Social Returns on Investment (SROI):

A proposed modified method for Nonprofit Organizations (NPO's)

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Dedication

This thesis is dedicated to ***Shrini Acharya***, my father, and ***Dimple***, my fiancée who have always been the force driving me towards success in life.

Abstract

Literature has suggested that the common practice ignores measuring or considering the social impacts associated with the return on investment in different programs. The generic trend and emphasis laid on calculating and using just the Economic Return on Investment (EROI) was challenged in this study and the importance of measuring Social Return on Investment (SROI) was identified. "Although a number of guidelines and reporting standards have been advanced since early 1990's, no framework has yet been articulated for quantifying the value of a company's impact on people and a community's environment" (Lingane & Olsen, 2004).

This study aims to apply engineering management skills in organization with a focus on social returns on investments. This paper took into consideration three main factors that affect the existence of an organization: stakeholders, investment by the stakeholders, and returns to stakeholders. The purpose of the study was to develop a model to measure the social returns on investments by NPO programs. The current research followed a new approach. The modified tool was used to calculate the SROI for three social service community programs conducted by Community Action Duluth (CAD), a nonprofit organization in Duluth, Minnesota.

The results from Program 2 showed the SROI of 267%, compared to the EROI of 258% using the proposed method. The SROI value is higher and should be considered a more reasonable indicator of the program success. Thus, it can be stated that EROI values may not always be a true indicator of all the NPO program outcomes and returns. The

current research findings support and claim that, SROI methodology is an equally and especially in case of NPOs, a better indicator of the returns on investments.

The results imply that, care should be taken while assigning a dollar value to the outcomes created and in making conclusions about returns on investment, to prevent any false and artificial claims of outcomes which may not be caused because of the program. Lastly, recommendations and future work are discussed.

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Chapter 1: Introduction

Engineering Management is the field concerned with the application of engineering principles to the planning and operational management of organization's functions. Engineering Management typically focuses in accounting, engineering economy, financial management, management of information systems, mathematical modeling and optimization, quality control, operations research, safety and health issues, and environmental program management. The term can be used to describe either functional management or project management (Mazda, 1998). This study aims to apply engineering management skills in nonprofit organizations with a focus on social returns on investments.

In most current situations (in private and the public sector) managers run their businesses lacking full information about what impact their operations and services have on the environment and human well-being. The pressure from shareholders to achieve financial returns is so high on the managers that, they often overlook the importance of optimizing the company's impact on human well-being due to their efforts. "Although a number of guidelines and reporting standards have been advanced since early 1990's, no framework has yet been articulated for quantifying the value of a company's impact on people and a community's environment" (Lingane & Olsen, 2004).

The main focus of this paper is on Social Returns on Investments (SROI) in nonprofit organizations (NPO). An organization is defined in this paper, as a nonprofit unit which strives to pursue collective goals, has control on its own performance and has a specific boundary separating it from its environment. This paper will take into

consideration three main factors that affect the existence of an organization: stakeholders, investment by the stakeholders, and returns to stakeholders (Richmond, 2008).

Since organizations operate on economic as well as "man" power, the question of what the people stand to gain at the end is begged to be solved (Mintzberg, 1971). All organizations include human resources as well as economic resources. These resources are gained through investments made by the internal and externally involved stakeholders. Monetary investment as well as the skills, knowledge and positive efforts of the organization's members, all contribute to the development of the organization. Thus, calculating only the monetary or financial returns of the organization does not present a true reflection of the organization's overall benefits to community. Thereby, determining the social returns on investments (SROI) is rapidly becoming a more realistic measurement of work systems (Heinrich & Lopez, 2009).

Nonprofit organizations that mainly operate by a philosophy driven by "social causes" have traditionally varied from a for-profit organization, primarily because the nature of their returns is so different. In the current economic times, the calculation of returns has become an increasingly important issue, but the same is extremely difficult to measure in NPO's. This study is conducted in a descriptive method which presents the scenario of organizations that focus on social returns of investment. Further analysis is conducted with three different types of return values: economic, social and most importantly, socio-economic (Richmond, 2008).

1.1 Problem Statement

All Organizations face immense pressure and competition in today's growing world economy (Clark et.al, 2004). Increasingly, to succeed as a manager, proper management skills and creation of positive return on investment to the organization is becoming very important. A challenge faced by managers is to show positive returns to other stakeholders while gaining and holding their trust. A study by Lingane & Olsen (2004) has shown that social performance figures, in conventional financial statements are not an important number majority of firms consider, but are only examined and reviewed by selected few firms. For example, social performance figures were observed in cases where the social or environmental practices were absolutely poor and were brought into light by diminishing sales, share prices and goodwill (Lingane & Olsen, 2004). In cases such as this, the financial or economic value of returns on investment served as weak and poor predictors of the outcomes and benefits (Burton, et al., 1995).

A study is needed, which combines the two factors (Economic Returns and Social Returns), aiming to compute socio-economic value to get social returns on investments (SROI). Such study could help demonstrate the effectiveness of the proper managerial functions, outcome value determination and appropriate use of financial and individual investments.

1.2 Project Objectives

The main objective of this research paper is to emphasize the shortcomings of relying and using only economic returns as a measure and indicator of the true returns to the organization and community. Literature that studied the use of the Returns on Investment (ROI) methods to measure the financial benefits gained was reviewed. The

current study rather, focuses on the need for computing the socio-economic value of return on investment and it is hoped thereby that stakeholders can gain a clearer picture of the value created by organizations. The current study also proposes a modified SROI framework which will be applied on three social community programs conducted by Community Action Duluth (CAD), an NPO in Duluth, Minnesota.

1.3 Constraints and Limitations

Time constraints forced the author to sample programs of the Community Action Duluth (CAD) nonprofit organization in Duluth, Minnesota. These programs consisted of participants referred to CAD by St. Louis County and the State of Minnesota.

A limited number of families participated in three different programs at CAD, meaning that the sample was stratified and of small size. The available data from participating families and the organization's operations and outcomes are used for the analysis, based on the descriptive design where factual data will be obtained from the non-profit organization.

1.4 Project Approach

Although this thesis paper began with trying to calculate SROI for any organization (For-Profit and Non-Profit), the focuses only on calculating the SROI for Non Profit Organizations.

Three NPO programs administered by Community Action Duluth (CAD) have been selected and the returns on investment (ROI) and social returns on investment (SROI) will be measured. Also, the proposed modified SROI method will be

implemented on these three programs to test if it is a more reasonable measure of socio-economic outcomes compared to the presently used ROI methods. Here ROI and SROI will function as the model to compare the various constructs of the research. The case study using CAD programs will provide additional information that should supplement research and future studies that focus on the calculation of appropriate SROI for any organization and not limited to NPO's.

1.5 Thesis Organization

Chapter 1 has recognized the problem areas and proposed a need for a modified SROI method to be tested. A succinct approach of the research was also clarified. Chapter 2 includes the literature review on returns on investment (ROI) with specific focus on the three types of return values: economic, social, and socio-economic. Literature review will mainly explore social returns on investment (SROI). The methodology followed in the research study would be explained followed by test results and discussion. Conclusions based on the findings, recommendations and areas of future research would be discussed. The last part of the thesis would include references followed by appendices.

Chapter 2: Literature Review

2.1 Introduction

In the business world, an organization is operated by individuals and its functions affect the organization as well as its environment, considering both its physical as well as societal impact. The main purpose of any organization requires that the goal is to achieve tangible positive and measurable results. There are many stakeholders that contribute to the function and results of an organization including: management, employees, users or consumers of the service or program, governmental agencies, and society at large (Lane, 2006).

2.2 Who are the Stakeholders?

Stakeholders can be defined as **"**a person, group, organization, or system that affects or can be affected by an organization's actions" (Phillips, 2003). Stakeholders can be internal and external. Figure 1 visually indicates the internal stakeholders including the owner(s), manger(s) and employees and external stakeholders who include customers, suppliers, general society and the government, in the form of its various agencies focusing on taxation, regulation, and services.

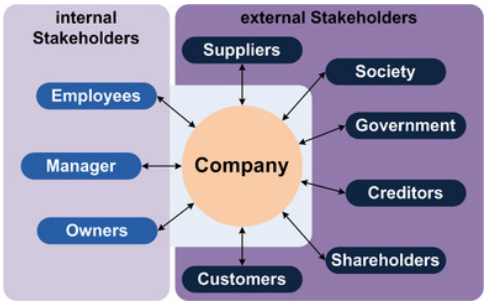

Figure2. 1. Internal and External Stakeholders

Source: Redefining the Corporation (Post, Preston, 2002)

The concept of the stakeholder was developed in 1963 at the Stanford Research Institute. It defined stakeholders as "those groups without whose support the organization would cease to exist." The theory later was built upon and advocated by R. Edward Freeman in the 1980s. Since the 1980's then the concept of the stakeholder has become relative in business practices and in hypothesizing concerning strategic management, corporate control and corporate social responsibility (CSR).

Stake holders in the current study can be defined as those groups listed in Table 2.1 and the outcomes and returns scenario of the same:

Table 2.1- Stakeholders in Community Action Programs

Key Stakeholders	**Outcomes**	**Returns Scenario**
Federal government	Reduction in case load	Dollars saved or avoided, tax generated exceeding expenditure
State government	Reduction in case load	Dollars saved or avoided, tax generated exceeding expenditure
Local government	Increase in economic development, job creations	Boost in community's economy
Funding Foundation	Efficient and effective use of funds.	Maximum returns on investment would enable decision making for future programs
Agency	Reduced client dependency on public and private human service system	Increased positive outcomes: less dependency on welfare and increased self sufficiency for participants
Tax Payers	Efficient and effective use of funds. Participants will be off welfare thus reducing dollars spent	Increased productivity demonstrating increased self sufficiency and less dependency on government, including welfare (human

		services), police and prisons.
Program Participants	Increased income, employment benefits, less use of subsidized programs	Increase in self-sufficiency is expected to have a significant positive impact on their lives.

2.3 Returns on Investment (ROI)

Investment can be termed "the investing of money or capital in order to gain profitable returns, as interest, income, or appreciation in value." ROI is a measurement that clearly links the investments and their results (Richmond, 2008). According to Egger, "America is still incredibly generous" with its efforts in investing in social good, however he raises the question of their use. Are the expenditures really being applied for genuine and real purpose? Return on Investment is usually applied to for-profit businesses, primarily since the owners demand an adequate accounting with a resulting of defining a measurable profit or loss from an investment. These ROI's are usually expressed in a percentage return for example 15% either with or without a consideration of the true cost of the capital going forward. In sum, ROI gives a comparison between total costs and total benefit. Benefits or returns are often categorized in the form of economic, social or socio-economic returns.

2.3.1 Economic Value

According to Richmond (2008), "economic value is created by taking a resource or set of inputs, providing additional inputs or processes that increase the value of those inputs. And thereby generate a product or service that has greater market value at the next level of the value chain", an example might be a computer, an automobile, or a credit card issued to a customer.

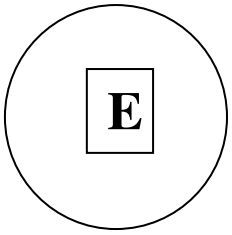

Figure2.2The Economic Value created by any project could be represented by the dollar value of the outcome/s

2.3.2 Social Value

Social value is "when resources, inputs, processes or policies are combined to generate improvements in the lives of individuals or society as a whole" (Richmond, 2008). Most nonprofit organizations operate mainly on this principle, and thereby face difficulty in measuring the true value created by their efforts. An example might be an Adoption Promotion Program.

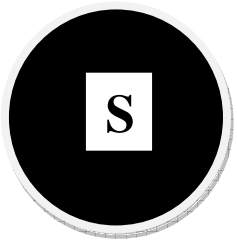

Figure2.3 Social Value is the intangible value created by any project which is difficult to measure in dollar terms

2.3.3 Socio-Economic Value

Socio-economic value is developed as a measurement that attempts to merge economic value with social value. Since economic value is derived from economic activities across the planet, it has developed standardized measures and thereby is easy to measure when the strict accounting rules that govern the outcomes are followed. Conversely, measuring social value is challenging as it has outcomes that are beyond

measurement (or at least difficult to measure) for example how much the intervention program impacts the patients? However, it should be possible for values to be assigned to these intangibles. Interestingly, socio-economic value is built on a base of economic value creation with an attempt to quantify and incorporate certain elements of social value. Socio-economic value can be created by considering resources, inputs or processes followed by increasing the value of these resources and then generating cost savings for the agency as well as the settings the entity is part of (Richmond, 2008). However, properly accounting for these rather intangible or difficult to appropriately assign values makes socio-economic value most difficult to calculate.

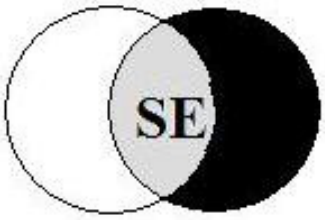

Figure2.4: Socio-Economic Value could be measured by assigning dollar values to the social impacts created

2.4 The Carter-Richmond Methodology

The Carter-Richmond methodology is the most widely used measurement tool to calculate Return on Investment (ROI) in nonprofit organizations, which was devised by Reginald Carter (Richmond, 1999). This methodology identifies ten key management questions in terms of three broad areas: service, outcome and evaluation. These areas include values such as clients served, services provided, results observed, and returns gained (Richmond, 2008). However, this method does not compute (economically measureable) social returns on investments (SROI).

2.5 Social Returns on Investment (SROI)

All organizations have an impact on the social environment in which they exist, and these impacts are not always purely monetary, but often can only be measured in terms of value added to the society, including employment created or higher education achieved. According to the Volunteer Center Organization a nonprofit organization, SROI is "the non-financial outcomes created by a social enterprise, measured in terms of the nonprofit's mission, e.g. people served, jobs created or average salaries paid." (http://volunteercenter.org). Contrastingly, according to Lingane & Olsen (2004), SROI is "A term originating from return on investment (ROI), as used by traditional investors. It describes the social impact of a business or nonprofit's operations in dollar terms, relative to the investment required to create that impact and exclusive of its financial return to investors" (Lingane & Olsen, 2004) but rather the return to greater class of stakeholders.

Not surprisingly, the literature in this area reflects the confusion in defining what SROI is precisely. Thus, the current study will propose a method to compute SROI and apply it at CAD to determine the usability and applicability of the new proposed framework.

2.6 Calculating SROI

According to Olsen & Lingane (2003), "a Cost-benefit analysis is typically carried out either at the outset of an investment to determine whether it is likely to generate benefits superior to the next best alternative, or retrospectively to determine whether the investment was worthwhile. Social return on investment differs from cost-benefit analysis in two critical ways." Firstly, SROI is a management tool that is more practical, assisting knowledgeable decision-making on a daily basis. A traditional social cost-benefit

assessment is not employed by managers when making business decisions in the short term; rather, it is used sporadically to discover the least expensive method to present benefits or to diminish negative effects to all vital stakeholders, meaning a strategy which involves least risks. Secondly, "SROI enables managers to maximize both social and financial benefits. By contrast, cost-benefit analysis typically frames benefits and costs as trade-offs and does not facilitate planning or prioritizing that optimizes both financial and social value creation." (Olsen & Lingane, 2003).

Review of literature shows that a SROI methodology was employed by two organizations: Global Social Venture Competition (GSVC) and the Roberts Enterprise Development Fund (REDF), for profit and nonprofit organization respectively. While the GSVC SROI method included five steps when computing SROI (Olsen & Lingane, 2003), the REDF SROI analysis method consisted of two broad areas, measuring value and measuring returns, with these two areas further divided into three stages to compute these measures (www.redf.org).

2.6.1 NEF Model

The New Economics Foundation (NEF) defines Social Return on Investment (SROI) as "a framework for measuring and accounting for the broader concept of social value. It seeks to reduce inequality and environmental degradation and improve wellbeing by incorporating social, environmental and economic costs and benefits." It uses the term "social value" to include social, economic and environmental values. This model clearly classifies the two types of SROI analysis. Type I is Evaluative, this is conducted by looking back on definite outcomes that have already taken place thus, it conducts an analysis of past events. The second type of analysis classified as Type II is a Forecast tool,

which predicts how much social value will be created if the activities meet their anticipated outcomes. This type of SROI analysis is more useful in the planning stage of any activity as it suggests expected outcomes for the future events. SROI analysis can be conducted using Microsoft's Excel software and basic accounting skills. Typically, SROI analysis will consist of six stages as listed below:

Step 1. Establishing scope and identifying key stakeholders:

Questions addressed are what is the purpose of the SROI analysis, for whom the analysis is conducted, what are the objectives of the organization, or the specific activity for which the analysis is to be conducted what are the available resources for example staff, time or money, who would conduct the analysis, and is the SROI analysis Type I, evaluation of past events or Type II, a future prediction of planned events.

Step 2. Mapping outcomes:

At this stage an Impact Map is constructed which is considered central to any SROI analysis. An Impact Map is defined as a map that "details how the activities you are analyzing use certain resources (inputs) to deliver activities (measured as outputs) which result in outcomes for stakeholders". It gives a clear overview of what are the 'inputs' from the stakeholders, and what results or 'outcomes' these inputs generate. These outcomes are then clearly described.

Step 3. Evidencing outcomes and giving them a value:

Outcome indicators are developed at this stage. Indicators show how long the outcome lasts, and a value is assigned to the outcome. These indicators are used to collect data or evidence on occurring outcomes. A caution to be kept in mind is that the indicators must be measurable, for example, number of people who got full time job or increase in earned income.

Step 4. Establishing impact:

Assessment is conducted to find out what the 'true impact' is, one considers if the outcomes are a result of the organization's planned activities or the results of some other factors. Impact is calculated in terms of percentages. This analysis helps clarify the outcomes as the sole result of the organization's activities and thus it does not displacement of inputs and investments by the stakeholders using outcomes not directly contributed by the specific investment under study. In case there are outcomes which are not results of the inputs there is 'deadweight'. Deadweight is measured in terms of percentage which is further deducted from total percentage of outcomes. 'Displacement' occurs when there is no impact or the outcome observed was a result of some other factor and not a result of the organization's planned activity.

Step 5. Calculating the SROI:

All financial information gathered in previous stages is summarized at this stage. Financial value of investments and financial value of social costs and benefits is calculated

here. Steps involve projecting values of all outcomes forward, calculating the present value by adding all the values of impact and subtracting the discounts given.

SROI is calculated by dividing the discounted value of benefits by the total investment.

$$\text{SROI ratio} = \frac{\text{Present Value}}{\text{Total Investment}}$$

Step 6. Reporting, using and embedding:

After completing the SROI analysis, the results must be communicated and reported to the stakeholders. Results are used for future planning and finally the SROI process must be implanted or embedded in the organization for future analysis.

According to this model, there are advantages as well as limitations for the SROI measurement. Advantages of this model are that it helps to identify the common grounds between what the organization needs to achieve and what the stake holders would like to achieve. It is highly useful measure at the strategic phase to design the setup of a plan for market testing and, it helps target appropriate resources at managing unexpected outcomes, especially negative outcomes. However, limitations of this model are for example the difficulty in defining good outcomes for an activity or the difficulty when an activity has already been implemented before predicting the SROI value. This method is time-consuming and may take several months for the analysis.

2.6.2 REDF Model

The Roberts Enterprise Development Fund's (REDF) SROI structure combines financial and social impact data together and produces six key SROI metrics. The results of this SROI analysis, in addition to business analysis and social impact outcomes, are then summarized in an SROI Report. SROI analysis is conducted in two parts and six stages. Information essential before conducting the analysis is income statement (sales, expenses, depreciation, grants), balance sheet items (accounts receivable, inventory, accounts payable), total outstanding debt, outstanding cost of debt, average cost of debt, economic data, debt to equity ratio, capital expenditures and social impact data (cost savings, new tax revenue, number of employees) [www.redf.com]

Part 1: Measuring Value

The value metrics present the organization's social and financial impact, by representing the total projected value generated in dollar amount.

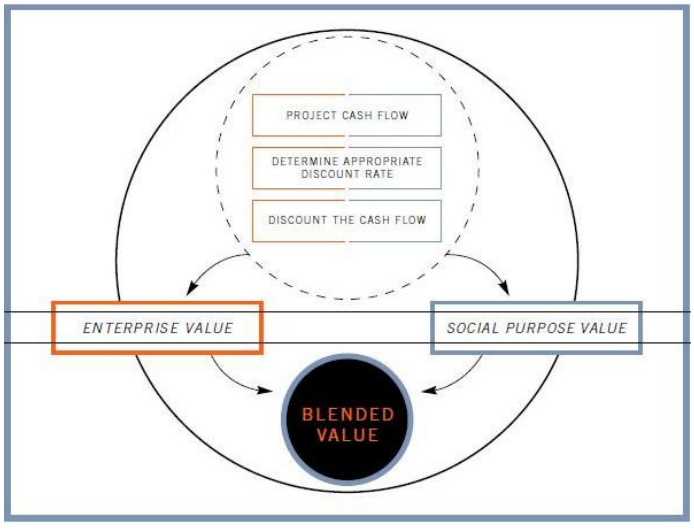

Figure2.5. Measuring Value

Stage 1: Calculate Enterprise Value

Enterprise's value is calculated by forecasting its cash flow and then discounting its free cash flows, using an appropriate discount rate. Step 1 is projecting cash flows based on cash generation by the enterprise in previous and current years. Step 2 is calculating the terminal value to capture value created beyond the ten years period. A standard perpetuity formula used is:

Terminal Value = Cash Generated in Terminal Period / Discount Rate.

Step 3 is to discount the cash flows using the Weighted Average Cost of Capital (WACC) as a discount rate. This is calculated using the cost of equity, cost of debt and debt-equity ratio. This completes the enterprise value calculations and leads to stage 2 of SROI calculations.

Stage 2: Calculate Social Purpose Value

Estimates of future social purpose cash flows are conducted; terminal value is calculated and then discounted using the appropriate discount rate. These calculations include public sector savings and tax revenue. This value is assigned and thus may not be a real dollar value. Steps include, projecting the number of target employees, calculating average social cost savings per target employee, determining the incremental increase in income tax, projecting social operating expenses, which are then subtracted from the inflow of cash, and determining the cash flow to calculate social value. All of these measures are used to produce the present value of social purpose cash flow or the Social Purpose Value.

Stage 3: Calculate Blended Value

Blended value is generated by adding Enterprise Value and Social Purpose Value.

Part 2: Measuring Return

The function of the SROI metrics is to compute the monetary return on an investment in a social purpose enterprise. This is computed by understanding how much amount was invested in the social purpose enterprise, how much monetary value was produced, and then comparing the investment to the value created using an Index of Return.

$$\text{Index of Return} = \frac{\text{Projected Value created in the future}}{\text{Investments to date}}$$

Stage 4: Calculate Enterprise Index of Return

Enterprise Index of Return is calculated by dividing Enterprise Value (its projected cash flows discounted to a present value) by the investment to date. This calculation is very complex and difficult in most organizations.

Stage 5: Calculate Social Purpose of Index of Return

Similar to the above sage, this value is calculated by dividing Social Purpose Value by the social purpose enterprise's investment to date.

Stage 6: Calculate Blended Index of Return

The Blended Index of Return is a combination of enterprise and social purpose index of returns. It compares the Blended Value and the investment to date. It presents the return on both business and social mission activities, compared to the investment to date.

2.7 Summary

In sum, SROI works on the principle that all services produce an outcome, and the outcomes should have a value however this value may not always be monetary. The agency decides how they want to define an outcome and then assign a numeric value to it (Whitely et al., 2006). This should be compared to 'for profit' organizations where the measure is clearly a dollar invested to dollar gained. However, in public sector businesses the definition of outcomes needs to be expanded from terms of dollar to a measure of the benefit accruing back to the society at large. Although the models mentioned above in the Literature review have shown a ballpark method of calculating the Social Return on Investment, there are certain limitations and shortcomings of such methods. The framework used in those two methods may not be used to compare two different projects as the variable change and it is always difficult to show correlation between different measurements and variables. Another limitation of the above mentioned methods are that a lot of data is required to carry out the analysis, which may be a difficult to gather in the case of NGO's who may not maintain substantial amount of data compared to the 'for profit' private organizations.

This study indicated with emphasis that SROI can help organizations and companies identify opportunities to create social value and enhance financial value (Lingane & Olsen, 2004). A simple example of this might be an organization like Nike building a playground in a depressed town which enlivens the children of marginally employed families, and then using the cost of this construction and land as a charitable donation reducing their tax burden. It is obvious that the playground has a great social ROI but the monetary ROI is dropped directly to Nike's bottom line (as a tax benefit) and through potential future sales of sport shoes in this and neighboring communities.

The study further proposes a modified SROI framework drawing from the two currently available methods and tests it on a nonprofit organizations program. There is a dire need for a standardized measure for computing SROI and findings of this study would be extremely beneficial to get close to that.

Chapter 3: Methodology

3.1 Introduction and Study Design

Nonprofit organization's programs are constantly aiming to prevent and improve life skills to face challenges such as problems related to employment, finance, health, and psychological wellbeing. Thus, programs' costs and outcomes determine the cost savings and overall benefit gained. However, these cost savings are often difficult to present in numbers which becomes a limitation while presenting the true analysis of the program. Also, due to privacy policies there is ongoing difficulty in getting access to all the financial values and statistics from government agencies that would help in determining the 'actual' cost savings that can be attributed to social programs (Sandra, 2010).

Concurrent with the literature review and limitations discussed in Chapter 2, the three models used to measure Social Return on Investment were reviewed and some limitations were found. A new model is proposed to try to measure the social impact and value created by social community programs. In addition to the obvious benefits generated and total costs saved, the model would try to measure the possible or 'not so obvious' social costs avoided and the positive or negative social impact created due to the existence of such programs.

3.2 Defining Parameters

Before calculating the Social Return on Investment it is important to define the parameters well. It is important to know who are the stakeholders in the program, what are the direct costs incurred, what direct benefits are created, what are the foregone opportunity costs, what are the external costs and external benefits, and so forth.

If the total outcomes from any project are more than the total investments, the project has created a documentable Return on Investment. On the other hand if the total foregone costs (opportunity costs) are greater than total social benefits, the project has not created a positive ROI. Therefore it is very important to clearly define the parameters to provide an accurate measure of values during the analysis. It should also be noted that values should not be double counted during analysis. Another issue while conducting SROI analysis, is falsely or accidently claiming responsibility for some outcome(s) which may not be directly related to the program. Using these outcomes to calculate the SROI may be misleading.

Several of these important parameters that are used in this analysis are explained below:

Direct Costs: According to the definition by the government "Direct costs are those costs that can be identified specifically with a particular sponsored project, or that can be directly assigned to such activity relatively easily with a high degree of accuracy" (Nash, Jr., 2007). These are the direct costs associated to the program. Usually they include staff salaries and operational expenses and these represent the majority of the expenditures for any social program since there is no major equipment or manufacturing costs like in an automobile company. Other examples of costs that would be direct project costs include insurance, office equipment and stationary and supplies, transportation and conveyance costs and other miscellaneous charges (Dahm, 2003).

External Costs: "An external cost, also known as an externality, arises when the social or economic activities of one group of persons have an impact on another group and when

that impact is not fully accounted or compensated for, by the first group" (Busquin & Ruiz, 2003). Any Forgone or Opportunity costs that would originally not be taken into account by organizations may be called External Costs. An example of external costs would be climatic environmental degradation costs. These kinds of costs may usually apply to other industries and there is very little evidence that these costs would be applicable to Non Profit Organization's (NPO's) running community programs.

Direct Benefits: These are direct benefits accrued due to the existence of such programs. In the case of NPO's running community programs, examples of these kinds of benefits include among others: direct income from employment, cost savings from prevention of dependency on public welfare, and improving health care access of the community. On the other hand, in the private sector or 'For Profit' organizations, a direct benefit would be revenues generated and profits from any new product development, etc. Some activities such as a new technology implementation or designing a new product have a clear measurable dollar value which can be measured by its selling price and quantity. However, it is not as easy to put a dollar value (market value) for other activities such as improved quality of life, health care access, reduction in environmental degradation, or reductions in policing or law enforcement costs.

External Benefits: These are unintentional benefits to the community from any programs or projects. External benefits can also be benefits of any programs or activity received by public other than individuals who pursue the program or activity (Keohane & Olmstead, 2007). For example, the government may spend money in the local economy on various projects but in return, unintentionally, jobs are created in the agricultural sector or a suppliers operation in the manufacturing, transportation, or services sector. Any such

unintentional economic impact caused due to the existence of the program would be classified as an external benefit.

***Social Opportunity costs**:* These costs include the monetary costs of products or services plus any other foregone costs. For example, if a doctor provides free care for a patient without insurance, he or she is foregoing the possibility to attend to some other patient who may have insurance. In this case the possibility of generating a higher bill instead of charging a subsidized payment level to the patient without insurance would be a foregone opportunity cost (Sandra, 2010).

In context with this paper, in most of the community action programs there are a many documented instances where health care service providers have to deal with uninsured persons (and of course there would be the direct costs associated with loss of tax revenues due to the deductibility of these services by the physicians and health care providers) and hence it is important to consider these costs when performing the SROI calculations.

Social Discount Rate: According to Caplin & Leahy (2004), any investment made now may give returns in the future and measuring the value of the future returns in today's value is referred to as a Net Present Value (NPV) analysis. In order to compare these two values, a discount rate is used (Caplin & Leahy, 2004). The private sector and the public sector have different ways to measure the discount rate. The public sector uses the ongoing market interest rate as the discount rate, but for this analysis, the author proposes using a discount rate of 7% as that is the current value recommended by the Office of Management and Budget. (www.whitehouse.gov)

Shadow pricing: Shadow pricing permits quantitative estimation of return and can assist in the recognition of the impact of interventions. This is an economic concept developed over the last century which suggests that the market price does not reflect the true value of that product or service to the community. In other words, shadow pricing is the *true value* of the product to the community, and not the "market price" of the product or service (Moore & Shepherd, 2006). To better explain this concept, an example will help to clarify the concept. Given that a person who is previously employed with a company changes his/her job and joins another company for a slightly higher salary, although there is a slight economic gain for the individual, the community has actually gained nothing (neglecting a marginal increase in tax revenue) as there has not been a new job created. The new company which hired this person may benefit a little form his/her services, but the community has not experienced any 'increased' benefit from that person's change in jobs. In the case of measuring SROI for community action programs, this concept of shadow pricing would make sense, as in certain programs the participants are unemployed and gain new employment at the end of the program, hence possibly creating a community benefit because of a new job created (Kuosmanen & Post, 2001).

Cost allocation: Cost allocation is an accounting technique to identify and categorize costs by department or the project. Many costs can be directly associated with the project or program as direct costs but, in some cases where there are multiple programs using the same resource, cost allocations have to be made (Dahm, 2003). For the analysis to be performed here, a direct cost allocation method will be used which employs the direct costs of the programs and, for the shared resources, the total indirect costs will be divided by the number of programs run in that organization. Although cost allocations can be

subject to judgment, the direct cost allocation method can give a very good estimate of the costs for programs in community action agencies as they do not usually have a lot of complexities found in organizations that use hi-tech equipment (like CNC Machine tools or robots and main frame computers), have huge factory space, a large work force with multiple shifts and so forth (Lemaire, 1998).

3.3 Cost Reductions: Public Welfare Cost Saving

One of the major costs incurred to the state and federal government due to unemployment is the welfare payments provided. Many forms of welfare are provided as determined using different participant profiles. Most unemployed individuals eventually begin to receive welfare benefits from the State or Federal government, after their unemployment insurance coverage's have expired (Magill, 2003). With approximately 800,000 people unemployed, this represents a significant outlay from the Federal Budget, money that could be utilized elsewhere. The different types of welfare assistance provided include cash assistance, food stamps, medical assistance, child support, emergency assistance, case management costs and other costs like legal services, etc.

The total Public cost savings would be the total of these costs reduced/avoided/eliminated per participant, multiplied by the total number of participants over the period of the program.

3.4 Measuring Social Impact Cost Savings

3.4.1 Education, Unemployment and Criminal Convictions

Many people currently unemployed may have skills and training that are not being utilized productively. Thus the national income and production is not growing as if these people were gainfully employed. Unemployment represents a private cost to those directly affected by it through a loss of income, and if unemployment is long term, a potential detrimental loss of skills as well. Unemployment is a major social cost to any community. Research has shown that unemployment can be associated with lower levels of education that is, lower level of education associated with lesser opportunities to get job, higher levels of family breakdowns, alcohol and drug abuse, and criminal activities and convictions. Lochner & Moretti (2003) stated "If education reduces crime, then schooling will have social benefits that are not taken into account by individuals" and in many ways this is the goal of many of the NPO's that form the basis of this study.

Concurrent with the past literature, the National Center for Education statistics show that, the average yearly cost to educate a student in the USA is $9,644, while the cost per inmate to go through the justice system was $22,600 for the year 2004. The total incarceration costs for the country in 2005 was $50 billion as stated by the Bureau of Justice Statistics. Literature shows a clear relationship between lower level of education and higher level of unemployment. Higher the educational level, lower the rates of unemployment. Also, the government is allocating large amount of funds to pay incarceration cost while, on the other hand, low levels of funds into education. Thus, it appears that even a small reduction in crime by a higher level of education may be economically beneficial (Lochner & Moretti, 2003).

According to an article by Will Goldberg (2007), in the journal *Political Economy of the Prison Crisis*, a 2002 Census Bureau study states that a lower level of education directly leads to reduced earnings over a lifetime. Florida State University calculated that its General Education Development program prevented the recidivism of about 100 people in prison per annum, saving that state approximately $1.9 million a year (Goldberg, 2007). Annette Johnson, a member of the Board of Directors of the Prisoners' Reading Encouragement Project, testified in 2000 that education was an essential part of criminal justice reorganization that would "make it more effective, indeed, more cost-effective in preventing crime and restoring convicted persons to the community with a constructive attitude and helpful skills that will allocate (sic) them to contribute to the economy and get back a wholesome place in family life" (Goldberg, 2007).

Societal savings are predicted to result from reduced recidivism, “a tendency to relapse into a previous condition or mode of behavior; *especially*: relapse into criminal behavior” (Merriam Webster’s Dictionary) and reduced crime rates when social program are implemented on a large enough scale (Magill, 2003). According to a further study, if the male high school graduation rates were increased by 5%, there would a possible annual criminal justice system savings of $5 Billion (Belfield et al, 2006).

3.4.2 Measuring Reduced Criminal Conviction Costs

Although it might not be possible to predict criminal activities or which persons will or are committing crimes, research has shown that the recidivism rates are very high in this country. A 2002 study shows that the recidivism rate in the United States was around 67.5% (Bureau of Justice Statistics). The costs per person going through the justice system vary from state to state. However, many of the social programs run by NGO’s and

of interest here, cater to unemployed people who may display many barriers to employment and higher incidence of recidivism, whom they try to assist and aid. This typically comes through placement into a fulltime employment in the private sector so that they can have a better life and also reduce welfare dependency costs to the county, state and country (MetLife Foundation, 2006). Thus, investing into education and NGO's is a benefit to the government as well as the public.

In order to determine if there are any additional social cost savings afforded by typical NGO employment programs, one way would be to calculate costs from having a reduced number of convictions among persons treated by such programs. To do that, first the number of participants enrolled in these programs who might be, statistically, expected to have been convicted of a crime must be found and then, from that expected number, the number of participants who were actually convicted during the duration of their enrollment in the program can be subtracted. The limitation with this method is that it only helps to evaluate past and current programs and would not be a true indicator to forecast social savings achieved in the future. All the data for calculating these values for evaluation can be taken from the participant enrollment forms which are completed when participants begin such programs.

To calculate the costs savings due to reduced criminal convictions, one can first note the total number of persons who have been convicted of a crime and who have never been convicted at the beginning and end of the program. To calculate the possible cost savings due to the program, one can now multiply the total number of persons ever convicted by the recidivism rate of the state in which the program is being run (The Minnesota Department of Corrections reported a recidivism rate of 24% in the year 2007

as compared to the 67.65% in California) and then, subtract the number of participants who were convicted after enrolling in the program.

So the ***Expected Cost Savings = ((The Total Cost per Person to go through the justice system) X (Number of people convicted) X (State Recidivism rate)) – Number of repeat convictions***

This method of calculating the cost savings by reduced convictions may not be the perfect measure of cost savings as, every sample set for every program may vary and this measure may not be a true indicator for programs where the participants do not have many barriers to regular employment. Although this method is questionable it is drawn from standard methods of calculating SROI.

Another method of trying to forecast the cost savings by reduced convictions and incarcerations is, by using statistical data from previous years to predict the probability of possible convictions and costs savings from those avoided per the program.

Table 3.1- Table of Occurrence; No of persons in the Justice system in 2006 (U.S.A.)

	All				Men				Women			
	All	White	Black	Hispanic	All	White	Black	Hispanic	All	White	Black	Hispanic
All ages	132	245	41	96	71	136	21	54	746	1064	279	658
Above 18	102	194	29	64	54	106	15	36	580	859	203	436
18-20	101	191	36	85	57	107	19	47	844	1235	382	571
21-25	52	103	17	41	30	59	9	24	345	453	157	289
26-30	53	103	17	42	29	59	9	26	333	443	140	328
31-35	54	92	17	46	30	53	9	27	270	343	108	300
36-40	63	104	19	55	36	61	10	32	265	355	100	297
41-45	76	124	24	66	43	71	13	38	352	500	125	358
46-55	153	266	45	101	83	148	23	55	893	1333	307	709
Above 55	837	1249	264	383	391	588	115	184	8333	1110	3571	3846

Source: All data has been taken from Bureau of Justice Statistics (BJS), "Prison and Jail Inmates 2007"

Table 3.1 above shows the rates of convictions of persons according to age, gender and race. This is national data and can be tabulated state wise for further use. For example, previous data shows that one in every 92 American white males between the age of 31 and 35 is convicted of some crime. Although, it is difficult to predict how many persons would or would not commit a crime, this data can be used to estimate the probability of a person's committing a crime based on the their race, gender and age. This data might not be a true indicator if one is trying to estimate possible conviction rates among 10 individuals, but this data would be of more significance if a larger sample size of 1000 or 5000 individuals is being studied.

For example, using the table above could say that if one of every 30 men between the age of 21 and 25 is convicted of a crime then, that around 66 persons in a sample of 2000 in this age bracket is likely to commit and be convicted of a crime. Also, it is important to notice the difference between being convicted and committing a crime – the issue is that committing a crime for which there is no conviction still leads to a cost to society that people would best have avoided (Peck, 2010) with avoidance made possible by better employment rates.

Using this method of estimation, we could suggest that certain employment driven programs can possibly create a positive social impact just by reducing the number criminal conviction costs.

As mentioned above, this method may not be an effective measure in this study due to its very low sample size, hence it will not be factored into the estimates of SRIO developed here but should always be considered on a case by case basis.

3.4.3 "Unemployment and Marginally Attached"

Any nation's unemployment rate is a good indicator of the overall labor market performance and the economy. As defined by the Bureau of Labor Statistics, "To be classified as unemployed, a person must be without work, be available for work, and have actively searched for work" (MetLife Foundation, 2006). Since most of the participants enrolled in socially driven programs typically exhibit many barriers to normal employment (including medical conditions, criminal history, lack of skills etc), it would not be a true indicator to consider them among the normal unemployed persons who may be unemployed due to the prevailing economic conditions. Social community programs

such as the ones run at CAD often aim to help participants gain employment and if such participants gain employment it is truly a social gain to the community as they were among the percentage of the population who had significant barriers to employment. The figure below shows the unemployment trend rates of the country over the last few years.

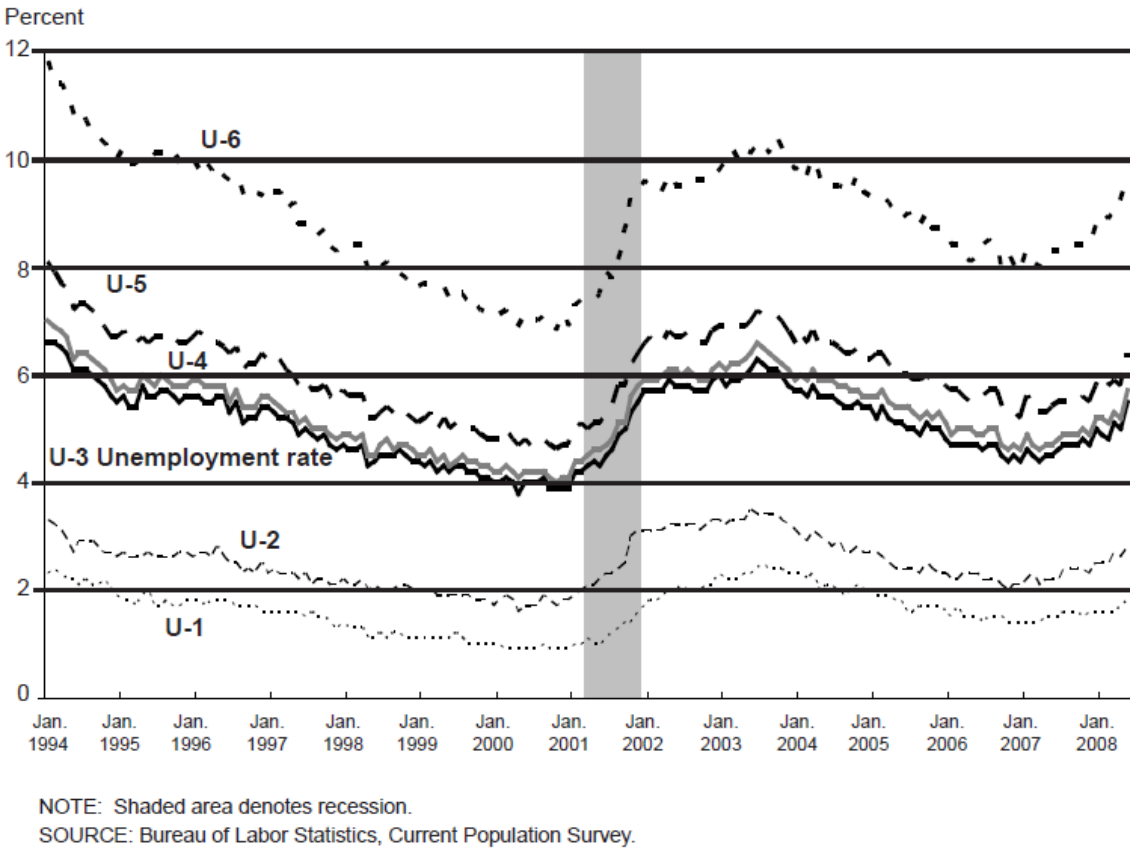

Figure3.1. - Unemployment trend rates of the country over the last few years

Legends
U-1 Persons unemployed 15 weeks or longer, as a percent of the civilian labor force
U-2 Persons who completed temporary jobs, as a percent of the civilian labor force
U-3 Total unemployed persons, as a percent of the civilian labor force (the official unemployment rate)
U-4 Total unemployed persons plus discouraged workers, as a percent
U-5 Total unemployed persons, plus discouraged workers, plus all other "marginally attached" workers, as a percent of the civilian labor force plus all "marginally attached" workers
U-6 Total unemployed persons, plus all "marginally attached" workers, plus all persons employed part time for economic reasons, as a percent of the civilian labor force plus

As seen in Figure 3.1 above, U3 is the official unemployment rates for the country in the last few years where as U6 represents the 'marginally attached' workers or persons with barriers. The social impact of any employment driven social programs is believed to be positive if the outcomes created due to these programs would reduce the overall gap between those two lines: U3 and U6 and reduce the unemployment rate of the target population relative to the general population. Here again, since a very small sample size of participants and programs is being considered, it would not be easy to determine and then extrapolate the exact social impact of the programs being analyzed, although these same calculations will be of significance while dealing with a larger sample size.

3.5 Modified- Proposed Steps to Computing SROI

1) Identify the Key Stakeholders

Stakeholders are all the people involved directly or indirectly with the project. They are persons who want to know what the outcomes of the project are as they may directly or indirectly be affected. There may be multi-levels of stakeholders associated with the project with varying interests in different outcomes. For example, A CEO of any business may be interested in the revenues and profits generated; whereas the state government may be interested in reducing the unemployment rate (and hence the costs of adjudication) as an outcome of the same project.

The first step of any ROI analysis should be to list all the possible stakeholders involved in the project. This could be a good way to identify the success of the program at its completion, by estimating the different returns on investment to the different stakeholders.

2) What are they investing?

The different investments from stakeholders could help identifying the nature and level of returns. Stakeholders could not only be investing money and time, but they could also be investing their trust, training, partnerships etc. in certain projects. For example, A $1million investment from the Federal government in some local county project may give returns to the local county, but there are chances that the returns are being double counted as a positive outcome measured both as a local project return on investments as well as nationally. Hence the source of income would help identify the local and national returns on investment as related to their sources of investments. A systematic way to list all stakeholders and the outcomes they are seeking would be by tabulating the relevant information.

Table 3.2, below, shows an example of listing down program stakeholders who and at what level they are involved in a typical NPO focusing on employment gains. This list of stakeholders would, likely, vary from program to program. The table typifies how a stakeholder should be listed and is not a complete list of stakeholders.

Table 2.2-An example of key stakeholder for a NGO program

Key Stakeholders	**Type of Investment**	**Outcomes**	**Value of Outcomes**	**Over Return Scenario**
Example: ***State Government***	***Money, Resources***	These are the benefits from the project that the investor is interested in. Example: Reduction in the number of	This is the dollar value of the outcome created. Example: 10 people were removed from government's welfare roles offering $5,270	The overall return would be measured in three levels, Short term, Medium/Intermediate term, and Long term outcomes. Example: *Short term outcome-*

		people on welfare because of some community program which help unemployed persons gain employment	monthly in cash assistance reductions and $4700 in food stamp reductions. So the total measurable outcome of the value created is $9,970	Reduced case load on welfare assistance *Medium term outcome*- Unemployment rate decreasing *Long Term Outcome*: Overall growth in community economy

3) Total Cost of Program?

Once all sources of investment are identified and allocated to the program, the broad list of activities to be carried out for successful completion of the program/project should be listed and measured in dollar value to allocate the costs involved per program. The direct costs incurred to the program would be any costs such as personnel, staff, supplies, transportation, etc. and indirect costs would be overheads and miscellaneous costs as listed above.

There are different methods for cost allocations including direct cost allocation or activity based costing. The method chosen for this analysis would be direct cost allocation which would identify the direct costs incurred plus indirect costs, with the total indirect costs divided by the number of programs. All evaluative analyses for completed projects could be conducted using data from the organization's accounting department with forecasted cash flows and returns on current or future projects included using a discounting method. A simple table for identifying the different costs associated with any program is shown in Table 3.3 below:

Table 3.3-Example of Total Program costs incurred to run a program in a NGO

Project Name: XYZ	
Project Duration: 24 months	
Total Costs for	Jan 2008 to Dec 2009
Direct Costs	$59,602.26
Administrative	
Rent and Maintenance	$2,500.00
Equipment purchase and maintenance	$850.00
Technology Upgrade	$500.00
Audit expenses	$300.00
Insurance	$300.00
Postage and Delivery	$100.00
Printing and Reproduction	$300.00
PR & Communication	$250.00
Publications/memberships	$400.00
Other	$300.00
Supplies	$3,350.00
Training And Travel	$2,000.00
Total Indirect costs	$11,150.00
Total Cost of Program	$70,752.26

4) ***Total Measurable Outcomes***

These are actual impacts/benefits/changes for participants during or after being enrolled in the program. For example, any employment program outcomes could be measured by the number of job placements and their worth. All the direct incomes received due to the unemployed persons now being employed would be a measure of the outcome created as this amount did not exist before, since the participant was not employed before joining the program. Program outcomes are actual impacts/benefits/changes for participants during or after being enrolled in the program. These can be analyzed in comparison to what the program proposed to achieve and what it actually achieved at the end (New York State Department of Social Services, 1990). These outcomes can further be classified by their duration being short term, medium term and long term. Any persons gaining full time employment due to some program would result in a long term benefit to the participant and also the community. Whereas, any person just being employed part time would not necessarily be a long term outcome and rather be classified as a short term or medium term outcome. To make any program really successful in the long run, the short term outcomes should be analyzed and improved upon (Heinrich & Lynn, Jr., 2000).

Table 3.4 outlines the major outcomes created by an employment program. As seen here, it is easy to identify the number of participants who were fully employed and hence their self-sufficiency level would said to be good or secured, which means it's a long term outcome created. Organizing all the outcomes created by a program in such a tabular form helps the stakeholders and concerned manager get a quick snapshot of the outcomes created and hence makes any further decision making somewhat easier.

Table 3.4-Overall Program Outcome Measure which shows the number of participants gaining employment and the level of self sufficiency achieved.

Year	2008-2009	Total No of Participants enrolled			100
Program Type	Employment	Total participants Employed			56
Self Sufficiency	**Outcome Value Created**	**Average Income per participant**	**Total Employed**	**% Success**	**Total Incomes**
Secure: Good	Full time	Above Minimum	8	8%	$312,000
	Income	39,500			
Exposed: Weak	Part Time	Above Minimum	28	28%	$403,200
	Income	13,400			
Emergency: Very Weak	Part Time	Minimum	20	20%	$144,000
	Income	7,200			
TOTAL			56	56%	$859,200

5) ***Total Measurable Cost Reductions***

As mentioned earlier, apart from the incomes generated due to an unemployed person gaining employment which would be a direct benefit, there is also a major reduction in costs which occur due to the avoidance of welfare support. According to a recent bill passed by the US House of Representatives in 2009, the welfare costs in the United States would be around $787 billion for the next 10 years (www.heritage.org). As a direct outcome of employment, the participant would stop receiving welfare assistance. Hence it is important to measure the cost reductions to calculate the actual outcome or benefit created by a program. Table 3.5 summarizes all the different costs avoided by the participants being removed from the different welfare benefits. The table below is, again, just an example to show the costs reduced.

Table 3.5-Total cost reductions due to reduced or eliminated public assistance use by program participants

	Total Decrease (Increase) in Annual Visits	Average Cost per Visit	Total Decrease (Increase) in Annual Costs	Total Participants	Average Cost Reduction per Participant
Public Assistance Program					
EXAMPLE	5	$10	$50	2	$100
DWP (Diversionary Work Program)					
Child care Assistance					
General Assistance					
SSI					
MSA					
Food Stamps					
Social Service Programs					
Food Banks					
Case Management					
Community Clinics					
Mental Health Treatment					
Housing (Shelter, Transitional)					
Emergency Care Rooms					
Legal Services					
Substance Abuse Treatment					

6) ***Measuring Social Impact Cost Savings to Community***

As mentioned earlier in this chapter, External benefits are unintentional outcomes created but which are not usually accounted for by the NGO. In the case of NGO's running an employment program, the income earned from a job created is a direct benefit,

where as the cost reduced due to the person getting off welfare and becoming independent would be a social benefit. It would be fair to claim that there are other external benefits which are not easily identifiable and tangible. For example, the employed person is now less likely to be convicted of a crime and hence the possible recidivism costs saved due to the job created; this could also include the costs avoided of a person going through the justice system.

Using the available participant data for NGO's under study, the author would use the following formula:

Expected Cost Savings = (The total cost per person to go through the justice system) X (Number of people convicted) X (State Recidivism rate) – (Number of repeat convictions)

For example: If four participants out of the five with a prior conviction record stayed out of prison during the two years of employment they gained in an intervention program,

The cost savings would be = [5X25% (Recidivism rate in Minnesota)-1] X $22,600(Average cost of a person going through the justices system in the US) = $5,650/Year

Another way of calculating this would be by using the Probability table which shows the number of persons incarcerated to estimate the possible cost savings see Table 3.1 above.

One more possible way of measuring the external benefit attributed to programs is by measuring the percentage of jobs created out of the total number of participants and comparing that with the difference in percentages of the general unemployment rate and the unemployment rate for "marginally attached" as shown in the Department of Labor Statistics figure in the earlier section. Since this study is constrained to the availability of sufficient data, it would be difficult to actually use this method in these calculations.

7) Total Economic Gain

This is the direct economic benefit created due to the program. For example, income from job created.

Total Economic Gain = Total Income from all employed – Total Costs of program

8) Total Social Cost Reductions

This is all the costs avoided by getting off public welfare assistance.

Total Social Cost Reductions = Total Costs avoided X Number of Persons

9) Total Economic Return on Investment

Any Economic Return on Investment compares the investment returns and total costs incurred as a ratio or percentage. In most ROI methods, the investment is said to return more than the costs incurred if the ROI ratio is greater than 1.00 or a percentage more than 100%.

$$EROI\ (in\ percent) = \frac{Total\ \ Economic\ Gain + Total\ Social\ Cost\ Reductions}{Total\ Costs\ of\ Program}\ X\ 100$$

10) Social Impact Created (Positive, negative)

The total social impact created and the social return on investment not only measures the economic gain and the social cost reductions, but it also includes the possible social impact cost savings. Although it is good to have a positive social impact number, it may be difficult to claim that all programs having a negative social number should be scrapped or discarded given the fact that many social impacts are intangible and difficult to measure and hence they may not appear in these calculations.

$$\text{SROI} = \frac{(\text{Total Economic gain} + \text{Total Social Cost Reductions} + \text{Social Impact Cost Savings})}{\text{Total Investments in the program}} \text{X } 100$$

3.6 Data Collection Plan

Since all data collected for calculations were secondary (existing) data, no approval from the Institutional Review Board (IRB), [a board that has been formally elected to review, approve, and monitor any research involving human subjects with the aim to protect the rights and welfare of the research subjects] was required. None of the data were individually identifiable. Other major sources of data were from the publicly available websites provided by the Department Of Justice, Department of Labor Statistics etc, and from the NPO 'Community Action Duluth' (CAD). Data were gathered and analyzed using the above modified proposed model. All the data regarding costs incurred were collected from the accounting department of CAD and other participant information such as welfare assistance, food stamps, child care assistance and etc was collected from St. Louis Count, Duluth Minnesota through CAD advocates.

The following Data Analysis chapter will analyze and summarize the findings.

Chapter 4: Results and Discussion

4.1 Introduction

This study was based on building a model that was introduced in Chapter 3. The results of the model testing will be analyzed and discussed in this chapter. The data collected from CAD's programs would be analyzed to determine the social returns on investments (SROI).

As discussed in Chapter 3 secondary data was used for this research. The data collected where publicly available, through Community Action Duluth (CAD), an NPO in Duluth, The State of Minnesota and United States Governmental websites as well as past research studies, and Census data.

A total of 127 participants were involved in the three CAD programs. 31 (24%) participants were involved in Program 1, Help and Opportunities in Pursuit of Employment (HOPE), and 96 (76%) participants were involved in Program 2 and 3, Bridges to Employment and Jump Start Program. The following data was obtained from CAD:

Total program costs for all three CAD programs are shown in Table 4.1. These are the direct costs associated to the program, obtained from CAD financial statements for 2008 and 2009, with a Direct Cost Allocation Method being used to identify individual program costs. Usually direct costs include staff salaries and operational expenses and these represent the majority of the expenditures for any social program. Total program costs also include indirect or administrative costs that would include rent, insurance, office equipment and stationary, supplies, transportation and conveyance costs

and other miscellaneous charges. In this table, it can be seen that the total program cost for all three CAD programs for 2008 and 2009 was $393,767.16 (Community Action Duluth, 2010). These data will be used for SROI analysis further in the chapter.

Table 4.1-Total Program costs for all three CAD programs for 2008 and 2009

Program Costs	**Jan 2008 to Dec 2009**
Direct Costs	$326,867.16
Administrative Costs	
Rent and Maintenance	$15,000.00
Equipment purchase and maintenance	$5,100.00
Technology Upgrade	$3,000.00
Audit expenses	$1,800.00
Insurance	$1,800.00
Postage and Delivery	$600.00
Printing and Reproduction	$1,800.00
PR & Communication	$1,500.00
Publications/memberships	$2,400.00
other	$1,800.00
supplies	$20,100.00
training and travel	$12,000.00
Total Administrative costs	$66,900.00
Total Program Costs	**$393,767.16**

Social Cost Reductions for Program 1 (HOPE) shown in Table 4.2 is $74,688.00, and $223,752.00 for Programs 2 and 3 (Bridges to Employment and Jump Start Program)

shown in Table 4.2. Total cost reductions from all three programs was $298,440, a substantial reduction in costs.

Table 4.2-Social Cost Reductions for Program 1(HOPE) in 2008 and 2009

(Community Action Duluth, 2010)

	Total amount per month	**Annual costs avoided**	**Number of participants**	**Total for two years**
Public Assistance Program				
Child Care Assistance	$220.00	$2,640.00	1	$5,280.00
Cash Assistance	$273-$532	$16,668.00	4	$33,336.00
SSI	$0.00	$0.00	0	$0.00
Food Stamps	$473.00	$5,676.00	2	$22,704.00
Social Service Programs				
Case Management	$0.00	$0.00	0	$0.00
Housing (Shelter, Transitional, GRH)	$230-$327	$6,684.00	2	$13,368.00
Emergency Care Rooms	$0.00	$0.00	0	$0.00
Total				**$74,688.00**

Table 4.3-Social Cost Reductions for Programs 2&3-Bridges To Employment and Jump Start Program in 2008 and 2009

(Community Action Duluth, 2010)

	Total amount per month	**Annual costs avoided**	**Number of participants**	**Total for two years**
Public Assistance Program				
Child care Assistance	$210.00	$2,520.00	6	$30,240.00
Cash Assistance	$273.00	$3,960.00	16	$63,360.00
SSI	$0.00	$0.00	0	$0.00
Food Stamps	$473.00	$5,676.00	11	$124,872.00
Social Service Programs				
Case Management	$0.00	$0.00	0	$0.00
Housing (Shelter, Transitional, GRH)	$440.00	$5,280.00	1	$5,280.00
Emergency Care Rooms	$0.00	$0.00	0	$0.00
Total				**$223,752.00**
Total for all three programs				**$298,440.00**

For Program 1(HOPE), eight participants were employed during the two year period of 2008 and 2009. Table 4.4 shows the Incomes from the eight employed participants. The incomes from employed participants in Program 2 (Bridges to Employment) are shown in Table 4.5, and from Program 3 (Jump Start) are shown in Table 4.6. The tables below list only employed participants and states the type of employment gained, either full time or part time. A participant working for a minimum of

40 hours a week was considered to be employed full time. To calculate the annual income, the wage per hour was multiplied by the numbers of hours worked in a week multiplied by four weeks a month multiplied by 12 months a year. The data for total income tax paid was calculated using the tax brackets as per the Federal and State government websites.

The column indicating the Poverty line threshold was measured according to the US Department of Health and Human Services Poverty Guidelines, 2009 which indicates if the participant is above the poverty line or below it.

The proposed modified SROI framework in this study shown in Table 4.7, drawing from the two currently available methods was tested on three social service community programs conducted by Community Action Duluth (CAD).

Table 4.4-Incomes from Program 1 (HOPE) Participants in 2008 and 2009

(Community Action Duluth, 2010)

No	Full time/Part Time	Wage/Hour	Hours per week	Monthly Incomes	Annual Income	Tax Paid in 2008	Tax Paid in 2009	Total Income in 2008 and 2009	Taxes paid in 2008 and 2009	Poverty Line
1	FT	$19.00	40	$3,040.00	$36,480.00	$8,043.84	$8,043.84	$72,960.00	$16,087.68	NO
2	PT	$10.36	30	$1,243.20	$14,918.40	$2,289.97	$2,289.97	$29,836.80	$4,579.95	NO
3	PT	$9.25	30	$1,110.00	$13,320.00	$2,044.62	$2,044.62	$26,640.00	$4,089.24	NO
4	PT	$8.00	32	$1,024.00	$12,288.00	$1,886.21	$1,886.21	$24,576.00	$3,772.42	NO
5	PT	$9.80	20	$784.00	$9,408.00	$1,444.13	$1,444.13	$18,816.00	$2,888.26	YES
6	PT	$7.50	25	$750.00	$9,000.00	$1,381.50	$1,381.50	$18,000.00	$2,763.00	YES
7	PT	$7.25	20	$580.00	$6,960.00	$1,068.36	$1,068.36	$13,920.00	$2,136.72	YES
8	PT	$7.25	16	$464.00	$5,568.00	$854.69	$854.69	$11,136.00	$1,709.38	YES
Total								**$215,884.80**	**$38,026.64**	

Note

Tax brackets were used for calculations from the Minnesota revenue website
Federal tax rates – 10% to 16%
State tax rate- 5.35%
Poverty line guidelines was taken from US Department of Health and Human Services (http://aspe.hhs.gov/poverty/09poverty.shtml)
Average Family Size is three persons; one adult and two children

Table 4.5-Incomes from Program 2 (Bridges to Employment) Participants in 2008 and 2009

(Community Action Duluth, 2010)

Participant	Average Income/hr	Hours Per week	Average Income per week	Monthly Income	2008 and 2009	Tax Paid	Poverty Line
1	$8.13	25.00	$203.13	$812.50	$19,500.00	$3,900.00	YES
2	$8.00	32.00	$256.00	$1,024.00	$24,576.00	$3,194.88	NO
3	$7.80	22.50	$175.50	$702.00	$16,848.00	$1,684.80	YES
4	$7.80	30.00	$234.00	$936.00	$22,464.00	$3,369.60	NO
5	$7.80	15.00	$117.00	$468.00	$11,232.00	$1,684.80	YES
6	$7.80	30.00	$234.00	$936.00	$22,464.00	$3,369.60	YES
7	$7.28	40.00	$291.00	$1,164.00	$27,936.00	$4,190.40	NO
8	$7.28	40.00	$291.00	$1,164.00	$27,936.00	$2,793.60	NO
9	$7.25	25.00	$181.25	$725.00	$17,400.00	$1,740.00	YES
10	$8.00	40.00	$320.00	$1,280.00	$30,720.00	$4,608.00	NO
11	$9.40	32.00	$300.80	$1,203.20	$28,876.80	$4,331.52	NO
12	$10.36	40.00	$414.53	$1,658.13	$39,795.20	$5,969.28	NO
13	$8.00	30.00	$240.00	$960.00	$23,040.00	$3,456.00	NO
14	$11.00	30.00	$330.00	$1,320.00	$31,680.00	$4,752.00	NO
15	$7.50	*Total employment was 250 hours in 2 Years*			$7,500.00	0	YES
16	$7.50	*Total employment was 250 hours in 2 Years*			$6,000.00	0	YES
TOTAL					**$357,968.00**		

Table 4.6-Incomes from Program 3 (Jump Start) Participants in 2008 and 2009

(Community Action Duluth, 2010)

Participant	Employment	Wage/hour	Hours per week	Previous Annual Income	New Annual Income	Incomes for 2008 and 2009	Old Income for 2 Years	Difference in Incomes 2 Years
1	Yes	$16.50	40	$24,420.48	$31,680.00	$63,360.00	$48,840.96	$14,519.04
2	Yes	$9.74	35	$14,527.32	$16,363.20	$32,726.40	$29,054.64	$3,671.76
3	Yes	$10.25	8	$3,736.92	$3,936.00	$7,872.00	$7,473.84	$398.16
4	Yes	$9.50	40	$6,315.84	$18,240.00	$36,480.00	$12,631.68	$23,848.32
5	Yes	$9.30	40	$14,007.48	$17,856.00	$35,712.00	$28,014.96	$7,697.04
6	Yes	$23.35	40	$15,624.00	$44,832.00	$89,664.00	$31,248.00	$58,416.00
7	Yes	$9.00	40	$3,702.24	$17,280.00	$34,560.00	$7,404.48	$27,155.52
8	Yes	$12.97	40	$16,637.16	$24,902.40	$49,804.80	$33,274.32	$16,530.48
Total Income from Program								**$152,236.32**

Table 4.7-Proposed-Modified Model for Computing SROI used for calculations

Proposed-Modified Model for Computing SROI

Step 1: Identify the Key Stakeholders

Step 2: What are they investing?

Step 3: Total Cost of Program?

Step 4: Total Measurable Outcomes

Step 5: Total Measurable Cost Reductions

Step 6: Measuring Social Impact Cost Savings to Community

Step 7: Total Economic Gain

Step 8: Total Social Cost Reductions

Step 9: Total Economic Return on Investment

Step 10: Social Impact Created (Positive, negative)

4.2 Data Development

In today's world it is very important for an organization, either a 'for-profit', or a 'not-for-profit' organization to demonstrate the value it is creating through its very existence and the different programs and projects they run. The ten steps of the proposed modified model, as listed in Table 4.7 for SROI calculations will be applied to the HOPE program at CAD.

Program 1: Help and Opportunity in the Pursuit of Employment (HOPE)

Step 1: Identify the Key Stakeholders

In the case of 'for-profit' organizations stakeholders demand it, while in the case of 'not-for-profit', agencies, grant funders and community partners want to see the impact of their investment. Table 4.8 lists all stakeholders for CAD's Program 1 (HOPE). It must be noticed that the government, county and other funding agency have a major involvement in such programs and hence in its social returns on investments.

Step 2: What are they investing?

For most of the business organizations the bottom line is to create economic value and generate maximum profits, thus knowing what the stakeholders are investing is the next important step. As shown in Table 4.8, the various government and similar agencies mostly invest in monetary terms, while the human resource and the participants are high on physical investments such as their time and efforts. For example, the advocate at CAD helps the program participant analyze their current situation, make efforts to strengthen skills to apply for job, retain current jobs and make efforts to improve quality of life.

Table 4.8-Key stakeholders for CAD's Program 1 (HOPE)

Key Stakeholders	**What are they Investing?**	**Outcomes**	**Value of Outcome**	**Returns Scenario**
State government	Money, 2009 Stimulus Package	Reduction in case load		*Short term*: Dollars saved or avoided, tax generated. *Medium Term*: Reduced Welfare Costs. *Long Term*: Lower Unemployment rates
St. Louis County	Money, Resources	Increase in economic development, job creations	Total Cost savings of $74,688.00	*Short term*: Job Creation *Medium Term*: Reduced welfare costs, Economic Development. *Long Term*: Boost in Community Economy
Funding Foundation (Family Collaborative Grant)	Money	Efficient and effective use of funds.	Effective use of funds with positive SROI	*Long Term*: Effective use of funds showing Maximum returns on investment would enable decision making for future programs
Agency (Community Action Duluth)	Resources, Training, Education, Advocacy	Reduced client dependency on public and private human service system	8 participants employed	*Long Term*: Effective use of funds showing Maximum returns on investment would enable decision making for future programs
Tax Payers	Money Indirectly	Overall economic development and efficient use of their money	Tax revenues generated due to employment	*Long Term*: Effective use of funds, Reduced funding towards welfare, effective use of funds in other directions such as education, infrastructure

Program Participants	Time, efforts, money	Increased income, employment benefits, less use of subsidized programs	Total Income earned= $215,884.80	*Short term*: Get a job, *Medium Term*: Reduced or eliminated public welfare dependency, *Long Term*: Continue doing it till you retire.

Step 3: Total Cost of Program?

The total costs of program HOPE shown in Table 4.9 were estimated by direct cost allocation, which identify the direct costs incurred plus relevant indirect costs. The total indirect cost was then divided by the number of programs. The total cost incurred to program HOPE during the evaluation period of 2008 and 2009 was $141,504.52.

Table 4.9-Program Cost calculation for program HOPE

Program 1- HOPE	
Program Costs	**Jan 2008 to Dec 2009**
Direct Costs	$59,602.26
Administrative	
Rent and Maintenance	$2,500.00
Equipment purchase and maintenance	$850.00
Technology Upgrade	$500.00
Audit expenses	$300.00
Insurance	$300.00
Postage and Delivery	$100.00
Printing and Reproduction	$300.00
PR & Communication	$250.00
Publications/memberships	$400.00
Other	$300.00
Supplies	$3,350.00
Training and travel	$2,000.00
Total Administrative costs	$11,150.00
Total Program Costs	**$141,504.52**

Step 4: Total Measurable Outcomes

Program outcomes are actual impacts/benefits/changes for participants during or after being enrolled in the program. These can be analyzed in comparison to what the program proposed to achieve and what it actually achieved at the end (New York State Department of Social Services, 1990). Participants reported the following qualitative and quantitative program outcomes achieved during the year 2009:

Participant Outcome

The following outcomes were disclosed by the participants involved in the CAD programs, and are classified according to short term, medium term and long term outcomes (Community Action Duluth, 2010). Although it may be very difficult to put a dollar value to these outcomes, any kinds of improvement in skills, or quality of life can be termed as a positive social return.

- *Short term Outcomes*: Gained improved knowledge of how to apply for jobs
- *Medium term Outcomes*: Optimistic approach to life and motivated to gain employment or better jobs and work more number of hours and make efforts to change their own and family members' lives.
- *Long Term Outcomes*: Gain experience by working at a job, Gain full time employment, enrollment in a university program, safer living environment and improved quality of life.

Program Outcome

Apart from the participant's personal outcomes and achievements, the program outcomes must include an overall table indicating the level of outcome developed and as measured in terms of full time or part time jobs. Table 4.10 shows the outcomes developed by the Project HOPE program in 2008 and 2009. A total benefit of $215,885 was provided by the program, which is profound considering the time and efforts invested by the professionals and participants involved in the program.

Table 4.10-Overall Program Outcome which shows the number of participants gaining employment, incomes generated and the level of self sufficiency achieved.

Year		2008-2009	Total Number of Participants			31
Type of Program		Employment	Total Number Employed			8
Self Sufficiency	***Outcome Value Created***	***Wage and Benefits***	***Total Employed***	***Average Annual Income/Person***	***% Success***	***Total Benefits***
Secure: Good	Full time	Above Minimum	1	$36,480	13%	$72,960
	Income	$72,960				
Exposed: Weak	Part Time	Above Minimum	5	$11,787	63%	$117,869
	Income	$117,869				
Emergency: Very Weak	Part Time	Minimum	2	$6,264	25%	$25,056
	Income	$25,056				
TOTAL			8		100%	**$215,885**

Table 4.10 shows the outcomes created by eight of the 31 participants who gained employment. The self-sufficiency level was determined by using the Federal Poverty Guidelines measured according to the Department of Health and Human Services. As seen above , five (63%) of the 31 persons gained part time employment but were still

very close to the FPG and hence face the danger of sliding below the poverty line of they don't retain their jobs. Similarly, one (13%) participant who gained full time employment is said to be in a secure position.

The incomes and tax revenues generated by number of participants gaining employment is not only social return caused by the program, there are other intangible returns like skills gained by the other 23 participants who are still unemployed. The skills they gained because of the HOPE program would have made them more employable in the future hence increasing the chance of them getting employment. It is very difficult to measure such returns, but it could be said that any positive outcome, even if not measurable is always acceptable.

Step 5) Total Measurable Cost Reductions

Total cost reduction is the reductions or elimination of welfare support received by participants. As shown in Table 4.11 four participants out of the eight who were employed, stopped receiving cash assistance ranging from $272 to $533 per month, reducing social costs of $33,336 in two years 2008, 2009. Another participant stopped receiving child care support of $220 per month hence reducing $5,280 in two years. Table 4.11 shows all reduced social costs of the eight employed participants over the period of two years which saved a total of $74,688.

Table 4.11-Total Costs Reductions due to elimination or reduction of number or level of Participants receiving Welfare assistance in 2008 and 2009

(Community Action Duluth, 2010)

	Total amount per month	**Annual costs avoided**	**Number of participants**	**Total for two years**
Public Assistance Program				
Child care Assistance	$220.00	$2,640.00	1	$5,280.00
Cash Assistance	$273-$532	$16,668.00	4	$33,336.00
SSI	$0.00	$0.00	0	$0.00
Food Stamps	$473.00	$5,676.00	2	$22,704.00
Social Service Programs				
Case Management	$0.00	$0.00	0	$0.00
Housing (Shelter, Transitional, GRH)	$230-$327	$6,684.00	2	$13,368.00
Emergency Care Rooms	$0.00	$0.00	0	$0.00
Total				**$74,688.00**

Total Social Cost reductions = Reductions in Public Assistance Program + Social Service Programs

= $61,320.00+ $13,368.00

= $74,688.00

Step 6) Measuring Social Impact Cost Savings to Community

Reduced Criminal Conviction Costs*: Expected Cost Savings = (The total cost per person to go through the justice system) X (Number of people convicted) X (State Recidivism rate) – (Number of repeat convictions)*

Out of the 31 participants in the program during 2008 and 2009, there were four participants with prior convictions and during the two year employment period, one participant went back to prison. Hence using the formula we get

Expected Cost Savings = $22,600 [1]X [(4 X 25%[2]) – 1] = 0

Although the expected cost savings is zero in this case, it might be a substantial amount when we consider a larger population.

For example: If only 2 out of 21 previously incarcerated persons returned to prison as the result of some intervention program,

The expected Cost Savings would be = $22,600 X [(21X 25%) – 2] = $73,450

Step 7) Total Economic Gain

Total Economic Gain = Total Income from all employed – Total Costs of program

= $215,884.80-$141,504.52

=$74,380.28

Step 8) Total Social Cost Reductions

$74,688.00 (From Step5)

[1] Total cost per person to go through the Justice System in USA = $22,600 (Department of Justice, 2008)
[2] Recidivism rate in Minnesota = 25% (www.accountability.state.mn.us, 2009)

Step 9) Total Economic Return on Investment

$$EROI\ (in\ percent) = \frac{Total\ \ Economic\ Gain + Total\ Social\ Cost\ Reductions}{Total\ Costs\ of\ Program}\ X\ 100$$

$$\frac{\$74{,}380.28 + \$74{,}688.00}{\$141{,}504.52}\ X\ 100$$

$$= 105.35\%$$

The EROI considers the Total Economic Gain, and not the total benefit generated. As seen in Step 7, Total Economic Gains is the difference in Total benefits received and Total Costs incurred.

Step 10) Social Impact Created (Positive, negative)

$$\text{SROI} = \frac{(\text{Total Economic gain} + \text{Total Social Cost Reductions} + \text{Social Impact Cost Savings})}{\text{Total Investments in the program}}\text{X } 100$$

$$\frac{\$74{,}380.28 + \$74{,}688.00 + \mathbf{0}}{\$141{,}504.52}\ X\ 100$$

$$= 105.35\%$$

Any Positive impact created is acceptable. So for every dollar spent on this program a benefit of $1.05, was received.

4.3 Summary

It could be concluded that, one can assume the modified SROI method is a good indicator of measuring the returns on investments as seen when it was used to calculate returns for the three programs. Program 1(HOPE) had an EROI of 105.35% and SROI of 105.35% because the social impact created by reduced social costs were not significant in our data set. This number could be very significant when a larger data sample is being studied. The data for program 2 and 3 (BTE, JS) were combined for calculations since they are similar programs. For these two programs the EROI was 190.95% and SROI was 195.43% with a total social impact of reduced social costs was $11,300 (See Table 4.12). Table 18 summarizes all the costs and benefits and returns for the three programs.

A total of $298,440.00 was saved as social reduced costs by removing 32 employed participants from receiving welfare assistance. Although the other 95 participants enrolled in these three programs were not employed and continued to receive welfare assistance, those costs were not included in the calculations as that is not included in the program costs as they were receiving those benefits even before enrolling in the program. Only the costs reduced by employed participants were used as measure of outcome created by the programs.

Table 4.12-Summary of different costs and benefits and SROI for all three programs

	Program 1 (HOPE)	**Program 2 (BTE)**	**Program 3 (JS)**
Total Costs	$141,504.52	$252,262.64	
Total Economic Gains	$215,884.80	$510,204.32	
Total Cost Reductions	$74,688.00	$223,752.00	
Total Social Savings	$0.00	**$11,300** (See Table 4.13)	
Total Benefit	$290,572.80	$733,956.32	
EROI	105.35%	190.95%	
SROI	105.35%	195.43%	

Note: Program 2 and 3 are combined for analysis as they are exact same programs just run by different advocates.

Table 4.13-Total Social Cost Savings for program 2 and 3

Criminal convictions costs Per person per year in USA (National Average)	$22,600
Recidivism Rate in MN	25%
Number of prior convictions	6
Number of Repeat convictions	1
No of convictions X State Recidivism	1.5
Minus Repeat Convictions	0.5
Multiplied by Cost/year	**$11,300**

Table 4.14 shows an overall snapshot of returns for Program 1(HOPE). In the case of a stakeholder making an investment decision, Table 4.12 helps provide a clearer picture of the returns generated by the program and hence it could be a useful tool to analyze future investment options.

The next chapter will discuss ROI results of the three programs using the Carter Richmond Methodology, which is the most commonly used tool for measuring Returns on Investments for Social Community programs. Recommendations and Future work would be discussed.

Table 4.14-Overall Snapshot for Program HOPE outcomes

Participant	Type of Job		Wage per hour $		Salary and Employment benefits					Incomes Earned	Taxes Paid	Welfare- Subsidized Benefits Avoided			Avoidance of benefits					Total Cost savings by avoiding benefits in 2 years	TOTAL BENEFIT= Incomes earned+	Overall Self Sufficiency Outome		
	FT	PT	Above Min	Min	Annual Salary	Health	Life	Disability	Sick Leaves	2008 and 2009	2008 and 2009	None	Partial	Complete	MFIP	Food Stamps	Child Care	Cash Assistance	Housing			Secure: Good	Exposed:Fair	Emergency: Very Week
1	√		√		$36,480.00	√	√	√	√	$72,960.00	$16,087.68			√	√	$473.00	$0.00	$532.00	$0.00	$24,120.00	$97,080.00	√		
2		√	√		$14,918.40	√			√	$29,836.80	$4,579.95		√			$0.00	$220.00	$273.00	$327.00	$19,680.00	$49,516.80		√	
3		√	√		$13,320.00	√				$26,640.00	$4,089.24		√			$473.00	$0.00	$311.00	$0.00	$18,816.00	$45,456.00		√	
4		√	√		$12,288.00	√				$24,576.00	$3,772.42		√			$473.00	$0.00	$0.00	$0.00	$11,352.00	$35,928.00		√	
5		√	√		$9,408.00					$18,816.00	$2,888.26		√			$0.00	$0.00	$0.00	$230.00	$5,520.00	$24,336.00			√
6		√	√		$9,000.00					$18,000.00	$2,763.00		√			$0.00	$0.00	$273.00	$0.00	$6,552.00	$24,552.00			√
7		√		√	$6,960.00					$13,920.00	$2,136.72	√				$0.00	$0.00	$0.00	$0.00	$0.00	$13,920.00			√
8		√		√	$5,568.00					$11,136.00	$1,709.38	√				$0.00	$0.00	$0.00	$0.00	$0.00	$11,136.00			√

Chapter 5: Discussion and Conclusion

5.1 Introduction

The purpose of the study was to develop a model to measure the social returns on investments by NPO programs. The generic trend and emphasis laid on calculating and using just the Economic Return on Investment (EROI) was challenged in this study and the importance of measuring Social Return on Investment (SROI) was identified. As mentioned in the previous chapters, EROI calculates the economic benefits created by a program whereas SROI tries to calculate the economic benefits plus social benefits created by a program.

The current research followed a new approach. The author proposed a modified SROI model to calculate a more reasonable result, compared to the current widely used methods. The modified model was used to calculate the SROI for three social service community programs conducted by Community Action Duluth (CAD), a nonprofit organization in Duluth, Minnesota.

Managers and engineers should pay close attention to the returns on investment methodology and the nature of returns being economic or social, when analyzing and estimating different investment options and stakeholder returns. The proposed modified SROI method was found to be a good methodology and better indicator for the social returns.

5.2 Results from Carter-Richmond Methodology™ and Modified SROI model

Table 5.1 shows the difference in results using the current model (Carter-Richmond Method) and the Modified SROI model. The Carter-Richmond Method, which is currently the most commonly used model among NPO's estimated an EROI of 205.35% for Program 1 compared to the SROI of 105.25% as per the proposed SROI model. The returns calculated using the proposed model is lower since it subtracts the costs incurred and invested by the program in the first place, from the benefits returned as outcomes due to the program, and hence expressing the '*True Gain'* on investment. Even though the EROI numbers are higher using the Carter-Richmond Methodology, it could be said that the modified SROI model is a more reasonable measure since, the costs incurred by the program are subtracted from the returns generated, hence giving a true return scenario for calculating the SROI percentage. Table 5.1 shows the results for all three programs calculated individually using both the models for comparisons.

The important factors affecting the analysis of SROI value were analyzed using two different methods of ROI. Although the data from Program 1 and 3 did not show any positive 'social' returns meaning, EROI and SROI were identical. The results from Program 2 showed the SROI of 267% compared to the EROI of 258% using the proposed method. The SROI value is higher and should be considered a better indicator of the program success. Thus, it can be stated that EROI values may not always be a true indicator of all the NPO program outcomes and returns. It is thus important to consider and acknowledge the SROI methodology, in order to support the returns on investments for NPO programs.

Table 5.1- A comparison of results from Carter-Richmond Method and the Modified SROI Method

	Carter-Richmond Methodology™			**Modified SROI Method**		
	Program 1	***Program 2***	***Program 3***	***Program 1***	***Program 2***	***Program 3***
Total Costs	$141,504.5	$131,307.5	$120,955.2	$141,504.5	$131,307.5	$120,955.2
Total Economic Returns	$290,572.8	$469,844.0	$264,112.3	$149,068.3	$338,536.5	$143,157.2
Total Social Returns	$0.0	$0.0	$0.0	$0.0	$11,500	$0.0
Economic ROI	205.35%	357.82%	218.36%	105.35%	**257.82%**[3]	118.36%
Social ROI	**205.35%**	357.82%	218.36%	**105.35%**	**266.58%**	118.36%

As reported earlier, literature has suggested that the common practice ignores measuring or considering the social impacts associated with the returns. The current research findings support and claim that, SROI methodology is an equally and especially in case of NPOs, a better indicator of the returns on investments.

5.3 Results from the Study

This study shows that SROI is a more holistic measure of ROI and the social nature of returns encompassed in the method makes it more significant to human lives and functioning. The economic returns are quantitative results to investments, while the social returns are quantifiable through the proposed modified SROI methodology as well

[3] Note: Program 2 and 3 are calculated individually and not clubbed together like the previous chapter.

as rationalize for the qualitative changes and improvements to individuals and the environment.

The results imply that, care should be taken while assigning a dollar value to the outcomes created and in making conclusions about returns on investment, to prevent any false and artificial claims of outcomes which may not be caused because of the program.

5.4 Summary and Recommendations

This study tried to apply the rationale of Engineering Management approach by, trying to measure and fine tune the accuracy of different outcome indicators while measuring the SROI. Although the proposed SROI method cannot be a sole measure of social performance, it serves as a beginning in a new direction towards measuring the true tangible social impacts created by different programs.

The results show that the EROI value and SROI values calculated was different using current available and proposed modified model of analysis. Thus, social aspects of returns on investments have to be taken into consideration when analyzing and estimating the success of any program.

Again, EROI method was found to indicate results that may not be a true reflection and indicator of the social return of a NGO program. Managers and others involved in NPOs should focus on clarity of the methodological tool to be used for estimating the true returns on investments. The authenticity part should also be taken care of, as different programs bring about different nature of returns. The methodology should be as clear as possible and the stakeholders, especially the participants have to be given

credit for their efforts and investments in order to generate positive effects and returns more efficiently to such programs.

5.5 Future Work

Data from other NPO's other than CAD could not be included in the research. The data from similar organizations would have been valuable to test the differences in values generated by two different methodologies. Since the concept of SROI is still naïve or in its infancy, many organizations do not maintain a lot of data which could be used to calculate and compare SROI values over the years.

The proposed modified methodology should be followed to get a more reasonable result of the potential social benefits and returns. This methodology can also be used to predict reduced crime rates in a state or a country.

Since this study was confined to publicly available data (from Government Sources) and data from CAD, the number of participants was limited. The sample size, in future, could be selected from a number of NPOs and larger secondary and government data sets in order to analyze the larger picture of SROI to the stakeholders, the organization and the nation in general.

It was difficult to collect a lot of critical data from many governmental agencies due to various reasons. This suggests that in future, prior efforts, notification and approval from university may be used to approach and thus gather more data for the study.

'For-profit' organizational data was not employed in the research. Combination of SROI and EROI models in estimating and returns on investments could be a valuable

resource in estimating the real nature of returns. The nature of returns in such cases may be different due to many possible reasons, such as the individual gets employment thus an economic gain as well as serves in community centers as a tutor or resource person which in turn brings about larger social gains. Also, customary acceptance of benefits in the ROI calculations is troublesome, but it is a standard practice. Ideally the taxable income is true income, however the benefits from social impact should be added to the tax code, and the tax system should recognize the positive impact created rather than penalizing the organization. In future, the study may test the proposed modified SROI model on for profit organizations where the SROI is typically very difficult to measure. Having additional 'measurable' indicators and standardized methods to document and calculate the social impacts created by For-profit organizations is the only way to have the complete understanding of the true social impact. The data generated through SROI would be more meaningful while compared to comparative data from other organizations. Lastly, the SROI methodology can be combined with Systems Dynamic Model applications and tools such as Stella, to form a framework for analysis.

In sum, the purpose of current thesis was fulfilled that is, to propose and test a modified SROI model and prove that economic returns on investment (EROI) estimation is not always a true indicator of program success and that the social returns gained should be encompassed in the returns on investment analysis, which is reasonable estimation of social returns, and thus is important.

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APPENDIX 1-Program 1 (HOPE) Costs

The table below represents all Direct and Indirect costs incurred to run the HOPE program for the years 2008 and 2009. A direct Cost allocation method was used to identify program costs.

Program 1- HOPE

Program Costs	**Jan 2008 to Dec 2009**
Direct Costs	$59,602.26
Administrative	
Rent and Maintenance	$2,500.00
Equipment purchase and maintenance	$850.00
Technology Upgrade	$500.00
Audit expenses	$300.00
Insurance	$300.00
Postage and Delivery	$100.00
Printing and Reproduction	$300.00
PR & Communication	$250.00
Publications/memberships	$400.00
other	$300.00
supplies	$3,350.00
training and travel	$2,000.00
Total Administrative costs	$11,150.00
Total Program Costs	**$141,504.52**

APPENDIX 2-Program 2 (Bridges to Employment) Costs

The table below represents all Direct and Indirect costs incurred to run the Bridges to Employment Program for the years 2008 and 2009. A direct Cost allocation method was used to identify program costs.

Program 2 - Bridges to Employment

Program Costs	**Jan 2008 to Dec 2009**
Direct Costs	$54,503.74
Administrative	
Rent and Maintenance	$2,500.00
Equipment purchase and maintenance	$850.00
Technology Upgrade	$500.00
Audit expenses	$300.00
Insurance	$300.00
Postage and Delivery	$100.00
Printing and Reproduction	$300.00
PR & Communication	$250.00
Publications/memberships	$400.00
other	$300.00
supplies	$3,350.00
training and travel	$2,000.00
Total Administrative costs	$11,150.00
Total Program Costs	**$131,307.48**

APPENDIX 3-Program 3 (Jump Start) Costs

The table below represents all Direct and Indirect costs incurred to run the Jump Start program for the years 2008 and 2009. A direct Cost allocation method was used to identify program costs.

Program 3 - Jump Start Duluth

Program Costs	**Jan 2008 to Dec 2009**
Direct Costs	$49,327.58
Administrative	
Rent and Maintenance	$2,500.00
Equipment purchase and maintenance	$850.00
Technology Upgrade	$500.00
Audit expenses	$300.00
Insurance	$300.00
Postage and Delivery	$100.00
Printing and Reproduction	$300.00
PR & Communication	$250.00
Publications/memberships	$400.00
other	$300.00
supplies	$3,350.00
training and travel	$2,000.00
Total Administrative costs	$11,150.00
Total Program Costs	**$120,955.16**

APPENDIX 4- Income Outcome from the Program 2&3 (BTE, JS)

The table below shows the total incomes earned by employed participants. The self-sufficiency level was assigned using the federal poverty guidelines, 2009. Any participant having a full time job and earning more than $12,000 a year would be above the poverty threshold.

YEAR		2008-2009	Total Number of Participants			96
Type of Program		Employment	Total Number of Employed			24
Self Sufficiency	***Outcome Value Created***	***Wage and Benefits***	***Total Employed***	***Average Annual Income/Person***	***% Success***	***Total Benefits***
Secure: Good	Full time	Above Minimum	8	$17,032	33%	$272,516
	Income	$272,516				
Exposed: Weak	Part Time	Above Minimum	10	$10,059	42%	$201,190
	Income	$201,190				
Emergency: Very Weak	Part Time	Minimum	6	$3,042	25%	$36,499
	Income	$36,499				
TOTAL			24		100%	$510,204

APPENDIX 5-Calculations for Social Cost Reductions for Program 2&3 (BTE, JS)

The table below represents all the costs avoided/reduced or eliminated for the employed participants who were taken off welfare assistance after getting employed. The table below shows the total cost reductions for 2008 and 2009.

	Total amount per month	Annual costs avoided	Number of participants	Total for two years
Public Assistance Program				
Child care Assistance	$210.00	$2,520.00	6	$30,240.00
Cash Assistance	$273.00	$3,960.00	16	$63,360.00
SSI	$0.00	$0.00	0	$0.00
Food Stamps	$473.00	$5,676.00	11	$124,872.00
Social Service Programs				
Case Management	$0.00	$0.00	0	$0.00
Housing (Shelter, Transitional, GRH)	$440.00	$5,280.00	1	$5,280.00
Emergency Care Rooms	$0.00	$0.00	0	$0.00
Total				**$223,752.00**

APPENDIX 6-Carter-Richmond Methodology™ - for Program 1

Program Name: Help and Opportunity in the Pursuit of Employment (HOPE)

1. **How many families are you serving?**
   31 families were served between January 2008 and December 2008

2. **How many people were employed?**
   8

3. **Who are they?**
   Unemployed participants who were receiving cash and food benefits from the government

4. **What services do you give them?**
   Housing advocacy, teaching soft skills for employment, resume help, referrals, mentoring, support, help locating child care

5. **What does it cost?**
   $141,504.52

6. **What does it cost per service delivered?**
   $141,504.52/31 = $4,564.66

7. **What happens to the participants as a result of your service?**
   Possible Employment, Participants gain confidence in their ability to provide a better life for their family. They gain skills in area's they may not have realized they were lacking skills in that were dramatically impacting their ability to move their families forward. Participants are able to secure and supportive network of people around their families and they access more programs that are beneficial to their family.

8. **What does it cost per outcome?**
   $141,504.52/8 = $17,688.07

9. **What is the value of an outcome?**
   Economic Outcome- $215,885in Incomes + $74,688.00in costs reduced=$290,572.80
   Social Value for all participants- Through confidence and experience participants begin to see that it is possible for them to be self sufficient and they enjoy the independence of not depending on the government. So not only is there financial value to the HOPE Program, there is a significant emotional value for each individual participant that is impossible to measure through numbers alone.

10. **What is the return on the investment?**
    ROI = Total Benefits/Total expenses
    =$290,572.80/$141,504.52
    =205.35%

APPENDIX 7-Carter-Richmond Methodology™ for Program 2

Program Name: Bridges to Employment

1. How many families are you serving?

60 participants during 2008 and 2009

2. How many people were employed?

16

3. Who are they?

Unemployed participants of African American ethnicity receiving welfare from the government

4. What services do you give them?

Constant counseling, exploring and analyzing the current situation of participant's problems, aspects such as preparedness for job, responsibilities with regards to childcare, transportation, on-going support for job development and retention, consistent encouragement to deal with challenges at home as well as work front. Culture specific mentoring is the most important service aspect of this program.

5. What does it cost?

$131,307.48

6. What does it cost per service delivered?

$2,188.46

7. What happens to the participants as a result of your service?

Participants have refined strategies looking for job, prepare resume to apply for jobs, job readiness, job placement and improved skills for a particular job. Participants gain confidence to apply for jobs and many receive immediate employment.

The program has also placed 4 participants in volunteer positions during the interval which allowed them to meet the MFIP work participation requirement.

8. What does it cost per outcome?

$8206.7175

9. What is the value of an outcome?

Economic Value- *$357,968.00(Incomes) + $111,876.00= $469,844.00*

Social Impact- *Bridging the gap from unemployment to employment is a major financial value gained for an individual as well as the stakeholders. Full time employment, stability in job and career goals planning are the valuable benefits acquired. In addition, emotional value is attained through stable life style, improved relationships, improved quality of living and better outlook towards self and work. Most importantly, along with efforts to bridge the gap between unemployment to employment, this program also achieves the value of helping participants from African American minority to not be subjects to racial discrimination and stand chances to equal opportunities as others.*

10. What is the return on the investment?

ROI= Total Benefits/ Total Expenses

=$469,844.00/$131,307.48

=357.82%

APPENDIX 8-Carter-Richmond Methodology™ for Program 3

Program Name: Jump Start Duluth

1. How many families are you serving?

36

2. How many people were employed?

8

3. Who are they?

Overall participant self identified race statistics: n=36
16 Caucasians (44%)
11 African Americans (30.5%)
6 Native Americans (16.6%)
2 Multi-racial (5.5%)

Household Information: n=36
22 single mothers (61.1%)
7 single persons (19.4%)
7 single fathers (19.4%)

Average Federal Poverty Guideline (FPG): n=36
136% with a range of 56% FPG to 221% FPG

4. What services do you give them?

Jump Start Duluth delivers assets of independence to low-income families and individuals in a variety of ways: including a down-payment assistance, financial and credit repair education, case management support, and personalized car maintenance education.

Financial and Credit Repair Education: As a way to better integrate Jump Start Duluth participants into the mainstream financial world and to expand the impact of CAD's financial education classes, all Jump Start Duluth participants are required to take the Common Cents financial education class. All participants also have the opportunity to work 1:1 with a financial educator/coach to further improve their credit and ability to gain assets into the future.

5. What does it cost?

$120,955.16

6. What does it cost per service delivered?

$3,359.87

7. What happens to the participants as a result of your service?

"This Program has truly changed my life. I say a prayer of thanks each day for this program"

- Susan Christenson- Mother & Jump Start Participant

For many of the families we work with, a Jump Start vehicle is a means to acceptance, participation and greater inclusion in the mainstream social and economic fabric of the Duluth community.

The Jump Start program has had a large impact on the participants we've worked with. The following are a few examples:

- *Denise is a single mother who was in jeopardy of losing her job because her car was constantly breaking down causing Denise to be late to work. As her job required her to meet with clients at various locations throughout Duluth, taking the bus was not always an option. Having purchased 2007 Ford Focus through the Jump Start program, Denise is not only secure in her employment, but working more hours with the ability to take on more clients. Denise also has more free time now which she devotes to volunteering in the Duluth community.*

  "The impact of having the car that the Jump Start program helped me to finance has done wonders in my life. I am now able to get to work, doctor's appt, grocery store, etc. on time without worries. It feels so good to go outside and my car starts every time. I truly appreciate having a reliable vehicle to depend on. I will live up to my obligations to the program. Having a good running vehicle takes away the worry and I am able to prepare and perform my job better and to always progress. I am forever grateful. Thank you" - Denise

- *Joyce, a single mother, first applied for the program on March 12, 2009. At that time her credit score was 520, she had $3936 in collections, two outstanding judgments and a history of bad checks. Because of her current credit situation we were unable to approve her for a purchase of a Jump Start vehicle. The Jump Start Duluth transportation advocate helped Joyce create and stick to a credit repair plan. On September 8, 2009, having satisfied all of her judgments and paying off over 60% of her collections, Joyce was able to re-apply for the program with a credit score of 567 (47 points higher than when she first applied). As a result of her hard work and dedication to repairing her credit and the guidance of Jump Start Duluth's transportation advocate, Joyce was approved for the program and purchased a 2008 Hyundai Sonata on September 29, 2009.*

Since purchasing her car, this single mother has not only been able to work more hours at her job at a local hotel, but has also gone back to school. Joyce is also able to take her son to and from confirmation classes now - something that was very important to both her and her son. To date, Joyce has made all of her Jump Start Duluth payment's on time and is utilizing the maintenance and repair savings fund for regular maintenance of her vehicle.

"The Jump Start Program was life changing for me and my son. A great feeling of security and safety. Also, the program helped me get my credit to a better score and also the common cents class helped me to budget better and taught me how to save for the future once I get working I want to enroll in the FAIM program so I can buy a house. Like I said above, the programs at Community Action are a blessing." - Joyce

- *Jill, a Jump Start Duluth participant, is a single mother who was working a low-wage job and going to school. She was barely able to make ends meet and rarely able to see her son. Upon graduation, she was offered a full-time position in her chosen field, with benefits. Jill was ecstatic about the offer, until she learned the position required a vehicle. Jill's car had broken down and she did not have the ability to purchase a new one. Through work with the Jumpstart program, Jill was able to purchase a 2007 Ford Fusion in March of 2009. Jill is now working as a full time RN for the State of Minnesota. Jill is making more money has full benefits and is able to spend more quality time with her son.*

  "The Jump Start Program has helped me tremendously. I would not have gotten the job I have now without it." - Jill

8. What does it cost per outcome?

$15,119.395

9. What is the value of an outcome?

Economic Value- *$152,236.32(Incomes) + $111,876.00(Cost reductions) = $264,112.32*
Social Impact- *A dependable vehicle is not only a practical necessity and a key to gaining remunerative work; it is also a means to acceptance, participation and greater inclusion in the mainstream social and economic fabric of the Duluth community. Access to stable and reliable transportation can remove barriers and enable families to participate more fully in work, school and the larger Duluth community. Jump Start Duluth enriches the economic and social lives of our participants.*

Jump Start Duluth not only enriches the economic and social lives of our participants, but that of the entire Duluth community as well. The ultimate benefit

to the community is a reduction of the number of people living in poverty and the conditions that often accompany it in Duluth.

10. What is the return on the investment?

ROI= Total Benefits/ Total Expenses

=$264,112.32/$120,955.16

=218.36%