure
- High self-worth and self-esteem
- Feeling of mastery and future
- Belonging and membership
- Perception of responsibility and autonomy
- A sense of self-awareness and spirituality

Areas of Ability

- Physical Health
- Mental Health
- Intellectual Health
- Employability (skills and training)
- Civic and social involvement

In addition to sharing outcomes, youth development programs also share a common classification by intervention type and/or output. A survey of programs across literature identifies four broad categories: (1) education, (2) health, (3) employment & training and (4) juvenile justice.^{xxxi} These categories guided us in determining impact indicators for child and youth development.

The overarching assumption in determining impact indicators for this category borrows from the CYD report that assumes a well-developed young person will *at least* receive a high school diploma, and subsequently become a productive and responsible member of society who will earn wages throughout their working life.^{xxxii} We chose impact indicators that carried significant barriers to entry into the labor market for young people. Therefore, in our tool, impact indicators of child and youth development interventions are measured against their effect on the overall, long-term productivity of beneficiaries.⁷

⁷ Health encompasses many subcategories such as overall physical and mental wellbeing. These sub-indicators were not included in the Child and Youth Development Matrix because of significant overlap in impact measurement with our Health Matrix. We did, however, include reproductive health and substance abuse prevention targeted towards youth. One other indicator excluded from the Child and Youth Development Matrix is involvement in pro-social activities (which include participation in the arts, sports and religious activities) and civic engagement. These were not included as separate indicators because, typically, their major measurable outcomes are increased probability of high school graduation, and decreased probability of engaging in risky behaviors such

Table 5. Impact Assessment tool for Child and Youth Development

Intervention:			
Category: Child and Youth Development			
Impact Area	Individual Beneficiaries	Government Budget	Society
Compensation			
Market Value of Provided Product or Service			
Net Market Effects			
Government Programs			
<i>Tax Receipts</i>			
<i>Food Stamps</i>			
<i>Medicaid</i>			
<i>Judiciary costs</i>			
Gross Value			
Program Costs			
Net Value			

Impact Indicators and Calculations

The basic model for the Child and Youth Development matrix estimates a program output to affect the beneficiary's productivity usually through a change in expected wage and/or a change in expected educational attainment. The effect on Government Budget then accounts for changes in government costs and welfare based on a change in earnings. Changes in welfare, food stamps and Medicaid are based on the predicted wages of youth. The effect on society reflects either the sum of the benefits to beneficiaries and the government or, where research indicated, a separate value.

For Child and Youth Development, impacts on Government Programs, Market Value of Provided Products or Services, and Taxes are calculated as discussed earlier in this report.

as substance abuse.⁷ Establishing causality for these indicators is complex, thus we classified their outcomes as indirect or unexpected.

Increase in High School Graduation Rates

An increase in high school graduation rates was considered an important impact because of the assumption that receiving a high school diploma is an indicator of a well- developed young person. Receipt of a high school diploma also represents the pathway to becoming a productive member of society. Additionally, one can assume that high school graduation is a common desired outcome for any youth intervention. The 2006 US Census Bureau estimates the average annual earnings for workers with a high school diploma at \$26,933, and \$17,299 for those without.^{xxxiii}

Compensation

The change in compensation for a program beneficiary is calculated at \$9,634, which is the difference in expected annual earnings. The calculation for an intervention then, is represented below with n=number of participants.

$$\$9,364 \times (n_{\text{successful}})$$

Government Programs

Change in government programs is calculated by multiplying the change in wage by the appropriate tax rate by the number of program participants, as shown below.

$$\$9,364 \times (n) \times \text{tax rate}$$

Societal Benefit

The CYD report estimates that over 40 years of employment, a worker will contribute 60% of lifetime earnings to consumer spending, which is a societal benefit, whose calculation is shown below.

$$\$9,364 \times 0.6 \times (n)$$

Reduction in STD Contraction

Out of any other population group, teenagers in the US are at highest risk for STD contraction because they are more likely to engage in risky behaviors. According to the American Social Health Association, by age 24 one in three people will have contracted an STD.^{xxxiv}

The Centers for Disease Control and Prevention (CDC) indicate chlamydia and gonorrhea among the most common curable STDs in adolescents. In addition to HIV, both diseases impact young females the most out of any group.^{xxxv} To measure impacts for STD contractions among youth we used Chesson et al's updated version of the 1992 CDC model of formulas used to estimate the economic benefits of STD prevention, presented in Appendix 3. The updated model

calculates for direct medical costs by gender associated with treatment for the most common STDs, along with the indirect costs by gender associated with prevention. Prevention costs consider a savings in the associated costs of transmission to a heterosexual partner. Formulas also took into account the sequelae⁸ costs averted by treatment of people with STDs and lost productivity costs.⁹ Lost productivity costs for each STD can be found in the attached appendix. Direct medical costs were attributed as a change in market value to the beneficiaries based on the assumption that if a young person is prevented from contracting an STD, the value of the intervention would be the equivalent value of saved medical costs.^{xxxvi}

Because the effects on males and females are so disparate for chlamydia and gonorrhea, calculating a net social value here should include separate totals by gender. According to the research, however, both direct and indirect costs for HIV are the same by gender.

Compensation

Changes to compensation can be reflected in lost productivity as a result of the STD, as calculated below.

$$\text{lost productivity cost} \times (n_{\text{female}}) + \text{lost productivity cost} \times (n_{\text{male}})$$

Market value

In this case, the market value of the product or service received is represented by the direct medical costs for addressing the STD.

$$\text{direct medical costs} \times (n_{\text{female}}) + \text{direct medical cost} \times (n_{\text{male}})$$

Reduction in Teenage Pregnancy

Teenage pregnancy has traditionally been associated with carrying very high socioeconomic costs, among which include diminished educational attainment and expected wage, along with an increased probability that offspring will become incarcerated at some point during total lifespan.

More recent research completed by Hoffman draws counter-intuitive conclusions on the economic impact of teenage pregnancy. Hoffman finds that delaying teenage pregnancy to 20 or 21 years old actually increases expense in the Government Budget, which means that impacts differ vastly by age group with teen mothers. His research suggests that:

⁸ Meaning diseases that are contracted as a result of a previous disease. For example, pneumonia is a sequelae of HIV/AIDS.

⁹ See Appendix 3 for lost productivity costs

- On average, teenage mothers who give birth at 18 or 19 experience a cumulative loss in wage over the first 15 years of childbirth than if they were to delay childbirth to 21.
- Teenage mothers who give birth at 17 or younger receive \$5,100 less in welfare, 1.1 additional years in food stamps receipts and 3 months additional housing assistance than if they were to delay first childbirth to 21.^{xxxvii} This is because teen mothers younger than age 18 are typically still dependent on their parents or other families.
- Those who gave birth to their first child at 17 or younger experience cumulative wage increases over the first 15 years of childbirth, while teen mothers 18 or 19 experience losses were they to delay first childbirth to 20 or 21.

Calculating net social impact here should include separate totals by age group.

Compensation

The calculation considers the number of program beneficiaries by age group, as shown below.

$$\Delta \text{ wage} \times (n_{17 \text{ and under}}) + \Delta \text{ wage} (n_{18-19})$$

Government Programs

$$\text{Food stamps: } 1.1 \times (\text{cost of food stamps}) \times (n_{\text{successful}})$$

$$\text{Welfare: } \$5,100 \times (n_{17 \text{ and under}})$$

Juvenile Criminal Activity

Juvenile criminal activity is defined here as any criminal act committed by someone under the age of 18. As a whole, crime carries extremely high social costs per offender. The National Center on Addiction and Substance Abuse (CASA) states that the national cost of incarcerating one juvenile per year is \$43,000, while the court costs associated with juvenile arrests is \$7,579.^{xxxviii} Impacts on Government Budget for this section of the matrix do not account for costs associated with crimes committed without arrest; as such data is unavailable for juvenile justice. Juvenile justice costs are separated in the matrix by substance-involved crime and non-substance involved crime. According to a CASA report, 78.4% of juvenile offenses are linked with substance abuse. For every substance-abusing young person prevented from dropping out of high school and becoming an adult offender society saves \$1.7 million (taking the conservative estimate), while costs to society for a non-substance linked juvenile offender are \$15,000 (taking the conservative estimate) for an average of two crimes per year.^{xxxix} The change in earnings for the beneficiary of a juvenile delinquency intervention is calculated in the tool by multiplying the increase in expected wage from a high school diploma by the probability that a juvenile offender will stay enrolled in school – a probability that CASA estimates at 8%.^{xl}

Compensation

The calculation for compensation considers the increased wages realized by a young person who completes high school, as well as the probability that the offender will stay in school.

$$\$9,364 \times (n) \times 0.08$$

In addition to changes in the Government Budget as a result of a change in wage, reducing juvenile criminal activity incurs additional judiciary costs.

Judiciary Costs

$$\text{All juvenile crime: } \$43,000/\text{year} \times (n) + \$7,579 \times (n)$$

$$\text{Substance-involved crime: } \$43,000/\text{year} \times (n) + \$4,149 (n) + \$2,121 (n)$$

Society

$$\text{All juvenile crime: } \$15,000/\text{year}/2 \text{ crimes}$$

$$\text{Substance-involved crime: } \$1.7 \text{ million } (n_{\text{successful}})$$

Reduction in Substance Abuse

Use of illicit drugs and alcohol is highly prevalent among teens. According to a US Department of Justice survey of high school seniors on drug use within the last 12 months, 65% reported alcohol use, 32% reported marijuana use, while a combined total of 44% reported use of other illicit drugs such as opiates, tranquilizers, stimulants and cocaine.^{xli}

In the Impact Assessment Tool, impacts on beneficiaries of a substance abuse intervention are calculated at 0 because there is no conclusive evidence on the correlation between adolescent substance abuse and productivity. A 2008 study on how drugs affect education reveals that, after controlling for endogeneity, there is no statistically significant correlation between substance abuse and the probability of getting a high school diploma. The authors refute earlier studies that determined a probability value without controlling for endogeneity.^{xlii} Research actually points to an inverse relationship between substance abuse and dropping out of high school. According to an American Journal of Public Health article, high school dropouts are as much as 6.4 times more likely to abuse drugs than high school students.^{xliii}

Because research states there is no statistically significant correlation between adolescent substance abuse and the probability of gaining a high school diploma, we could not determine effects on the Government Budget based on an expected wage difference.

We attributed the cost to society as \$840 for every young person prevented from substance abuse. This figure derives from a John P. Caulkins study that estimates this amount as strictly a social cost that does not include increased revenue to the government.^{xliv}

Society

$$\$840 \times (n)$$

CASE STUDY: YOUTH OPPORTUNITIES UNLIMITED (Y.O.U.)

Mission:

The mission of Y.O.U. is to empower disadvantaged youth born into poverty to succeed in school, in the workplace, and in life.¹⁰

Impacts:

Founded in 1982, Y.O.U.'s main impact is in the field of youth workforce development, which would be classified under the employment and training category of the Child Youth Development Matrix. Y.O.U. focuses exclusively on impoverished young people ages 14-19 in Cuyahoga County's largest areas of poverty. Since 1982, Y.O.U. has served over 150,000 youth through mentoring so that they can stay in high school and earn a diploma. Y.O.U.'s programs include job placement services, shadowing experiences, mock interviews and internships.

According to Y.O.U., they introduced academic retention programs in response to two trends:

1. a high-school diploma has become a minimum requirement for all entry-level jobs
2. over 60% of youth in Cleveland were dropping out of high school^{xlv}

Understanding the importance of increasing the employability of youth, Y.O.U. offers summer jobs to teens through strategic partnerships with local employers. Y.O.U. pays the teens' salaries to create opportunities that are favorable for both parties.

¹⁰ More information about Y.O.U. can be found at the organizations website: <http://www.youthopportunities.org/>

Table 6: Impact Assessment Tool applied to Youth Opportunities Unlimited

Intervention: Increase in high school graduation, Y.O.U. Cleveland, Ohio			
Category: Child and Youth Development			
Impact Area	Individual Beneficiaries	Government Budget	Society
Compensation	\$ 42,606,761		\$ 25,564,056
Market Value of Provided Product or Service	\$ 17,062,500		\$ 17,062,500
Net Market Effects			
Government Programs			
<i>Tax Receipts</i>	\$ (6,390,930)	\$ 6,390,930	
<i>Food Stamps</i>			
<i>Medicaid</i>		\$ 9,182,350	
<i>Judiciary costs</i>			
Gross Value	\$59,669,261.00	\$15,573,280	\$ 42,626,556
Program Costs		\$ 1,000,000	\$ 2,878,786
Net Value	\$ 13,114/per person	\$ 14,573,280	\$ 39,747,770

Assessment Tool Application

In application, if Y.O.U. were to seek federal funding through the Social Innovation Fund for their high-school mentoring program, our Impact Assessment Tool would translate the impacts made by Y.O.U.'s interventions into a framework that is comparable with other academic achievement programs. Y.O.U. is an example of a model nonprofit in terms of data collection. The organization tracks the number of youth whom they have served since inception. Y.O.U. also tracks the programs' success rates and matches them with goals set the previous year. We used Y.O.U.'s data for 2008 provided on their Web site and annual report, along with their 2008 IRS Form 990 to derive the numbers for the case study.

Y.O.U. identifies the following statistics from 2008:

- Core Program Participants, 2008: 5,482
- Core Program Participants who graduated from high school 2008: 4,550

We used these numbers with our impact indicator calculations to derive the values in the table.

Calculations:

- Based on our research, we identified a change in expected earnings for youth who graduate from high school at \$9,364 and then multiplied this value by the number of Y.O.U. participants that graduated from high school (4,550).
- The change to society is 60% of the change in wage. This is the percent of income spent in the market.
- Market value of provided services is \$3,750. We derived this value from an estimated range for the cost of similar training in Cleveland as quoted by Y.O.U.^{xlvi} This was multiplied by the total number of participants (5,482).
- We calculated tax receipts using our calculation for tax receipts based on income range. We estimated that the initial salary of high school graduates would be in the second range, with a Federal Income Tax Rate of 15%.
- Food stamps, Medicaid and welfare values are based on averages for the state of Ohio.

Y.O.U.'s program participants will only qualify for Medicaid if they are under the age of 19, pregnant, or the parent of a child under the age of 19. For the case study we assumed that each participant is under the age of 19, not pregnant and not a parent. The average cost of Medicaid for each eligible child in Ohio is \$1,675. We multiplied this by the total number of participants. Program participants will only lose this benefit when they turn 20. Therefore for this case study, no change is made to government programs dependent on the success of Y.O.U.'s high-school mentoring program.

To qualify for food stamps in Ohio, one's gross yearly income must be at or below 130% of the Federal Poverty Level. For a family size of 1, this value is \$14,404. Pregnant women are considered a family of 2. For the case study we assumed that the participants are neither pregnant nor parents. Again, no change is made to government programs because, according to our research, a young person without a high school diploma can be expected to make in excess of \$17,000.

We identified Y.O.U.'s program expenses from their 2008 990 at \$2,878,786. Using the tool, we were able to estimate that if Y.O.U. applied for a \$1 million grant the net benefit to society would be \$39,747,770.

Impact Area: Health Services & Education

Health, as defined by the World Health Organization, is a state of complete physical, mental and social well-being, not merely the absence of disease or infirmity.^{xlvii}

Health Services

Health services are the most visible part of any health system and include promotion, prevention, treatment and rehabilitation. They may be delivered in the home, the community, the workplace, or in health facilities.^{xlviii} The purpose of health services is to deliver effective, safe, good quality, personal and non-personal care to those who need it, when needed, with minimal waste.^{xlix} The health topics covered by health services represent an extensive list that covers a wide range of interventions.

Effective health service delivery depends on having key resources: motivated staff, equipment, information and finance, and adequate drugs. Positive contributions to health services include making improvements to access, coverage, and quality. These improvements depend on the ways services are organized and managed, and on the incentives influencing providers and users.ⁱ

Social enterprises contribute to the health services sector through providing these resources. For example, there could be an intervention aimed to train health service providers both to gain employment opportunities in their field as well as to deliver higher quality health services. Another health social enterprise may offer mobile drug and rehabilitation services in order to increase service access to program beneficiaries.

Health Education and Health Promotion

Health education is a social science that draws from the biological, environmental, psychological, physical and medical sciences to promote health and prevent disease, disability and premature death through education-driven voluntary behavior change activities.^{li} Health education is the development of individual, group, institutional, community and systemic strategies to improve health knowledge, attitudes, skills and behavior.^{lii}

The purpose of health education is to positively influence the health behavior of individuals and communities as well as the living and working conditions that influence their health.^{liii} Like health service interventions, health education programs are delivered in many locations, including in schools, at work, in health facilities, or through distance learning on the internet. Examples of health education interventions provided by social enterprises include after school peer education groups aimed to improve physical and mental health behaviors of middle school students as well as Internet learning courses aimed to engage clients in positive substitutes for unhealthy behaviors.

In the past, health education was used as a term to encompass a wider range of actions including social mobilization and advocacy. These methods are now encompassed in the term health promotion, a sector that has been recognized as distinctive from health education by entities such as the World Health Organization and the American Public Health Association.^{liv}

Health education comprises consciously constructed opportunities for learning involving some form of communication designed to improve health literacy, including improving knowledge, and developing life skills which are conducive to individual and community health.^{lv}

Health education is not only concerned with the communication of information, but also with fostering the motivation, skills and confidence (self-efficacy) necessary to take action to improve health. Health education includes the communication of information concerning the underlying social, economic and environmental conditions impacting health, as well as individual risk factors and risk behaviors, and use of the health care system. Thus, health education may involve the communication of information, and development of skills which demonstrates the political feasibility and organizational possibilities of various forms of action to address social, economic and environmental determinants of health.^{lvi}

According to the World Health Organization, health promotion is the process of enabling people to increase control over, and to improve their health. Health promotion is the provision of information and/or education to individuals, families, and communities that encourage family unity, community commitment, and traditional spirituality that make positive contributions to their health status.

Health promotion is also the promotion of healthy ideas and concepts to motivate individuals to adopt healthy behaviors.^{lvii} Health promotion represents a comprehensive social and political process, it not only embraces actions directed at strengthening the skills and capabilities of individuals, but also action directed towards changing social, environmental and economic conditions so as to alleviate their impact on public and individual health. Health promotion is the process of enabling people to increase control over the determinants of health and thereby improve their health. Participation is essential to sustain health promotion action.

Table 7. Impact Assessment Tool for Health Services and Education

Intervention:			
Category: Health Services and Education			
Impact Area	Individual Beneficiaries	Government Budget	Society
Compensation			
Market Value of Provided Product or Service			
Net Market Effects			
Government Programs			
<i>Tax Receipts</i>			
<i>Medicare/Medicaid</i>			
<i>Social Security/SSDI</i>			
Gross Value			
Program Costs			
Net Value			

Calculations

As a public entity, the Social Innovation Fund holds greater responsibility to make investment decisions on the basis of returns to society. Similar to the Poverty and Economic Opportunity area, assessments to health services and education interventions are largely focused on the financial gains resulting from productivity gains and quality of life improvements.

Health sector interventions create health benefits that lead to economic benefits that can be calculated using our tool. These benefits come in the form of increasing quality and access to health services, improvements to morbidity, reductions in environmental risk factors, and promoting behaviors conducive to health.¹¹

Similar to the other sectors described previously, we see resulting economic benefits in the form of compensation, which can increase for beneficiaries (and ultimately, benefit society),

¹¹ Increasing quality and access to health services (e.g., increasing immunizations, vitamins, hospital beds, nurses...); Improvements to morbidity (e.g., increasing life expectancy or reducing mortality, disease burden...); Reductions in environmental risk factors (e.g., improving public sanitation), and Promoting behaviors conducive to health (e.g., medication compliance, lifestyle changes...)

through a number of avenues, including increased health resulting in fewer missed days from illness/disability, health workforce job training, increased work hours given to employees (part-time to full-time status), and increased benefits such as health care coverage.

Our tool takes the perspective of quantifying benefits as perceived cost-savings. This allows one to reference the available studies and estimations of costs incurred from poor health indicators.

In the following paragraphs we have detailed the equations we recommend that investors use for quantifying projected outcomes from health-related interventions.

As a substantive measure for social impact, predicted productivity gains resulting from health-related interventions can be calculated indirectly. These calculations are completed through the monetization of the expected increased outputs generated by the beneficiary as a result of taking part in the intervention.

Compensation¹²

By multiplying the number of program participants (n) by the change in wage (Δ wage), and the number of hours worked (h), investors forecast the gains to program participants. This takes into account changes to both wages and benefits (e.g., healthcare). Similar to Economic Opportunity, this value estimation also accrues to society as beneficiaries are lifted out of poverty. The calculation is outlined below.

$$\Delta \text{ wage} \times (n) \times h$$

Market Value of Provided Products or Services

In evaluating a health-related intervention, products and services provided to beneficiaries must also be accounted for. For example, if an intervention's mission were to reduce teenage pregnancy by promoting the use of contraceptives, this category would be used to calculate the market value of the contraceptives provided at no or subsidized cost to the recipient.

$$\text{Market value of provided products or services} \times (n)$$

In calculating market value, we are only considering the value gained from the actual receipt of the product or service rendered since social benefit is not gained from products in inventory. Here we take a just in time approach. However, if this approach is not taken, such with interventions requesting funding for large product stock distributed over numerous years, product time horizons and amortization must be considered.

¹² For more detailed discussion about calculating compensation, market value of provided products or services, and net market effects, see the section "Key elements of the tool."

Net Market Effects

As part of any evaluation of a possible intervention, net market effects must be assessed. This category addresses the effects to demand and supply. In the teen pregnancy example mentioned above, one possible net market effect may be reducing the price of contraceptives if the market were to be flooded by the influx funded by the intervention. Such a situation is very unlikely, but must also be addressed in evaluation of program investments.

Net Market Effects could also include negative externalities, such as air pollution or tobacco smoking. With an example like air pollution, one would estimate the cost savings of an intervention that prevented or alleviated the externality by calculating the probable impact of the condition associated with the externality. The calculation mechanism is below.

Externality cost savings = Population x Percent of population affected by externality x Probability of condition (e.g., Asthma) x Annual cost incurred by condition

Government Programs

In addition to productivity gains, savings and costs incurred by government should also be assessed when evaluating interventions. The programs below are those that are most directly affected by changes to program participant health.

Economic benefits take the form of reduced costs for certain government programs that see a reduction in the number of participants: Welfare, Medicaid/Medicare, and Social Security/Social Security Disabilities Insurance. However, since certain health interventions should extend life expectancy for beneficiaries, the costs of government programs benefiting the elderly (Medicare and Social Security) may increase. Even with these increased costs, we believe the tax gains from beneficiaries earning higher wages over the course of their post-intervention lifetimes create a positive outcome for the government and society.

Tax Receipts

As the health of an intervention beneficiary improves and their compensation increase, their tax receipts will also increase. This is a government gain of the incremental tax receipts which, depending on any movement between tax brackets, may actually result in a financial loss to the beneficiary.

Tax receipts: Δ wage \times applicable tax rate

The tax rate can be determined by scrutinizing tax data presented previously in this report.

Medicaid/Medicare

Medicaid

As calculated for Poverty & Economic Opportunity, government savings in Medicaid expenses are observed as program participation declines and payments are reduced. Calculations for this projected savings include the savings (payment allocation and staff) from reducing the Medicaid qualification pool.

Government Savings: $(\text{Ave. Medicaid payment per beneficiary} \times (-) \Delta (n_{\text{Medicaid}})) + (\text{Ave. Staff Salary} \times \text{Staff Member(s) per Medicaid recipient} \times \Delta (n_{\text{Medicaid}}))$

Medicare

Contrastingly, health interventions are likely to create a cost increase as a result of life expectancy increases. However, we fully expect that increases to quality of life will result in productivity gains that offset these costs. These gains are addressed in the Tax Receipt category where government gains from the added productivity over a longer life. This productivity gain also adds to the accumulation of Medicare funds, which may result in larger beneficiary payments. Additionally, the improvement in health services and behavior also increases the likelihood that health claims will also decrease.

Government Losses: $(\text{Ave. Medicare claims per beneficiary} \times \Delta (n_{\text{Medicare}})) + (\text{Ave. Staff Salary} \times \text{Staff Member(s) per Medicare recipient} \times \Delta (n_{\text{Medicare}}))$

Social Security/Social Security Disabilities Insurance

Social Security

Similar to Medicare, Social Security (SS) program costs incurred due to increases in life expectancy and staff needs are likely to be observed by health interventions. Again, we anticipate these losses to be offset by productivity gains however conservative our estimations.

SS: $(\text{Avg. annual SS payment} \times \Delta (n_{\text{SS}}) \times \text{Estimated additional SS years per recipient}) + (\text{Ave. Staff Salary} \times \text{Member(s) per SS recipient} \times \Delta (n_{\text{SS}}))$

Social Security Disabilities Insurance

Another added benefit of health interventions is an increase to quality of care and an expected reduction to the number of disabilities covered by Social Security Disabilities Insurance (SSDI). A prime example is interventions that promote improved worker health conditions, preventing work-related incidents. The following function can be used to calculate government cost savings from reducing the SSDI qualification pool.

SSDI: $(\text{Ave. SSDI payment} \times \Delta (n_{\text{SSDI}})) + (\text{Ave. Staff Salary} \times \text{Staff Member(s) per SSDI recipient} \times \Delta (n_{\text{SSDI}}))$

Program Costs

Rounding out the assessment of health interventions, our tool also places space for program cost accounting. By including the expected program costs, a measure of efficiency and rate of return can be quantified.

Background and Mission

Project HEALTH mobilizes undergraduate volunteers in partnership with providers in urban clinics, to run two types of programs to improve the health of low-income children and families.^{lviii} Project HEALTH's model addresses unmet resource needs that directly impact health outcomes for the most vulnerable populations.¹³

A fundamental belief driving Project HEALTH's mission is that medicine is not enough in health care – there are also social conditions that impact health that doctors cannot address. Project HEALTH aims to impact the social determinants of health, such as the conditions in which people grow, live, work and age. These circumstances are shaped by the distribution of money, power and resources and result in economic disparities.^{lix} Social determinants of health contribute largely to health inequities, which Project HEALTH tries to reduce.

Founded in the Boston Medical Center Pediatrics Department in 1996, Project HEALTH now serves over 4,000 families annually with nearly 600 volunteers in Baltimore, Boston, Chicago, New York City, Providence, and Washington, D.C.

In each city, Project HEALTH's undergraduate volunteers partner with physicians and other providers to connect families in pediatric outpatient clinics, newborn nurseries, adolescent clinics, ob/gyn clinics, pediatric emergency rooms, and community health centers with the resources they need to be healthy. The program, Family Help Desk, provides preventative referrals to government and community resources in affordable housing, child care, employment, GED classes, and job training.

Impacts

Project HEALTH's Family Help Desk enables families to avert crises and to access increased income and education, which have been documented to result in better long-term health outcomes.

Over a five-month period in 2008, Family Help Desk clients at Boston Medical Center received the following resources:

- 205 families secured housing, including Section 8 and market rate units and shelters
- 154 clients obtained slots in child care, after school, and Head Start programs
- 135 clients accessed food stamps, food pantries, dollar-a-bag programs, or farmers' markets

Across the 16 Family Help Desks, an average of 52% of families obtain at least one resource they need - i.e., receive food, secure child care, find an apartment - within 90 days of receiving

¹³ More about project health can be learned from viewing the organization's website: www.projecthealth.org.

services at the Desk, with the remainder receiving ongoing follow-up until they obtain the resource.

Volunteers continue to follow with all families until they obtain appropriate resources to meet each of their needs. Over three-quarters of Family Help Desk clients present with multiple needs, and over one-third of clients present with 3 or more needs. On average, each client receives assistance in accessing an average of three different community resources.

Table 8. Impact Assessment Tool as applied to Project HEALTH

Intervention: Project HEALTH Family Help Desk – resource referral to low-income families (14,537 children and their families*)			
Category: Health Services			
Impact Area	Individual Beneficiaries	Government Budget	Society
Compensation			
Market Value of Provided Product or Service			
Net Market Effects			
Government Programs			
<i>Tax Receipts</i>			
<i>Medicare/Medicaid</i>			
<i>Social Security/SSDI</i>			
<i>Section 8 housing assistance</i>			
<i>Federal child care</i>			
<i>Food stamps</i>			
<i>TANF</i>			
<i>LIHEAP (Fuel assistance)</i>			
Gross Value			
Program Costs			
Net Value			

Assessment Tool Application

If Project HEALTH were to seek federal funding through the Social Innovation Fund, our Assessment Tool would quantify the impacts of its Family Help Desk in order to allow for comparison with other health services interventions. Given comprehensive follow-up with clients, Project HEALTH would be able to calculate the expected net value contributed to society through its program and present a case for receiving funding from social enterprise investors.

Ideally, Project HEALTH would collect data from clients in the following impact areas:

- **Compensation** – increase in wages as a result of employment services
- **Market Value of Provided Product or Service** – value of child care services and after school programs; value of food obtained from food pantries, dollar-a-bag programs, and farmers’ markets; value of housing units obtained; value of other products provided through social services
- **Government Programs**
 - tax receipts
 - Medicare
 - Medicaid
 - Other welfare (Temporary Assistance for Needy Families, food stamps)
 - Other programs (child care services, fuel assistance through Low Income Heat Energy Assistance Program, Section 8 housing, etc.)

Health-related Secondary Impacts

In order to assess the complete net social benefit of Project HEALTH’s Family Help Desk, Project HEALTH would conduct follow-up surveys with clients to assess the savings in health service costs associated with services provided through referrals from the Family Help Desk. This amount would be added to the “Market Value of Provided Product or Service” row of the Assessment Tool, both in the Individual Beneficiaries and Society columns. These data, considered secondary impacts, may be extremely difficult to track due to the challenge of proving causality between social services and health cost savings, especially because many projected health impacts are long-term. For example, a child who begins attending an after school program subsequent to a referral through the Family Help Desk might get more physical exercise, reducing her risk of diabetes and the associated health costs.

The following Assessment Tool template identifies impact areas relevant to Project HEALTH’s intervention. Because the Family Help Desk refers clients to a comprehensive list of social services, the Assessment Tool provides a method for showcasing the net social benefit of its impacts in a format compelling to investors. Note that while Project HEALTH is considered a model social enterprise in the health field, the organization does not publicly provide data

necessary for the completion of the Impact Assessment Tool. Therefore, the tool is presented as merely a framework that could be useful in assessment of Project HEALTH.

Mission

CHCA (Cooperative Home Care Associates) located in South Bronx, New York is an organization with the mission and goal of improving the lives of healthcare workers through training, development and advocacy of this much under-recognized and undervalued essential component of the US healthcare system. *Started by the non-profit development corporation PHI (Paraprofessional Healthcare Institute), CHCA is a worker-owned home care agency which directly employs home health aides.* Through its national presence and focus on the long-term direct-care workforce, CHCA has established itself as a leader in the integrative use of policy and practices to create *Quality Care through Quality Jobs*.¹⁴

As stated by PHI President, Steven L. Dawson, CHCA aims to:

“to improve the quality of the direct-care worker’s front-line jobs, and in doing so improve the quality of care for long-term care consumers. We focus our work on re-designing systems around the relationship between the consumer and her caregiver — we believe that only a respected and valued workforce will be able to provide quality care to residents. We do this work at both the practice level, consulting directly with provider agencies, and at the policy level.”

Impacts

CHCA focuses its efforts on direct-care workers, resulting in numerous societal impacts in the form of increasing workforce opportunities and quality of care. Through ongoing projects, CHCA has managed to bolster wages and improve stability of long-term direct-care workers through programs like its “Pathways to Independence” which operates to place, train and support homecare workers in New York City. CHCA has also worked closely with the Robert Wood Johnson Foundation to demonstrate the link between employee retention and improved continuity of long-term care.^{lx}

Additionally, research has also shown many extended benefits from increasing employee wages, trickling down to affect the labor market, quality of care, poverty outcomes, and even observed reductions to direct wage and benefit costs. In 2002 researchers demonstrated that an intervention nearly doubling the wages of IHSS workers in the poorest communities of San Francisco resulted in a county-wide distribution of one hundred and fourteen million to IHSS workers by a cost of as little as \$8M that may have totally been offset by savings from reductions in participation to cash aid programs.^{lxi}

As real wages for long-term care workers decrease, these members of the American workforce are in increasingly greater demand. With the growth of the elderly population, U.S. dependence

¹⁴ More about CHCA can be learned from viewing the organization’s website: <http://www.chcany.org/>

on reliable and high quality long-term direct-care is currently strained by the low standards of care among poorly trained healthcare providers. Additionally, real wages for direct-care employees have been falling over the last decade and are still near poverty wages. This brings with it the need for organizations such as CHCA to fill this gap through training and awareness campaigns that both shed light and help alleviate the societal burdens caused by this problem.

Table 9. Application of the Impact Assessment Tool to CHCA

Intervention: CHCA – Direct-care Workforce Employment (1,000 workers)			
Category: Health Services			
Impact Area	Individual Beneficiaries	Government Budget	Society
Compensation	\$1,346,800		\$1,346,800
Market Value of Provided Product or Service	\$119,520		\$99,600
Net Market Effects			
Government Programs			
<i>Tax Receipts</i>	\$(202,020)	\$202,020	
<i>Medicare/Medicaid</i>	\$(706,000)	\$1,062,950	\$362,950
<i>Social Security/SSDI</i>			
Gross Value	\$ 558,300	\$ 1,264,970	\$1,809,350
Program Costs	\$0	\$1,000,000	\$1,000,000
Net Value	\$558/per person	\$264,970	\$ 809,350

Assessment Tool Application

In application, if CHCA were to seek federal funding through the Social Innovation Fund, our CBA Assessment Tool would translate the impacts made by CHCA’s interventions into a framework that is comparable with other health-related interventions. Presenting this information in our tool allows investors to assess the expected net value contributed to society by funding CHCA’s intervention(s).

One of the great advantages an organization like CHCA has over its competition is the fact that it already has a robust evaluation system in place. CHCA’s sophisticated Quality Job Scorecard is a tool that the organization uses to monitor its progress and success. Measurements for compensation, opportunity and workforce support are detailed in the scorecard (See Appendix

4). Additionally, CHCA has also developed a Business Investment Calculator that analyzes the numerous cost savings and other effects of increasing worker stability.¹⁵

Applying the evaluation measurements already tracked by CHCA with researched cost savings estimations, the below values are generated. These are projections quantifying societal impact in a way that allows for comparison with similar organizations.

In calculating gains from compensation, CHCA would multiply the gain to earnings and benefits by the number of participants for the intervention that is under consideration. Additionally, an increase to compensation results in relative decreases to government programs. These cost-savings to government are considered lost benefits to the individual intervention program participants due to the loss of eligibility for these benefits.

As reported by CHCA, the average wage for personal and home care aides was close to poverty wages at \$9.22 in 2008.^{lxii} By contrast, CHCA direct care employees were making 8% more than the industry average, with an additional 25% of wages added as benefits and an average of 5 hours more weekly work hours. Additionally, CHCA strives to increase quality of care by providing its employees with extensive training and certification opportunities. On average, CHCA provides its employees 12 hours of annual additional in-service training. A market value for such training can be valued at the wage rate since employees are paid to attend training. However, training is only one of many services provided to program participants. A full cost-benefit analysis would take into account costing of all such services and related interventions associated with program participation.

Government gains in the form of tax receipts are also factored into the assessment of a CHCA workforce intervention, resulting from an increase in compensation. Taking into account the average wage, the average tax rate is assumed to be 15%.^{lxiii}

As a result of poor job satisfaction, the turnover rate for direct care workers is extremely high at 45% whereas the CHCA average for 2008 was at 28%.^{lxiv} In *The Cost of Frontline Turnover in Long-Term Care*, Dorie Seavey assessed a “\$3,500 per direct care employee” cost for every lost employee. The report also attributes 61% of long-term care costs to Medicare and Medicaid, making CHCA’s 17% lower than industry turnover rate result in a government savings of \$362,950 per year for CHCA’s approximate 1,000 employees. These savings also accrue to society as they allow these funds to be redirected for alternative use. Social insurance savings are also to be expected by a CHCA intervention, which would eliminate the \$706 monthly Medicaid payments received by beneficiaries within the state of New York.^{lxv}

In the hypothetical situation that CHCA were to apply for a \$1M grant from the Social Innovation Fund, the government would observe a more than 26% rate of return.

¹⁵ The Excel document and User’s Manual are open source documents located at this website: <http://phinational.org/>.

Impact Area: Crime Reduction

In the United States, most programs designed to reduce crime have never been rigorously evaluated.^{lxvi} In addition, crime carries enormous social costs, with the potential to not only affect the direct victim but it also can have an impact that results in costs for communities and larger society.

Another cost to society is reoffending prisoners. As we will later demonstrate, this especially applies to the case of reoffending youth who have the potential to lead a costly life of crime. For many offending youth, crime can become the norm.

Social enterprises may have the potential to break the cycle of crime. Many social enterprises provide employment and training opportunities for reoffending prisoners as well as for high-risk youth. These opportunities are essential because offenders are in a disadvantage when it comes to the labor market. Involvement in a job training program has the potential to prevent ex-offenders from committing further crimes and increases their potential of becoming a contributing member of society. Therefore, one of the important considerations in preventing crime is identifying and “scaling” some of the enterprises and organizations that are eager to help offenders to secure training and employment opportunities.

Typology of Costs

Traditionally, there are three types of crime costs:^{lxvii}

- Costs imposed by the offender on the victim.
- Costs society incurs in response to crime or deterrence.
- Opportunity costs incurred by the offender while incarcerated.

Not all costs are the same and they cannot be treated equally. For example, a cost to a victim (private citizen) may not translate as a cost to the government. As a result, it is important to distinguish between costs to the victim, offender, society and government.

Another categorization of costs would be social and external costs. External costs are costs imposed by an offender on a victim^{lxviii} while social costs are those that reduce the aggregate well-being of society.^{lxix} The line can easily be blurred between the two. For example, people in society become so concerned when they hear about acts of victimization that they would be willing to expend resources in order to prevent similar suffering. To an extent, a single act of violence can carry an external cost as well as a social cost. Moreover, there is no real agreement on which crime costs are social costs. In our tool, we have accounted for incidents of victimization as a social cost as well as an external cost.

Disaggregating the costs of crime can assist evaluators and economists to undertake cost-benefit analyses of different crime prevention and control policies. Below is a list of the costs of crime. Some of these costs can be quantified and others cannot. Based on available research

and importance, some of these cost factors or indicators are included in our tool. These costs are adapted from Miller, Cohen, and Weirsema (1996).^{lxx}

Table 10. Impact Assessment Tool for Crime Reduction

Intervention:				
Category: Crime Reduction				
Impact Area	Individual Beneficiaries	Offender	Government Budget	Society
Earnings				
Market Value of Provided Product or Service				
<i>Medical Care/Ambulance</i>				
<i>Mental Health</i>				
<i>Police/Fire Service</i>				
<i>Social/Victim Service</i>				
Property Loss/Damage				
Net Market Effects				
Government Programs				
<i>Aggregate Government Cost</i>				
Gross Value				
Program Costs				
Net Value				

Application in the Tool

Application of the Impact Assessment Tool to programs designed to prevent crime differs slightly from application in other funding areas. Unlike other funding areas, robust data estimating the costs of crime exists, and can be employed in estimating the costs saved by investing in interventions meant to deter or prevent crime. The costs listed in the Impact Assessment Tool and the sources for the data are detailed below. In the case of crime interventions “Program Beneficiaries” as defined in the tool are potential victims who were prevented from victimization because of the work of the social enterprise. See Appendix 5 for more specific information about these costs.

Tangible saved costs^{lxxi}

Earnings losses:

- Victim: data is taken from the National Crime Victim Survey (NCVS) and estimate of short and long-term loss of workdays.
- Offender: data is drawn from the Bureau of Justice Statistics survey of prison and jail inmates.

Medical care/ambulance: Data was obtained from NCVS and was combined with cost of injury data from hospitalization charges reported from several states.

Mental health care: Cohen and Miller (1998) conducted a stratified random sample of mental health care professionals and gathered data about costs including number of visits and counseling costs.

Police/fire services: The data is based on the cost of dispatch of emergency vehicles, which averages \$200/crime.

Social/victim services: We used estimates from the National Organization for Victim Assistance (NOVA) and the National Center for Victims of Crime. Figures are estimates of expenditures, taking into account federal spending only.

Property loss/damage: About 24% of all tangible costs of crime are property losses; this data was directly taken from NCVS.

Criminal Justice System: The criminal justice costs are estimated on a per crime approach based on single localities.

Equations

The following equations can be used to estimate the cost savings of preventing crimes based on projected numbers of crimes prevented by the social enterprise.

Program beneficiaries: Values in column are directly taken from Cohen's study, and are listed in the cost table in Appendix X.

Offender:

Estimated costs of wages earned × time spent incarcerated) × (probability that offender will be incarcerated "P") = costs to the offender

If an offender commits a crime and is not convicted and incarcerated, then the offender continues to earn a wage.

Government Budget:

of crimes prevented × aggregate criminal justice system costs = savings to the government

Society: Since a program beneficiary and offender are components of society, they are included in societal savings. Additionally, government savings is also included to social savings because society bears the costs of crime as taxpayers.

Program beneficiary column + offender column + government savings

Savings per type of crime:¹⁶

For some types of crime, the total cost of the crime has been estimated. Therefore, depending on the proposed intervention, evaluators might simply need to use the following equation to estimate realized savings by preventing these crimes.

[Total cost of crime (i.e. rape, robbery) in \$] × [# of reductions] = savings (in \$)

Total cost of crime = victim costs + society + govt. cost + offender cost

$$\frac{\text{Total savings (\$)}}{\text{\# of reductions}} = \$ \text{ saved/type of crime}$$

¹⁶ If the CNCS would prefer to evaluate crime interventions as reduction in overall crime or % reduction in crime, they will need to find average costs for each indicator with respect to the aggregate cost of crime.

Mission

The YouthBuild USA Offender project is a targeted intervention program for low-income 16-24 year-old criminal offenders. In 2004, YouthBuild USA was funded by the U.S. Department of Labor to foster incarcerated youth re-entry programs. According to DOL-established criteria, YouthBuild was chosen because it operates ‘high-quality’ programs and services, demonstrates effective partnership building, reaches a targeted population, and has the ability to mobilize support.^{lxxii} YouthBuild’s philosophy is that in an environment “filled with respect, a caring community, a positive peer group, high standards of self-discipline and performance, a valued role in the neighborhood, an opportunity to develop skills, and the means to future education and employment—young adults with troubled pasts can transform themselves into productive citizens with viable futures”.^{lxxiii} Essentially, the program consists of a “combination of education, skill-building, counseling, leadership development, community service, positive values and relationships, high standards of behavior, and clear pathways to a productive future.”^{lxxiv}

Impacts

YouthBuild USA’s Youthful Offender goals are:^{lxxv}

- To strengthen local YouthBuild programs’ capacity to work with youthful offenders, enabling them to reconcile past failures, set a course for positive development, and take progressive steps to building themselves in ways that will secure their future well-being;
- To acquire a growing understanding and informed partnership with the criminal justice system at a progressively larger number of YouthBuild sites; and
- To develop local models of program-strengthening efforts that can be evaluated for impact, documented, and incorporated into YouthBuild USA’s national organizing, training, and technical systems to ensure that a growing number of youth, staff, and community members benefit from these local efforts.

In 2007, YouthBuild USA was awarded a grant from the Skoll Foundation. These funds were used in part to fund the evaluation of the youth offender project. Data was collected from 388 participants from the fourth quarter of 2004 through the second quarter of 2007.^{lxxvi} Overall, YouthBuild graduates had lower criminal offending rates and were more likely to obtain a degree or GED compared to YouthBuild dropouts (58% versus 18%).^{lxxvii} The high school graduation rate for those who entered the program without a high school degree or GED was 46.1%.^{lxxviii} Cohen and Picquero compared the YouthBuild findings to a similar youth cohort where YouthBuild was not a presence. They found significant differences in high school graduation and recidivism rates between the two groups. Without YouthBuild, the graduation rate for NLSY data analyzed by Mishel and Roy, was around 20%.^{lxxix} Using this percentage with

¹⁷ See Cohen, Mark A. and Piquero, Alex R. (2008). Costs and Benefits of a Targeted Intervention Program for Youthful Offenders: The YouthBuild USA Offender Project.

YouthBuild participants, it is expected that as many as 90 participants (out of 388) received a high school or GED degree, representing an 'excess' graduation rate of 23.2%.^{lxxx}

Costs and Benefits of the Program

Cohen and Picquero (2007) estimated that the present value of future benefits from saving a youth from dropping out of high school is between \$420,000 and \$630,000 (in 2006 dollars).^{lxxxii} Taking into account the excess graduation rate of 23.2% mentioned in the previous section, the potential educational benefits for each program participant are between \$97,000 and \$146,000.^{lxxxiii} Moreover, they also found that the cost of a lifetime of crime after age 18 is between \$2.0 and \$4.3 million.¹⁸ Using the previous estimate that the YouthBuild program is able to divert between 3.4% to 9% of its participants away from a lifetime of crime (or youth who otherwise would have been expected to recidivate), the benefits per participant would range between \$68,000 and \$390,000.^{lxxxiii}

The average cost per YouthBuild program participant is \$14,830 in 2001 dollars.^{lxxxiv} In 2006, this figure is estimated to be \$12,500 which is far less costly than incarcerating an adult (average of \$25,000) or a juvenile (about \$100,000) for one year.^{lxxxv} Assuming that 3.4% of YouthBuild participants do not recidivate, the social benefits per participant ranges between \$6,800 and \$17,000 after one year.^{lxxxvi}

Combining the educational benefits range of \$97,000 to \$146,000 with the \$37,000 and \$54,000 or \$99,000 and \$144,000 in reduced crime benefits (assuming 3.4% and 9% success rate respectively), the total YouthBuild Offender Project benefits would range between \$134,000 and \$536,000 per program participant.^{lxxxvii}

Below is an example of how the tool can be applied to a specific intervention targeting a specific type of crime. In this case, we are assuming that YouthBuild contributed towards the reduction of 100 robberies in one year. This scenario also assumes that 50 students are participating in the program and that the only benefit from YouthBuild is a reduction in 100 robberies (in reality, this would be highly improbable in that there would be more benefits from the program). YouthBuild costs approximately \$14,830 per student. Additionally, we are assuming that the probability an offender will be caught if he or she commits a robbery is 100%, reflected by $P = 1.0$. Using the equations from above, we are able to show the social savings of preventing 100 robberies by funding YouthBuild.

The net value of savings reflects the benefits of YouthBuild solely based on a reduction of 100 robberies. For the CNCS, YouthBuild would be a potential recipient of Social Innovation Funds because this net value is over \$2million.

¹⁸ Determining the lifetime cost of a crime is beyond the scope of this paper. For more information please see Cohen, Mark A. and Alex Picquero. (2007). New Evidence on the Monetary Value of Saving a High Risk Youth.

Table 11. Impact Assessment Tool as applied to YouthBuild USA

Intervention: Preventing 100 Robberies through the YouthBuild USA Offender Project				
Category: Crime Reduction				
Impact Area	Individual Beneficiaries	Offender	Government Budget	Society
Earnings	\$ 95,000	\$ 2,044,000 x (1.0)		\$ 2,139,000
Market Value of Provided Product or Service				\$ 17,062,500
<i>Medical Care/Ambulance</i>	\$37,000	\$0		\$37,000
<i>Mental Health</i>	\$6,600	\$ 0		\$6,600
<i>Police/Fire Service</i>	\$13,000	\$ 0		\$13,000
<i>Social/Victim Service</i>	\$4,600	\$0		\$4,600
Property Loss/Damage	\$75,000	\$ 0		\$75,000
Net Market Effects				
Government Programs				
<i>Aggregate Government Costs</i>			\$943,500	
Gross Value	\$231,200	\$2,044,400	\$943,500	\$ 3,218,700
Program Costs			\$741,500	\$741,500
Net Value	\$13,114 /person		\$202,000	\$2,3477,200

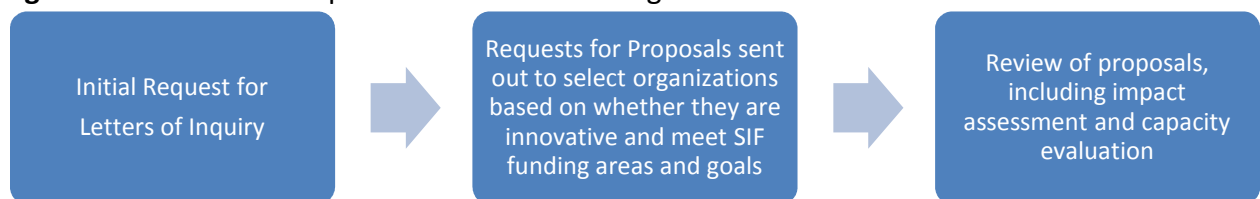
Guidelines for Application of the Impact Assessment Tool

The Impact Assessment Tool described in this paper is designed for use by the CNCS in the disbursement of grants directly to social enterprises (as opposed to disbursement through intermediaries) through the SIF. This accounts for 10% of the total SIF, or about \$5 million in the first year of funding. The tool itself is one part of a total evaluative process in making pre-investment funding decisions. It is neither a substitute for determining the capacity of an organization, nor for the quality of its intervention(s), and is most effective when used in conjunction with other evaluative measures. Several steps must take place both before the tool is applied to potential investments and after the social impact of the potential impact is determined. This section outlines guidelines, both for applying the tool itself as well as for actions both before and after the tool is applied.

Recommended Evaluation Process

The recommended process for the investment of this direct funding is outlined in Figure 7 below.

Figure 7. Recommended process for direct funding



It is recommended that the CNCS first release a public request for letters of intent from social enterprises. This letter of intent should elicit enough information to assist the CNCS in identifying interventions that might be eligible for funding. This information includes:

- *Classifying an intervention as “innovative.”* The CNCS should have its own definition for innovation. Within the field of social innovation there is a lack of consensus on the definition of innovation and its relevance as criteria for assessing the quality of interventions. The CNCS should determine an evaluative measure for innovation as defined in the legislation. The CNCS should elicit information from organizations to help determine if the potential intervention is in fact innovative, according to its standards.
- *Identifying the intervention funding area.* The CNCS should ensure that the potential intervention can be classified under its priority impact areas, if at all. Many interventions carry impacts that overlap across issue areas and organizations may struggle with classifying themselves. When there is overlap in interventions, they should be classified under the area where the intervention makes the most impact. Relevant impacts from other intervention funding areas should still be included in the assessment. The CNCS should provide guidance for organizations on making this classification.

- *Identifying the specific goals and impacts of the proposed intervention.* The CNCS must elicit information from interested organizations that clearly articulates the goal of the proposed intervention. Understanding the particular outcome being measured will assist the CNCS in not only deciding whether or not to further consider the proposal, but also in utilizing the impact assessment tool.

Upon review of the letters of inquiry, the CNCS should use criteria articulated above, as well as any other criteria it deems important (geographic considerations, organization size, etc)¹⁹ to identify a short list of organizations to apply for SIF funds. The CNCS should release a targeted request for proposals to those organizations. Organizations should, in their proposal, present the completed impact assessment tool as well as data deemed necessary by the CNCS to assess organizational capacity to deliver the intervention. Step-by-step instructions for completing the impact assessment tool are articulated below.

Upon receipt of proposals, the CNCS should review the impact assessment tools as submitted by the organizations to check for appropriate application of the tool as well as for data integrity. It is recommended that the CNCS utilize expert evaluators to review proposals as well (see Limitations, Recommendations, and Opportunities for Future Research). Once the CNCS determines that the intervention’s net impacts are positive and that the organization should be scaled, it should evaluate the organization’s capacity to deliver the intervention. The CNCS should determine weighted criteria for measuring organizational capacity – taking past performance into consideration to determine the likelihood of success.

The following table outlines a suggested timeline and steps for consideration by the CNCS in soliciting and evaluating proposals.

¹⁹ While the CNCS has specified some funding eligibility requirements, it is unclear whether other preferences should be taken into account. For example, the CNCS may wish to concentrate investment decisions in one region of the country, or only in urban areas. Additionally, the SIF is meant for organizations which manage interventions that are scale-ready; this might prevent organizations of a certain asset size from being considered. While the applicants to the SIF should be evaluated as objectively as possible, this stage of the evaluation process is where the CNCS could apply more subjective criteria.

Table 12. SIF Timeline for the CNCS

Goal	Action	Timeframe
Prepare pre-investment proposal documents to be used by organizations requesting funds	Design: <ul style="list-style-type: none"> · Request for Letter of Inquiry · Full Request for Proposal (including Capacity Assessment) · Assessment Tool Template/Instructions 	Between 7-12 months prior to funding announcements
Formally announce the request for Letters of Inquiry	<ul style="list-style-type: none"> · Post the request on the CNCS website · Advertise the request through existing social enterprise and non-profit networks 	7 months prior to funding announcements
Identify organizations to complete Request for Proposal, including Assessment Tool	<ul style="list-style-type: none"> · Collect Letters of Inquiry and review for baseline eligibility · Send chosen organizations an invitation to complete a full proposal including the Assessment Tool 	5 months prior to funding announcements
Support organizations in preparation for evaluation	<ul style="list-style-type: none"> · Undertake site visits · Assess and monitor data collection and application techniques 	Up to 3 months prior to funding announcements
Identify organizations to fund	<ul style="list-style-type: none"> · Collect full proposals · Review and choose organizations based on <ol style="list-style-type: none"> 1. Impact assessment scores (reviewed by CNCS staff and sector-based expert panels) and 2. Capacity to deliver intervention/program Send award announcements 	3 months prior to funding announcements
Support organizations in preparation for post-evaluation and re-investment	<ul style="list-style-type: none"> · Monitor data collection · Make site visits · Conduct mid-term evaluations 	Throughout funding period
Identify organizations in which to re-invest	<ul style="list-style-type: none"> · Review data against projections in Assessment Tool · Conduct final evaluation · Review Re-Investment Proposals 	3-5 months prior to second funding announcement
Identify new organizations in which to invest	Repeat the process outlined above	7-12 months prior to announcing second round of funding

Steps for Applicant Social Enterprises for Completing Assessment Tool

It is important to note that, according to the process outlined above applicant organizations will be completing the Impact Assessment Tool outlined in this report. Below are basic step-by-step instructions for completing the assessment tool for submission as a part of a full proposal. The CNCS should use this “how to” as a basis for developing the full Request for Proposal distributed to selected organizations. The full RFP should include base data deemed suitable by the CNCS; for example, the CNCS should articulate the acceptable measurement for government costs such as Welfare, Food Stamps, and Medicaid costs that should be applied across different applicants. A discussion about appropriate sources for this data is included in the next section.

The steps to complete the assessment tool are:

1. Calculate projected Quantitative Impacts

- Identify and calculate changes in compensation to beneficiaries as a result of the program.
- Identify and calculate the market value of the provided product or service ie, the cost to beneficiaries if they were to pay for the product of service.
- Identify and calculate the net market effects, if any (the dead weight loss associated with information asymmetry, monopolies, negative externalities, etc.).

2. Calculate Government Program Impacts

- If the Individual Beneficiary of the program no longer receives the government service as a result of participation in the program, then it is recorded as a negative impact for the Individual Beneficiary and a positive impact the Government Budget.
- If the Individual Beneficiary receives an additional service as a result of participation in the program, then the cost of service is recorded as a positive impact for the Individual Beneficiary and negative impact for the Government Budget.
- The Society column is left blank as Government Program Impacts represent only a transfer of funds between Individual Beneficiaries and Government Budget. These Government Program Impacts could include:
 - Tax receipts
 - Food Stamps
 - Medicaid
 - Medicare
 - Social Security
 - Social Security Disability Insurance
 - Welfare (TANF: Temporary Assistance to Needy Families)

3. Add each column (Individual Beneficiaries, Government Budget, and Society) vertically to find the Gross Values for each.

4. Calculate program costs and add them to the appropriate “Program Costs” row under each column

- Individual Beneficiaries program costs include any fees paid by the beneficiaries.
- Government Budget program costs include the value of the SIF grant being requested.
- Society program costs include the total cost of producing the intervention.

5. Calculate the Net Value for each of the columns. The Net Value for the Society column is the final number that the CNCS should use to compare potential interventions for investment and represents the projected net Social Benefit of the intervention.

If applicants are indeed chosen to receive SIF funding, the organization’s project implementation plan should include mechanisms for tracking impact data. Upon the mid-term and completion of the funding cycle, as well as upon completion of the intervention period articulated in the proposal, organizations together with the CNCS should complete the tool once again with the actual numbers collected.

Limitations, Recommendations, and Opportunities for Future Research

While this tool represents a start in developing a standard way of assessing the social impact of social enterprise, there are improvements that can be made to the tool. The tool is limited to use in evaluating organizations that fall in one of the four issue areas identified. The four issue areas addressed in this paper (poverty and economic opportunity, child and youth development, health education and services, and crime prevention) were chosen for analysis because of the generally robust data and studies about those issue areas and potential impacts of interventions. It is more difficult to identify research regarding other areas articulated in the SIF legislation, namely civic participation, environmental conservation, and energy efficiency.

There are several reasons why research is not as readily available for interventions in these categories. One is an issue of definition; civic participation is not defined in the SIF legislation, and this phrase could carry different meanings for interventions. It is difficult to identify potential impacts for an issue area as broad and generally undefined as “civic participation.” Another issue is novelty; energy efficiency is a relatively new focus of government and private investment, at least as it pertains to social enterprise. Unlike other issue areas, impacts in these newer areas are not supported by robust literature or research. Before the government considers funding interventions in these relatively new or undefined issue areas, it must consider more specifically the goals it is aiming to achieve and what research is available to support those goals.

Interventions often accomplish multiple outcomes that cross issue areas. For example, a program in the area of economic opportunity might address issues of health, education, and job preparedness. An intervention might also accomplish multiple outcomes within one issue area. For example, an intervention aimed at reducing rates of teen pregnancy might also result in increased high school graduation rates. While it is important to recognize these multiple impacts, the tool allows for the assessment of only direct, expected impacts of the intervention rather than the assessment of multiple indirect outcomes. In using the tool, an evaluator must identify the primary impact of the intervention that he or she is assessing, and base all calculations on the data surrounding that particular impact.

The tool is only useful in comparing potential investments, rather than in evaluating a single investment alone. This research does not specify levels of social benefit that an organization should attain to be deserving of funding. Instead, the tool provides a calculation mechanism that evaluators can use to identify total social benefit, and then to compare this figure to that of other organizations to determine the portfolio of organizations that yield the highest social benefit. Future development of the tool might include the further identification of appropriate ranges or targets that could be achieved by individual interventions across different issue areas. This may prove difficult, however, due to the nature of innovation as constantly changing. One can assume that social innovation relies on new and different interventions targeted at similar problems. It might be difficult for research to keep up with the very large number of different types of interventions to rigorously assess an appropriate social benefit for each of these

interventions. Instead, providing a mechanism whereby an evaluator can compare net social benefit amounts across different interventions allows for the evaluation of new and different interventions without the need to conduct thorough research and random control trials.

Overall, the tool serves as a framework rather than a static measuring device. As mentioned, the nature of innovation is that it is constantly changing and evolving. As new programs and interventions develop, the Social Innovation Fund might need to articulate new funding areas or new requirements based on these new interventions. The assessment tool, then, must also evolve. Whether through thorough testing or simply repeated use, evaluators should be able to recognize opportunities to improve the tool and to adapt it to meet changing needs. Beyond the case studies highlighted in this paper, the tool has not been thoroughly tested on a large number of organizations. In order to ensure that the tool is of most use to a wide range of organizations, the tool should be systematically applied to several different types of interventions across issue areas. The pilot phase of funding for the Social Innovation Fund provides an opportunity for testing the tool's utility and for making adjustments accordingly. Further research might attempt to test the tool on a larger number of organizations chosen at random, rather than those that have self-selected to apply for SIF funding.

In applying public funds to social enterprise investments, an ideal evaluation of investments would be purely objective. This assessment tool is analytical in nature, and is useful for assessing potential investments without bias. However, the tool cannot completely control subjectivity but instead provides a place for subjectivity or preference in analysis to be captured. An evaluator might identify an impact or domain they wish to prioritize in the tool. Evaluator preference can be accounted for by applying a weighting system. By weighting different elements of the tool (particular impacts or domains), the evaluator can ensure that interventions scoring highly in those areas score highly overall. For example, an evaluator might primarily be interested in the intervention's impact on compensation, and might weight this interest as twice as important as the other impacts. In order to prioritize this domain, the evaluator would weigh the compensation row by a factor of two to ensure that the intervention with the greatest impact on compensation receives the highest score and, therefore, the investment dollars.

A challenge in using the tool is that inputs rely solely on self-reported data from organizations. While organizations, particularly 501(c)3 social enterprises, are required to capture certain financial and operational data for their Form 990s and other exemption purposes, few organizations collect economic data on their interventions or beneficiaries in any standard way. Similarly, designers of interventions do not always develop programs with positive net social benefit in mind. Program logic models and theories of change instead typically rely on achieving beneficiary-focused outcomes with little regard to secondary impacts. In order to use this tool effectively, however, organizations and their evaluators must not only possess robust data regarding economic and other indicators, but they must be able to project the impact their programs would have with additional resources. It is safe to assume that this data collection and analysis is not within the capacity of most social enterprises either because organizations lack the resources to be able to systematically collect this data or they lack the internal

expertise to analyze the data. Without robust and accurate data, the tool is ineffective at accurately predicting net social benefit of potential investments.

This leads us to a key recommendation regarding the social enterprise sector as a whole: focus on data. Several others in the sector have called for an enhanced focus on standard data collection among different types of organizations.^{20, lxxxviii, lxxxix} That call is echoed here, not only for accurate use of the investment tool but in making an overall case for investment in social enterprise. One must employ data to develop any correlation between social enterprise and economic development. In order to move beyond simply relating the work of individual organizations to economic development and social impact, one must look at the social enterprise sector as a whole. Therefore, this focus on data is crucial. Organizations must consistently collect and report the same data, both for ease of comparison as well as to assist in painting an accurate picture of the sector as a whole. Developing a consistent data collection model that is relatively straightforward and not resource-intensive is certainly a challenge, and an excellent opportunity for future research. In the short term, though, the CNCS should consider developing a robust and easy to understand application form for completion by applicants to the SIF. Beginning with this relatively small cohort of organizations, the CNCS can take the lead in identifying data collection mechanisms that are useful for its own grant making purposes. The CNCS can also use the 5% of the SIF focused on research and evaluation in supporting promising applicant organizations in their data collection efforts.

In addition to creating a standard application, the CNCS will have to rely on established measures of social benefit impact as they relate to applicants' proposed interventions. The CNCS should consider the sources identified in this report as reliable and evidence-based in identifying measures of social benefit. Additionally, government-sponsored and peer-reviewed research are the best sources for identifying future measures.

There are other uses for the 5% of the funding set aside for evaluation and research. While an organization might present a compelling proposal and score highly in social impact, it will be important to incorporate expert opinion into the evaluation of funding proposals. Expert researchers and practitioners in each of the CNCS' funding areas would have a strong sense of the key problems encompassed in that issue area, and would understand the types of interventions that historically have proven successful in addressing these problems. These experts could evaluate proposals based on their practicality given the experts' experience. Of course, it will be important to maintain objectivity in this analysis of practicality. Similarly, some social enterprises are innovative simply because their solutions seem impractical when in fact

²⁰ In their recent report "SROI Act II: A Call for Next Generation SROI", REDF acknowledges that calculating accurate social return on investment requires standardized data. REDF report culminated in a call for the development of a standard platform or vehicle for the collection and analysis of relevant data. Several other leading funding organizations, including the Rockefeller Foundation and the Acumen Fund (among others), are developing the Impact Reporting and Investment Standards framework, or IRIS. The goal of IRIS is to "create a common language for measuring environmental and social impact," particularly by for-profit social enterprises and businesses. The intent is to create a common framework to define, track, and report on the performance of impact capital, with a close focus on data collection and analysis.

these interventions achieve unparalleled results. Expert evaluators will need to be sensitive to the nature of innovation while connecting past, proven strategies and results to the proposals at hand. Developing a mechanism by which expert evaluators might review proposals, presents an opportunity for further research.

The CNCS should also engage in robust post-investment evaluation, preferably by funding third party assessment. At the end of the grant cycle, interventions should be evaluated based on their outcomes and impacts, as well as on their internal capacity achievements. The tool bases its social impact measure on pre-investment *estimates* of impact rather than on actual, realized impact. Third-party evaluators can assess actual impact to determine whether or not these estimates were accurate. The work of the evaluators can also be used to improve the tool itself.

For example, if upon review of the SIF portfolio at the completion of the funding cycle, evaluators determine that none of the organizations were able to achieve their predicted impact, this information can be extremely useful in strengthening or modifying the evaluation tool, both in the indicators articulated as well as in the calculation of impact. Findings from this third party evaluation can also lend themselves to the discussion of data collection; if evaluators find that organizations are unable to accurately collect appropriate data, those leading the data collection charge can use this information in creating tools that meet the challenges articulated through the evaluation process. As in engaging expert evaluators, developing a standardized audit procedure for use in post-investment evaluation is another opportunity for future research.

Other Uses and General Recommendations

Thus far, the development and analysis of the tool has focused specifically on its use by the CNCS to evaluate applicants for awards of the SIF. However, there are opportunities for others to utilize this framework in making investment or program planning decisions. Private investors, whether they be individuals or foundations, might wish to maximize their social impact through investments in non-profit social innovation; applying this framework will allow for comparison of social impact of their potential investments. Private investors would use this framework in almost exactly the same way as is recommended for the CNCS, using the same step-by-step process articulated above.

Social entrepreneurs may also wish to use the tool for program planning and development purposes. In creating and refining an intervention, an entrepreneur might wish to understand impacts beyond those that directly benefit the consumers of the intervention. They might use the framework as a tool to guide understanding of the methods by which the investment might impact the Government Budget or the market as a whole. The entrepreneur might also wish to go beyond just an overall understanding and make predictions about the intervention and its potential impacts. The tool can be used to quantify the potential impacts and to identify areas where the intervention could improve or develop to have greater impact.

There are other factors that the CNCS (and funders of social innovation in general) should consider in making investments with government funds. First, the CNCS should focus specifically on scaling innovative interventions, rather than on solely building a network of large organizations. Of course, sustaining and scaling effective interventions requires scaling complementary investments in infrastructure and overhead. The CNCS should not solely focus investment on program expenses while neglecting overhead costs. However, this investment should be targeted towards program expenses and overhead needed to support the promising intervention alone, rather than building a larger infrastructure for an organization designed to deliver many programs.

Additionally, while this research has not focused on organizational capacity, ensuring that an organization has the capacity to deliver on its proposed intervention must be a priority. An intervention might outshine many other applicants with its social impact score, but without the ability to support the intervention, that social impact will never be achieved. There are several established mechanisms for evaluating organizational capacity of non-profits that are easily transferred to assessment of social enterprises.²¹ The CNCS (and any investors) must give assessing capacity equal priority in deciding in which interventions to invest.

²¹ Generally accepted internal indicators of organizational capacity include issues of sustainability and issues of efficiency. Sustainability issues include having varied sources of revenue; having acceptable financial ratios of program expenses to operational expenses; and having a solid talent recruitment and retention plan and track record. Efficiency issues include having a strong program logic model or theory of change; measuring program statistics and outputs; and developing networks with others to share resources and best practices.

Finally, as described previously, the CNCS and investors in social innovation must recognize that the nature of innovation is that it is constantly changing and evolving. This and other evaluation metrics will need to evolve with the interventions as they are developed and perfected. Unlike the traditional non-profit sector, which relies on essentially standard and static interventions for solving community problems, innovation makes it difficult to predict what's coming next in terms of impactful interventions.

Funders of social innovation must be willing to adjust expectations and change with the changing environment. To encourage innovation, funders must be willing to accept higher levels of risk than might be encountered in traditional social service settings. However, with careful data collection and evaluation of interventions, the impact of these innovations on their beneficiaries and society as a whole has the potential to greatly outweigh these risks.

Conclusion

The social enterprise field is at a crossroads. While the field has been the focus of countless innovators, academics, and entrepreneurs for years, the creation of the White House Office of Social Innovation and the Social Innovation Fund has ignited a renewed focus on this field. Government investment in social enterprise has the potential to scale innovative, promising interventions to bring broader, more comprehensive solutions to our nation's challenges. However, unless government and other investors are careful, supporting social enterprises on a broad scale could do more harm than good by causing market inefficiencies or by investing in interventions whose social market impacts are less than the cost to run the program. Investing with public money in particular requires greater accountability in ensuring that investments are in fact achieving net social gain.

The Impact Assessment Tool proposed in this paper provides a mechanism to determine predicted net social benefit of an investment and to create an investment portfolio that maximizes social benefit. Measuring impacts across four key funding areas (poverty and economic opportunity; child and youth development; health education and services; and crime prevention), the Impact Assessment Tool provides the first step in enabling the comparison of net social benefit and to understanding how investment in social enterprises could spur economic gain.

Investment in social enterprise may well be a key tool to addressing our communities' seemingly intractable problems. A key challenge for the social enterprise sector in addressing these problems remains: comprehensive data collection. Without robust and standard data collection mechanisms, it becomes difficult if not impossible to articulate social impact of potential investments. The White House Office of Social Innovation has a unique opportunity to leverage its position to lead the charge on data collection and analysis for social enterprises. Working together with researchers, economists, entrepreneurs, and practitioners, the White House Office of Social Innovation and the Social Innovation Fund can strengthen and develop the sector to provide the solutions that our communities need.

Appendix 1. Research Methodology & Approach

The project was divided in three distinct phases. In the first phase, we assessed the general field of social enterprise and its emergence in today's society. We also performed a thorough literature review of methods of social enterprise and social innovation evaluation. In order to broaden our reach of resources, our group conducted interviews with several social innovation thought leaders, social enterprises, non-profit organizations and academics. At the same time, our group started analyzing the concept of net social benefit and formulating different ways to capture this figure.

During the second phase, our group narrowed our project focus to pre-investment assessment of social innovation rewards while maintaining the value of capturing the net social benefit of a social enterprise or innovation. We devised a preliminary tool that would analyze a specific intervention by its different impacts and sub-impacts with respect to the individual, government and society. This preliminary tool established the basis for evaluating social enterprises and innovations in four different sectors: (1) poverty reduction and increased economic opportunity, (2) child and youth development, (3) health and (4) crime reduction as pre-defined by the CNCS.

Lastly, in the third phase, our group narrowed calculation methods for each impact and utilized the revised tool to provide empirical examples through case studies. These calculation methods involved a thorough literature review, reiteration of basic cost-benefit equations as well as the application of our own intuition. For each sector, we chose a sample case study to apply to our tool. In sampling different organizations, we found various net social benefit values, ranging from negative to very high. Our last task was to create a guide in utilizing the tool and provide recommendations for further research.

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Appendix 3. Child and Youth Development

Summary of STI cost estimates (in 2006 US dollars) and selected parameter values applied in the formulas^{xc}

Parameter	Value Applied		Range Applied
	Females	Males	
Direct medical costs			
Average cost per case of PID [23-25]	\$1,995	NA	±50%
Average cost per case of epididymitis [26]	NA	\$274	±50%
Average sequelae costs per case of syphilis [5]	\$572*	\$572*	±50%
Average cost per case of chlamydia [5]	\$315	\$26	±50%
Average cost per case of gonorrhea [5]	\$343	\$68	±50%
Average cost per case of syphilis [5]	\$572*	\$572*	±50%
Average cost per case of HIV [6]	\$198,471	\$198,471	±50%
Average cost per case of congenital syphilis [1,64,65]	\$6,738	\$6,738	±50%
Indirect (lost productivity) costs			
Average cost per case of HIV	\$831,614	\$831,614	±50%
Average cost per untreated case of chlamydia [85]	\$148	\$13	±50%
Average cost per untreated case of gonorrhea**	\$171	\$34	±50%
Average cost per untreated case of syphilis**	\$112*	\$112*	±50%
Average cost per case of chlamydia**	\$47	\$10	±50%
Average cost per case of gonorrhea**	\$47	\$10	±50%
Average cost per case of syphilis**	\$112*	\$112*	±50%
Average cost per case of congenital syphilis**	\$60,412	\$60,421	±50%
Other parameters			
Absolute reduction in probability of sequelae due to treatment: chlamydia**	0.16	0.03	±90%
Absolute reduction in probability of sequelae due to treatment: gonorrhea**	0.14	0.03	±90%
Adjustment to chlamydia costs averted to account for gonorrhea coinfection**	0.925	0.925	±5%
Adjustment to gonorrhea costs averted to account for chlamydia coinfection**	0.79	0.90	±5%
Adjustment to account for reinfection: gonorrhea and chlamydia**	0.70	0.70	±25%
Probability of congenital syphilis given untreated syphilis in mother [63]	0.50	NA	±50%
Number of cases of STI averted in population per STI case treated**	0.50	0.50	±90%
Probability of a new case of HIV attributable to chlamydia [70]	0.0011	0.0011	±90%
Probability of a new case of HIV attributable to gonorrhea [70]	0.0007	0.0007	±90%
Probability of a new case of HIV attributable to syphilis [70]	0.02386	0.02386	±90%
Adjustment for time frame for STI attributable HIV infections**	0.25	0.25	±90%
Adjustment for partner overlap (heterosexuals) [57]	0.75	0.75	±25%
Adjustment for partner overlap (MSM)**	NA	0.50	±25%
Additional adjustment for averted HIV costs for MSM**	NA	0.25	Not varied
HIV cases averted per person counseled and tested [78,81]	0.00045	0.00045	±90%
Adjustment for repeat counseling and testing**	0.875	0.875	±10%

*The average sequelae cost per case of syphilis was set equal to the average cost per case of syphilis (and the indirect cost per case of syphilis was set equal to the indirect cost per case of untreated syphilis), because when calculating the costs of syphilis we allowed for the possibility that treatment of syphilis would have occurred (even in the absence of the STI program) before the cost of sequelae.

Appendix 4. Quality Job Scorecard

Quality Job Element	Objective	Measure	2006	2007	2008
Compensation	<i>Provide family sustaining wages</i>	1. Average wage/hour	\$9.49	\$9.78	\$9.96
		2. Average benefits/hour	\$2.40	\$2.42	\$2.45
		3. Average compensation (wages + benefits)/hour	\$11.89	\$12.19	\$12.41
		4. Percent of revenue to HCWs' wages & benefits	82.2%	80.3%	80.4%
	<i>Ensure balanced workloads with full-time work hours</i>	1. Average weekly hours	35.97	37.58	37.35
		2. Average percentage of workers who worked per week	95.2%	96.5%	95.8%
		3. Average percentage of workers who worked (per week):			
		a. ≤ 30 hours per week	27.8%	24.2%	23.8%
		b. >30 - 40 hours per week	34.6%	34.2%	34.6%
		c. >40 - 56 hours per week	33.2%	35.3%	36.5%
		d. >56 hours per week	4.4%	6.3%	5.0%
Opportunity	<i>Provide excellent training</i>	1. Number of cycles for the year	9	9	10
		2. Average percentage of workers who completed the HHATP and were employed	72%	78%	72%
	<i>Participate in decision making</i>	1. Percentage of HCWs who are Worker Owners (includes all eligible HCWs after one year of employment)	68%	66%	68%

Workforce Support	<i>Retention/Turnover</i>	1. Number of workers at the start of the year	925	1014	1085
		2. Number of workers at the end of the year	1014	1085	1195
		3. Attrition Details			
		Discharged Lost Contact	40	43	54
		Discharged	32	48	58
		Discharged - CHRC	0	2	13
		Retired	4	3	6
		Job satisfaction	4	4	9
		Moved	20	33	13
		Other Job	24	26	27
		Other	0	1	1
		Family Responsibility	21	27	28
		Illness	31	52	54
		School	6	10	4
		Employment Authorization	6	3	4
		Avoid Discharge	0	1	0
		Personal	20	35	9
		Hours	1	1	0
		CHAP Transfer	0	0	20
		Total number	209	289	300
		Turnover Rate	25%	30%	28%

Appendix 5: Costs of Crime

Victim Costs

VICTIM costs									
	Productivity	Medical Care/Ambulance	Mental Health Care	Police/Fire Services	Social/Victim Services	Property Loss/Damage	Subtotal: Tangible losses	Quality of life	Total
Rape & Sexual Assault	3300	750	3290	55	40	150	7630	121780	130000
Other Assault	1400	635	110	90	24	39	2320	11670	14000
Robbery	1400	555	100	195	69	1122	3440	8525	12000
Drunk Driving	4200	2100	120	60	37	2400	8975	17800	27000
Arson	2600	1645	27	1500	?	23190	29170	27000	56000
Larceny	12	0	9	120	?	400	550	0	553
Burglary	18	0	8	195	2	1450	1645	450	2100
Motor Vehicle Theft	67	0	8	210	8	4940	5235	450	5500

Source: Ted Miller, Mark Cohen, & Brian Wiersema, U.S. Department of Justice, Victim Cost & Consequences: A New Look.(1996). Full text at <http://www.ncjrs.org/txtfiles/victcost/pdf>.

*Table has been adjust to reflect 2009 dollars from <http://data.bls.gov/cgi-bin/cpicalc.pl>

Offender Costs

Offender Costs	
Category	2009 dollars
Lost wages	\$20,440/yr

Source: Cohen, M.A. (2005). The Costs of Crime and Justice. (New York: Routledge).

*Table has been adjust to reflect 2009 dollars from <http://data.bls.gov/cgi-bin/cpicalc.pl>

Criminal Justice Costs

Estimated Criminal Justice Costs

Offense	2000 dollars	2009 dollars
Murder/homicide	183000	229735
Rape	3250	4080
Robbery	7730	9704
Aggravated Assault	5150	6465
Burglary	2580	3238

*Reported to police

Source: Adapted from Cohen, Rust, Steen, and Tidd (2004). "Willingness-to-Pay for Crime Control Programs," Criminology. 42(1):86-106.

All figures in 2009 dollars by
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