



The Value of the Nonprofit Youth Development Field in Illinois

A Social Return on
Investment Analysis

with Donors Forum

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This report is available online at: www.socialimpactresearchcenter.issuelab.org

INTRODUCTION AND KEY FINDINGS

This Social Return on Investment (SROI) analysis compares the public and private investment into the Illinois nonprofit youth development field to the social and economic value it creates for the youth and families who experience the programs and for society as a whole.

Youth development is an approach to helping youth acquire the knowledge and skills they need to become healthy and productive adults. Youth development programs target youth of all ages, some even up through the mid-twenties. While youth development programs are quite diverse and some focus on addressing problems as or after they have occurred, the majority of youth development programs are preventative in nature.

HOW TO READ THIS REPORT

This report is a narrative explanation of the work of the youth development field and the changes it brings about in the world for youth and their families and for society. The main chapter, Determining Value, walks through the youth development SROI process step by step. The sidebar contains helpful methodological explanations that outline how and why decisions were made. Readers who want the full set of data sources, figures, and methods should refer to Appendices B, C, and D.

The following activities and characteristics are illustrative of many youth development programs:

- Create a safe space for youth to spend time
- Run hands-on activities focused on interesting topics like multi-media creation, performance arts, or sports
- Help with homework
- Go on field trips or outings
- Coordinate community service activities
- Staffed with caring adults and mentors
- Provide youth leadership opportunities and foster team building
- Provide prevention-related messages around issues like safe sex and drug use

Key Findings

Almost \$302 million is invested in over 275 Illinois nonprofits that do direct service youth development work, and those groups serve 1.2 million youth each year. One third of that investment is from public sources, and the remainder is from private sources like foundations. What does this investment in Illinois's youth yield?

- Every dollar invested into the Illinois nonprofit youth development field generates an estimated \$45 in socio-economic value.
- \$9 of this socio-economic value accrues to the youth in the programs and their families.
- \$35 of this socio-economic value accrues to society through increased tax revenue, increased spending in the state due to youth development jobs, and avoided spending to treat costly social problems.

The real utility of an SROI lies in its ability to reveal if and how our investments into programs pay off. And on that, this SROI of the nonprofit youth development field in Illinois is clear: investing in youth yields dividends.

Social Return on Investment Background

HOW IS SROI DIFFERENT THAN ROI?

The SROI methodology uses the same core concepts and calculations as a traditional ROI or cost benefit. Where it differs is in the inclusion of outcomes that are not strictly economic. With an SROI, we explore all the outcomes a field affects, research each one, and include even the social and environmental outcomes that have enough evidence to justify their inclusion. When it comes time to put a value on the outcomes, we gather feedback from experts and use reasonable judgment to ascribe proxy values to the outcomes that don't have an inherent market value.

Put another way, a standard ROI and cost benefit reflect the money a program or policy or decision generates and the money it saves (the money that won't have to be spent). Our SROI studies include both money generated and money saved due to the work of the sector but adds in the value we've calculated for the social and environmental outcomes. Most ROIs usually only include value that accrues to one beneficiary, usually society or taxpayers. We add in the value that accrues to program participants, too.

This is why our findings reflect a higher ratio than you're used to seeing; we are being far more inclusive.

How do we understand and communicate the value of nonprofits? As a field, the tools we've had at our disposal to answer this question have yielded unsatisfyingly incomplete answers. Cost-benefit analyses and return on investment analyses, the most common and well-known tools for this sort of purpose, were developed by investors and businesses to assess profits. This is appropriate for investors and businesses as their main objective is making money and turning a profit. However, these tools are insufficient when it comes to capturing the value nonprofits create since for nonprofits value does not equate turning money into dividends.

Value for nonprofits is a much broader concept. It's about money generated or costs avoided, sure, but it's also about creating more abstract things like social cohesion, civic engagement, or reduced human suffering.

Because the existing tools that measure value were designed for for-profit enterprises, using them to assess the value of nonprofits by definition yields an incomplete picture of nonprofit value. Because of this, nonprofits continue to be thought of as charities, the work they do as kind and compassionate, but ultimately dispensable when budgets get tight.

This has led Donors Forum to engage a research partner, the Social IMPACT Research Center, and to explore other techniques that give equal weight to—or at least space for—social and environmental value in addition to pure economic value. Social Return on Investment (SROI) emerged as fitting this bill.

SROI has roots in a California-based group called REDF that began experimenting in the late 1990s with how to understand investments into social enterprises against the impact of those social enterprises. SROI is not an entirely new method—it's a traditional return on investment model expanded to suit organizations whose primary aims are to create positive change in the world. It's a framework that starts with the economic role nonprofits play—as job creators, as avoiders of costly social problems—but that also includes the social and the environmental role nonprofits play—as builders of human capital, as pillars in communities, as protectors of air, land, and water.

The SROI concept garnered attention and considerable traction in Europe. REDF's original concept and methods have been refined there with the emergence of the European SROI Network in 2004, nef's primer on the subject released later that same year, followed by several other guides in 2005 through 2007. This eventually led to the founding of the SROI Network in 2008, which, with the support of the UK Cabinet Office, released a guide to conducting SROI and has been providing thought leadership, tools, and methodological guidance for the analytical framework ever since. SROI Network affiliates have opened in countries around the world, including the United Kingdom, Australia, France, The Netherlands, Sweden, and Japan.

Using a Social Return on Investment analysis for three nonprofit fields in Illinois, youth development, arts and culture, and environment, Donors Forum is in essence proposing a paradigm shift in how we define and measure value and how to think about the important role Illinois nonprofits play in making the state a better place to live, work, and play.

DETERMINING VALUE

METHODOLOGICAL INSIGHTS

We begin the SROI process by establishing a theory of change for the youth development field, which crystallizes what change the work of youth development programs bring about. In addition to research, a group of stakeholders—experts on youth development—helped do this.

Here is where we determined who benefits from youth development programs. The expert stakeholders once again helped us sort this out. Conceivably, all sorts of people and groups benefit from youth development...from the kids to their families to businesses to teachers. We opted to stay focused on the primary beneficiaries, youth and their families, and society since “society” encompasses the communities and systems all Illinoisans experience and rely on. The exact age range that

OUTCOMES...Change Created by the Youth Development Field

Youth development programs have an impact in many different areas. The programs:

- Increase economic security
- Create stronger communities
- Reduce corrections system involvement
- Reduce public benefits receipt
- Decrease victimization
- Improve health
- Increase workforce engagement
- Improve schools
- Increase social emotional health and life satisfaction/well-being
- Create community spaces

Some of these outcomes are more closely linked to the work of youth development nonprofits and more easily substantiated than others. For instance, youth development practitioners on a daily basis see how their programs equip kids with the hard and soft skills they need to be productive working members of society, which will lead to those kids being less likely to need public assistance in the future. But this sort of chain of events has not been sufficiently evidenced with research to warrant its inclusion in this analysis.

The outcomes that rose to the top as warranting inclusion after a research-based reality check are:

- Increase economic security
- Create stronger communities
- Reduce corrections system involvement
- Improve health
- Increase workforce engagement
- Improve schools

BENEFICIARIES...The People and Groups that Experience the Changes

The outcomes are experienced uniquely by youth and their families and by society.

As the people who experience the programs first-hand, the youth, and by extension their families, benefit directly and personally from youth development programs. Of the list of outcomes above, participating youth and families experience increased economic security, stronger communities, reduced corrections system involvement and improved health because of

programs in this field serve varies. While some programs serve youth younger than age 6 and others serve youth up through age 24, the majority work with youth in the range of 6 through 17, and that is the age range used for the purposes of this analysis.

This next step involves finding evidence to support the claim that youth development programs create these changes in Illinois. With this being a field-wide analysis, it's obviously not feasible to gather the necessary data from each youth development program in the state because a) no two programs are collecting the exact same outcome data in the exact same way, b) programs are likely not collecting all the different types of outcome data needed, and c) even if they are, they don't have to give it to anyone who asks.

So, we had to look elsewhere to evidence these outcomes. We used a combination of secondary data sources (like the U.S. Census Bureau's American Community Survey), a survey of youth development nonprofits in Illinois conducted for the purposes of this project, and studies/evaluations done on youth development programs. Many estimates reflect just a subset of youth for whom the outcome is most likely to apply to. For instance, the outcome about avoiding teen parenthood was limited to just youth ages 12 to 17, and the outcome about parents working more was limited only to working parents.

youth development programs. The exact age range that programs in this field serve varies considerably. While some serve youth younger than age 6 and others serve youth up to age 18, for the purposes of this analysis, we assume that youth served are between 6 and 17 years of age. Where specific outcomes relate more to an older or younger age bracket within this age range, we refine the analysis to just that subgroup.

Society—taxpayers, institutions, the shared economy—also benefits, though in a slightly different way, by the impact of youth development programs on fostering increased economic security, stronger communities, reduced corrections system involvement and improved health. Additionally, society benefits from increased workforce engagement and improved schools.

EVIDENCING AND DISCOUNTING...Substantiating Claims but Not Over Claiming

Each of these benefits or outcomes can be operationalized and quantified into something more concrete. The evidence that youth development programs create positive change that is important to youth and to their families can be seen in the following ways:

Youth development programs increase economic security for youth and their families:

- the number of youth graduating minus the number that would have graduated anyway without a program.
- the number of parents with increased work stability minus the number who would have experienced work stability without their kids in a program.
- the number of youth who have jobs through their youth development program minus youth who would have found a job without a program helping them.
- decreased family spending on food due to the number of snacks and meals provided in youth programs minus the number of snacks and meals that parents likely still provided for their kids anyways.

Youth development programs create stronger communities for youth and their families:

- the number of youth involved in civic, social, and community activities minus the number who would be engaged in these ways even without a youth development program.

Youth development programs reduce corrections systems involvement for youth:

- the number of youth who avoid interactions with law enforcement, courts, and corrections minus those who would never have been involved with the corrections system even without a youth development program.

The other important thing going on here is that we are being very careful to not over claim the impact of youth development programs. We are discounting impact by subtracting out what would likely have happened anyway, since, for example, most kids would graduate high school even if they weren't in a youth development program. We use studies on youth development programs that have control groups to isolate the effect of the youth development program on each outcome.

See Appendix D for details on all data sources and methods used.

How is SROI different than program evaluation or a research study? An evaluation seeks to determine how well a program is meeting its goals, essentially how effective the program is in changing the things it sets out to change. Evaluations generally yield results like, "79% of youth in the program did not use drugs, compared to 64% of the control group youth who did not participate in the program."

SROI studies are very different. Their primary purpose is to determine the value of the change programs or the field creates in the world. Evaluation findings are a critical input in SROI studies and are used as evidence that programs in the sectors really do create the changes they set out to make.

Youth development programs improve health for youth:

- the number of youth avoiding teen parenthood minus those who never would have become teen parents anyway.
- the number of youth receiving reproductive/sexual health care minus those who would have received care even if they weren't involved in a youth program.
- the number of youth avoiding tobacco, drugs, and alcohol minus those who wouldn't have used substances even without being in a youth program.

The evidence that youth development programs create positive change that is important to society can be seen in the following ways:

Youth development programs create stronger communities throughout Illinois:

- the number of youth development field full-time equivalents that spend their money in Illinois communities minus the number who would likely find employment in another field if the youth development field didn't exist.
- the number of youth employed through youth development programs that spend their money in Illinois communities minus youth who would have found a job without a program providing one.

Youth development programs reduce corrections systems involvement for the state:

- the number of youth who avoid interactions with law enforcement, courts, and corrections minus those who would never have been involved with the corrections system even without a youth development program.

Youth development programs improve health:

- the number of youth avoiding teen parenthood minus those who never would have become a teen parent anyway.
- the number of youth receiving reproductive/sexual health care minus those who would have received care even if they weren't involved in a youth program.
- the number of youth avoiding tobacco, drugs, and alcohol minus those who wouldn't have used substances even without being in a youth program.

Youth development programs increase workforce engagement for the state:

- the number of tax-paying, full-time equivalent jobs in the youth development field minus the number who would likely find employment in another field if the youth development field didn't exist.
- the number of tax-paying jobs held by youth through the programs minus youth who would have found a job without a program helping them.

- the number of youth who pay more taxes because they graduate high school minus the number that would have graduated anyway without a program.

Youth development programs improve Illinois school systems:

- the number of students whose grades improve minus the number who would improve their grades without being in a youth program.
- the number of students avoiding suspension minus the number who wouldn't have experienced suspensions even if they weren't in a youth program.
- the number of non-school youth development staff in schools minus how many of these positions might be filled by the schools if the youth development programs weren't there.

ASSIGNING VALUE...Expressing Value in Dollars Even When an Outcome Seems Social Not Economic

Here is where SROI really distinguishes itself. We do the same thing that an ROI or cost benefit analysis would do by calculating the monetary value of each clearly monetizable result of the field's work—money that's generated and money saved through avoided costs. But we also do the same thing for the results that are more social in nature and do not have a clear market value, like wages earned or spending avoided do. In essence, we use a monetary stand-in or a proxy value for the social outcomes in order to give them more equitable and concrete standing and to present a more holistic picture of the value created by nonprofits.

All these monetary values have been thoroughly researched and informed by stakeholders who know and understand youth development. Where several approaches for valuing outcomes emerged, we used averaging or the most conservative one.

All values are represented in 2013 dollars. Read all about the sources and methods used for assigning value in Appendix D.

For each positive change that youth development programs create for youth and their families and for society, value is created. Some of the value that is created is quite easily put into monetary terms, such as how much more money a person will earn annually with a high school diploma than without one. For other outcomes, such as youth being more civically engaged, the value is less tangible because it does not have an inherent market value.

Nonetheless, it is critically important to determine the value of all the positive change youth development programs create, not just the values that are easy to look up with a quick Internet search. Otherwise, the true value of youth development programs will be greatly understated.

The value of youth development programs in Illinois accrues distinctly to youth and their families and to society. Impacted youth and their families reap the following value as a result of youth development programs:

Youth development programs increase economic security for youth and their families:

- For the youth who will graduate high school thanks to youth development programs, each will earn \$7,732 more annually on average than if they dropped out.
- For the parents with increased work stability thanks to youth development programs, each earns \$330 more annually because they have less stress knowing their kids are safe after school, leading to fewer missed work days.
- For the youth who have jobs through their youth development program, they earn an average of \$1,325 a year.
- Each snack and meal provided in youth programs means \$0.40 and \$2.54 less, respectively, that families must spend on food for their kids.

Youth development programs create stronger communities for youth and

Here is an example of an outcome that doesn't have an easily identifiable market value. Most people would agree that equipping youth to be civically engaged is a very valuable thing. But how do you express that value in dollars? One way to think about it is, how else would youth achieve civic, social, and community engagement if they weren't involved in youth development programs, and what's the cost of those alternate activities? In this instance, attending music lessons might reasonably instill some of those same ideals. So, we can research the cost of music lessons and use that dollar value as a proxy for the value of youth development programs as it relates to civic, social, and community engagement for the participating youth.

their families:

- For the youth involved in civic, social, and community activities because of youth development programs, they each are receiving a benefit that is approximately the average cost of other youth-related activities, \$726, since music lessons, sports camp, or drama club could achieve the same type of engagement-related outcome for youth.

Youth development programs reduce corrections systems involvement for youth:

- For the youth who avoid interactions with law enforcement, courts, and corrections thanks to youth development programs, they will likely earn \$5,607 more on average annually because they do not have a criminal record dragging down their earnings potential.

Youth development programs improve health for youth:

- For the youth who don't becoming a teen parent thanks to a youth development program, they will avoid the \$10,410 annual cost of raising a child.
- For the youth who receive reproductive/sexual health care thanks to being in a youth development program, the value to them is approximately the same as the cost of comprehensive STD testing, \$116.
- For the youth who don't use tobacco, drugs, and alcohol because of their involvement in youth development programs, they avoid an average of \$1,518 in treatment costs.

Society experiences a different sort of value, even when it experiences the same positive changes that youth and families experience:

Youth development programs create stronger communities throughout Illinois:

- The value to society of the economic ripple effect of each of the youth development field full-time equivalent jobs is \$49,370, which represents wages spent in communities and the corresponding spending that those dollars facilitate.
- The value to society of the economic ripple effect each job youth hold due to youth development programs is \$1,585, which represents wages spent in communities and the corresponding spending that those dollars facilitate.

Youth development programs reduce corrections systems involvement for the state:

- The value to society of the youth avoiding interactions with law enforcement, courts, and corrections is \$38,194 per youth, which is the average tangible and intangible cost of one criminal offense.

Youth development programs improve health:

Our approach to evidencing outcomes and valuing them relies on using the best available research and information in a common-sense manner. We recognize that this is inherently imprecise and doesn't constitute rigorous evaluation. We believe that at the sector or field level, it is directionally accurate.

- The value to society of youth avoiding teen parenthood is \$31,004 per youth, representing the public cost of teen childbearing.
- The value to society of the youth receiving reproductive/sexual health care is \$634 per youth, representing the direct and indirect cost of one untreated sexually transmitted disease case.
- The value to society of the youth avoiding tobacco, drugs, and alcohol is \$13,274, which is the public cost of treating one instance of substance abuse.

Youth development programs increase workforce engagement for the state:

- The value to society of the full-time equivalent jobs in the youth development field is \$13,065, which is the annual average total tax paid per worker.
- The value to society of the jobs held by youth through the programs is \$197, which is the annual average income tax paid per job.
- The value to society of the youth who pay more taxes because they graduate high school is \$2,597, which is the difference between annual total taxes paid by a high school graduate and a drop out.

Youth development programs improve Illinois school systems:

- The value to society of the students who are achieving academically thanks to youth development programs is \$1,321, which is the value of the annual per pupil expenditure on tutoring.
- The value to society of the students avoiding suspension thanks to a youth development program is \$206, which is the per student administrative cost of processing a suspension.
- The value to society of the non-school youth development staff working in schools is \$61,740, the average annual salary of a school counselor.

This concept—what would have happened naturally in the absence of the program—is called the “counterfactual” in research terms. In SROI-speak, it’s called “deadweight.”

This SROI analysis of the Illinois nonprofit youth development field covers the 5-year impact of 1 year of programming. This is in contrast to other approaches that sometimes estimate the life-long impact.

Appendix D has all the detail about what duration and drop-off we ascribed, with the help of our stakeholders and research, to each outcome. Unless there was a pretty

MORE DISCOUNTING..Accounting for Weakening Effects Over Time and Other Non-Monetary Investments

In an effort to not over claim youth development's contribution to creating change for youth and society, we've already excluded the portion of results that would likely have happened even in the absence of youth development programs. There are several other ways we must discount impact in order to further ensure we're not over attributing impact to youth development programs.

First, we have to assess whether the outcomes last beyond the duration of programming. For example, to the degree that youth development programs help facilitate high school graduation, the question becomes: does the benefit of high school graduation extend beyond the moment in time in which it is achieved? Obviously, the answer here is yes; no one un-graduates high school, so the benefit of a high school diploma—higher earnings potential—lasts a lifetime.

Other outcomes, like improved work stability for parents, aren't so clear cut.

compelling and logical case otherwise, we opted to be conservative and say that the benefits do not extend into subsequent years.

Once a youth exits the youth development program, her parents will have to either find other arrangements for ensuring her supervision while she's out of school and they are at work, or work less to be home themselves. So there is little to no effect that lingers into the post-program years.

In instances where the outcome duration lasts beyond the year in which youth development programs are providing services, there is one more time-related consideration: does the magnitude or strength of the outcome drop-off in subsequent years? For example, there is a case to be made that academic achievement in one year makes it much more likely a student will also achieve in subsequent years. But without the direct support of the youth development program, the grade-boosting affect is likely less, so it's important to discount the academic achievement impacts of youth development in the post-program years.

This concept in SROI terms is called attribution.

The final consideration for discounting impact has to do with whether the investments made into the youth development field—the \$302 million from public and private funders—is the only investment that can lay claim to facilitating the outcomes. In addition to monetary resources, nonprofits often rely on volunteers and in-kind donations, which represent money that didn't have to be spent, so we also subtract out the share of the youth development field's impact that can be attributed to volunteers and in-kind donations.

CALCULATING SOCIAL RETURN

To determine the SROI, we first multiply the quantity associated with each outcome by its financial proxy value and then subtract out the deadweight and attribution shares. For the outcomes that will last past the program year, we do the same for each subsequent year up to post-program year 5, reducing each estimate by the drop-off share.

The next step is to apply something called a discount rate. A discount rate is an accounting principle applied to estimates of future value. It honors the idea that money today is more desirable—it has more utility and less risk—today than 5 years down the road. After applying the discount rate of 10% to each year, then adding those values together and subtracting the value of the initial \$302 million investment into the youth development field in Illinois, the resulting number is the net present value.

It's easier to understand this by looking at a table that lays out all the numbers. If you're interested, see Appendices B and C.

From there, the math is simple: divide the net present value over the initial investment.

The Illinois nonprofit youth development field creates \$45 in socio-economic value for every dollar invested, \$9 of which is experienced by the youth and their families who participate in the programs and \$35 of which is experienced by society.

UNDERSTANDING SROI FINDINGS

SROI RESOURCES

Want to understand what SROI is all about?

[The SROI Network](#)

[REDF's SROI portfolio](#)

[nef](#)

[The Canadian Community Economic Development Network](#)

Considering doing an SROI and want more detail?

[The SROI Networks' Guide to SROI](#)

[A report on Valuing SROI](#)

Need some examples of how others have done SROI?

[The Children's Aid Society's SROI of Community Schools](#)

[The SROI Network's collection of SROI case studies](#)

[Women's Support Network's report on three SROI pilot projects](#)

This SROI analysis compares the money from public and private sources that is invested in the youth development field in Illinois to the value that the field creates for people in the programs and for society. The finding is expressed as a ratio: For every \$1 that is invested into this sector, \$45 are generated in economic and social benefits. Any dollar value that the sector generates above \$1 means that the investment in the program has not only paid for itself but has generated additional value. The higher the SROI finding, the bigger the bang for the buck.

Because this SROI analysis is inclusive of social outcomes that are usually not considered in traditional return on investment analyses, and because we add together the value that the youth and their families get *and* the value society experiences because of this field, the SROI findings ratio is higher than most people are used to seeing.

This is not to say this SROI is 100% inclusive. On the contrary, there were many outcomes that our expert advisors and providers felt were important, like that youth development programs help reduce rates of crime victimization and lower associated costs. After investigating all the outcomes, however, we could only include those for which there was evidence. Quite simply, the research base was sorely lacking in its examination of many youth development program outcomes, including impact on crime victimization.

The funding, research, and policy world should take note: though SROI helps us see a broader picture of impact and value, we're still only illuminating a piece of the picture. Until investments and commitments to conducting ongoing rigorous research for youth development are made, we'll be unable to get that complete picture that we desire.

This is to say that in a perfect world where all the necessary research existed to give us great evidence for all SROI calculations, individual SROI studies would be comparable. But in the real world, with its lack of sufficient evidence to substantiate all outcomes, that's not the case. So SROI studies, at least this youth development SROI and the others Donors Forum has commissioned, vary in how comprehensive they are in capturing the change fields and programs create—to compare is a false enterprise.

Where the real utility in an SROI lies is in its ability to assure us that our investments pay off and to demystify exactly how they pay off. And on that, this SROI of the nonprofit youth development field in Illinois is clear: investing in youth yields dividends.

APPENDIX A

YOUTH DEVELOPMENT FIELD SURVEY

To construct this SROI analysis of the youth development field in Illinois, we conducted an online survey of youth development programs in the state to gather some basic input and output data. The survey was sent to 275 verifiable, direct service organizations (meaning we were able to locate a federal employer identification number (FEIN) and corresponding 990 data for the organization) that are either classified in the National Taxonomy of Exempt Entities (NTEE) as Youth Development or that are known to provide youth development services.

Between 20% and 24% of all invited, direct service organizations answered each question. Responses to each question were then weighted by the response rate to estimate totals for the entire direct-service youth development field in Illinois.

Among responding direct service organizations, 35% are not classified as Youth Development in the NTEE, which is important because it indicates that the universe of organizations considered part of youth development for the purposes of this SROI is different than the universe considered in the National Center on Charitable Statistics (NCCS) data. Consequently, data on total revenue derived from this survey and used in this SROI analysis and the data on total revenue compiled by the NCCS on the Youth Development sector will differ.

The survey was conducted in August 2014, and though fiscal years differ from organization to organization, most respondents provided data that most closely aligns to the year 2013.

The exact age range that programs in this field serve varies. While some programs serve youth younger than age 6 and others serve youth up to age 24, the majority work with youth in the range of 6 through 17, and that is the age range used for the purposes of this analysis. Where specific outcomes relate more to an older or younger age bracket within this age range, we refine the analysis to just that subgroup.

APPENDIX B

IMPACT MAPS

The following impact maps lay out the theory of change for the nonprofit youth development field in Illinois. There are two maps: one displaying what changes for youth and their families as a result of being part of youth development programs and another displaying what changes for society—taxpayers, institutions, the shared economy—as a result of the youth development field working in communities throughout the state. They are called impact maps because they logically lay out the connections between the economic, social, and/or environmental change the field creates, how many people are impacted, and what the value of that is to those impacted.

This SROI and these impact maps reflect a 5-year time horizon of impact for 1 year of programming. This is to say that this is *not* an analysis of a lifetime value.

These two impact maps are high-level summaries of this analysis. Appendix C is the natural extension of these Appendix B impact maps and lays out the investments into the youth development field and compares that total investment to the discounted impact of the field—resulting in the SROI finding. Appendix D examines each row of each impact map and spells out all of the data sources, rationale, and any assumptions used in conducting the analysis.

YOUTH AND FAMILIES

Outcomes (what changes)							Discounting Impact (how much others contributes to change)			Calculating Impact
Description	Outcome	Indicator	Quantity	Duration	Outcomes start	Financial Proxy Value	Deadweight	Attribution	Drop-off	Quantity times financial proxy, less deadweight, displacement and attribution
How would the beneficiary describe the changes?	How would the program describe the changes?	How do you measure it?	How much change was there?	How many years does it last after end of program?	Does it start in during the program or after	What is the value of the change?				
Increased economic security	Youth graduate	# youth graduating	87,277	5	After	\$7,732	80%	20%	0%	\$106,617,601
	Increased work stability for parents	# parents with increased work stability	721,709	0	During	\$330	36%	20%	0%	\$122,321,027
	Youth are working	# youth working in youth development program sponsored/run jobs	57,012	0	During	\$1,325	26%	20%	0%	\$44,532,509
	Decreased family spending on food	# snacks	157,601,415	0	During	\$0.40	25%	50%	0%	\$23,879,923
# meals		22,640,181	0	During	\$2.54	25%	50%	0%	\$21,586,815	
Strengthened communities	Youth are involved in civic, social, and community activities	# youth involved in civic, social, and community activities	453,857	4	During	\$726	70%	20%	25%	\$79,114,395
Reduced corrections systems involvement	Youth avoid interactions with law enforcement, courts, and corrections system	# youth avoiding interactions with law enforcement, courts, and corrections system	459,990	0	During	\$5,607	71%	20%	0%	\$598,404,431
Improved health	Youth avoid teen parenthood	# youth avoiding teen parenthood	517,378	1	During	\$10,410	83%	20%	0%	\$732,502,816
	Youth receive reproductive/sexual health care	# youth receiving reproductive/sexual health care	496,789	1	During	\$116	65%	20%	0%	\$16,175,962

	Youth avoid tobacco, drug, and alcohol use	# youth avoiding tobacco, drug, and alcohol use	558,122	1	During	\$1,518	84%	20%	0%	\$108,454,775
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SOCIETY

Outcomes (what changes)							Discounting Impact (how much others contributes to change)			Calculating Impact
Description	Outcome	Indicator	Quantity	Duration	Outcomes start	Financial Proxy Value	Deadweight	Attribution	Drop-off	Quantity times financial proxy, less deadweight, displacement and attribution
How would the beneficiary describe the changes?	How would the program describe the changes?	How do you measure it?	How much change was there?	How many years does it last after end of program?	Does it start in during the program or after	What is the value of the change?				
Increased workforce engagement	People are employed in nonprofit youth development sector and pay taxes	# FTE jobs in sector	4,613	0	During	\$13,065	59%	20%	0%	\$19,625,055
	Youth are working and pay taxes	# youth working in youth development program sponsored/run jobs	57,012	0	During	\$197	26%	20%	0%	\$6,630,127
	Youth graduate and pay taxes	# youth graduating	87,277	5	After	\$2,597	81%	20%	0%	\$35,356,001
Improved school systems	Students achieve academically	# students with improved grades	85,494	1	During	\$1,321	7%	20%	0%	\$84,033,837
	Disciplinary action declines	# students avoiding disciplinary action (suspension)	793,157	1	During	\$206	62%	20%	0%	\$49,556,731
	School support staff is supplemented	# YD staff in schools	2,032	0	During	\$61,740	50%	20%	0%	\$50,170,733

Reduced corrections systems involvement	Youth avoid interactions with law enforcement, courts, and corrections system	# youth avoiding interactions with law enforcement, courts, and corrections system	459,990	0	During	\$38,194	71%	20%	0%	\$4,075,963,852
Improved health	Youth avoid teen parenthood	# youth avoiding teen parenthood	517,378	1	During	\$31,004	83%	20%	0%	\$2,181,512,688
	Youth receive reproductive/sexual health care	# youth receiving reproductive/sexual health care	496,789	1	During	\$634	65%	20%	0%	\$88,224,051
	Youth avoid tobacco, drug, and alcohol use	# youth avoiding tobacco, drug, and alcohol use	558,122	1	During	\$13,274	84%	20%	0%	\$948,266,913
Strengthened communities	Increased economic development through ripple effect of wages	# FTE jobs in sector	4,613	0	During	\$49,370	59%	20%	0%	\$74,158,654
		# youth working in youth development program sponsored/run jobs	57,012	0	During	\$1,585	26%	20%	0%	\$53,280,019

APPENDIX C

CALCULATING SOCIAL RETURN ON INVESTMENT

Government investment in nonprofit youth development	\$116,618,593
Private investment in nonprofit youth development	\$238,349,717
Total Investment	\$301,787,431

	Program Year	Year 1	Year 2	Year 3	Year 4	Year 5
Total	\$9,378,395,313	\$4,429,815,770	\$201,309,398	\$186,475,449	\$175,349,987	\$141,973,602
Present value of each year (Discount rate = 10%)		\$4,027,105,245	\$166,371,404	\$140,101,765	\$119,766,401	\$88,154,437
Total Present Value (PV)						\$13,919,894,564
Net Present Value (PV minus the investment)						\$13,618,107,133
Social Return Value per amount invested in Illinois's nonprofit youth development field						\$45

Note: There is no set standard for what discount rate to use in SROI or in other forms of value assessment like ROI and cost-benefit analyses. Some analysts use the U.S. Treasury Rate, which is relatively low and amounts to discounting future value by only 1-3%. Others opt to use rates more in line with high-risk investing, upwards of 20%. In an effort to acknowledge the uncertainty associated with predicting future outcomes of social and environmental programs and to acknowledge that value today is more desirable than value at some point in the future, this analysis applies a 10% discount rate over 5 years.

APPENDIX D

DETAILED EXPLANATION OF SOURCES AND METHODS FOR EACH OUTCOME

This appendix examines each row of the impact maps in Appendix B and spells out all of the data sources, rationale, and any assumptions used in conducting the analysis. The column headings from the impact maps in Appendix B are transposed as row headings in the following tables here in Appendix D.

While these tables lay out the numbers used and the calculations performed, it is important to note that if a person tries to recreate the calculations with a calculator, he or she will in most instances not arrive at the exact final numbers. This is because in our calculations we most often used unrounded numbers and here we present rounded numbers for clarity sake.

All dollar values are in 2013 dollars.

We used the most rigorous studies possible to evidence outcomes, though endeavoring to do this often revealed holes in the research base more than it yielded satisfyingly appropriate studies. Where there was no solid evidence that the field produced a certain outcome, we excluded that outcome from this analysis.

Where assumptions needed to be made, we sought out the expert advice of the project advisors, applied common sense and logical thinking, and then made very conservative assumptions so as not to overstate the impact of the field.

YOUTH AND FAMILIES: Increased Economic Security—Youth Graduate

Youth development programs serve to increase participants' economic security when, with the help of the youth development program, the participants graduate from high school, thereby increasing their potential earning power.

Quantity: How much change was there?	87,277 youth graduate	From the youth development field survey, we learned that programs serve an estimated 1,201,754 Illinois youth. ¹ Take two experimental studies of youth development programs (one of a more rural program, another of more urban program) and average the graduation rates for the treatment group in both experiments, resulting in 87%. ² Determine the share of all children ages 6 to 17 in Illinois who are age 17, closest to graduation age, which is 8%. ³ (1,201,754 * 8%) * 87% = 87,277 youth graduating
Duration: How many years does it last after end of program? (maximum of 5 years)	5 years	The earning power of having a high school diploma over not having one lasts beyond the year the diploma is earned.
Outcomes Start: Does it start during the program or after?	After	Some youth likely graduate high school while still in their youth development program, but many will not.
Financial Proxy Value: What is the value of the change?	\$7,732, the annual earnings differential between those with a high school diploma and those without	The median annual earnings for an Illinoisan without a high school diploma or equivalency is \$19,688 compared to \$27,420 for those with a high school diploma or equivalency. ⁴ \$27,420 - \$19,688 = \$7,732 more in annual earnings potential for high school graduates.
Discounting Impact: Deadweight	80% of youth would have graduated even without the support of a	Two experimental studies of youth development programs (one of a more rural program, another of more urban program) have graduation rates for control groups (those who did not participate in the youth development program), and averaging them results in a rate of 80%. ⁵

¹ See Appendix A for details on the field survey.

² Piescher, K., Hong, S., Blyth, D., & Nippolt, P. (2014). *Academic achievement of youth in the 4-H program*. (Minn-LInK Brief No. 19). Available at http://casw.umn.edu/portfolio_category/minn-link/; 96.3% of the treatment group graduated. Shirm, A., Stuart, E., & McKie, A. (2006, July). *The Quantum Opportunity Program Demonstration: Final impacts*. Washington, DC: Mathematica Policy Research, Inc.: 78% of the treatment group received their high school diploma or GED.

³ U.S. Census Bureau's 2012 American Community Survey 1-year estimates program.

⁴ U.S. Census Bureau's 2012 American Community Survey 1-year estimates program. 2012 wages inflated to 2013 dollars using the U.S. Department of Labor, Bureau of Labor Statistics' *CPI Detailed Report Data for November 2014*, available at <http://www.bls.gov/cpi/cpid1411.pdf>. 2012 to 2013 inflation factor is 1.0146.

⁵ Piescher, K., Hong, S., Blyth, D., & Nippolt, P. (2014). *Academic achievement of youth in the 4-H program*. (Minn-LInK Brief No. 19). Available at http://casw.umn.edu/portfolio_category/minn-link/; 85.5% of the control group graduated. Shirm, A., Stuart, E., & McKie, A. (2006, July). *The Quantum Opportunity Program Demonstration: Final impacts*. Washington, DC: Mathematica Policy Research, Inc.: 75% of the control group received their high school diploma or GED.

	youth development program.	
Discounting Impact: Attribution	20% of this outcome can be attributed to other program contributions aside from cash revenue.	<p>There are two other potential major “investments” into youth development programs that can take some of the credit for producing this outcome: volunteers and in-kind donations. The total value of volunteer hours in Illinois is \$7.2 billion.⁶ The entire Illinois nonprofit sector has a combined revenue of \$73 billion⁷ and the youth development programs included in this analysis have a total revenue of \$302 million,⁸ which is 0.41% of the total nonprofit revenue in the state. Multiply the \$7.2 billion of volunteer time value by 0.41% to estimate the share of the volunteer time value that belongs to the youth development field. Divide that figure by the \$302 million in youth development field revenue to arrive at 9.8%, which is how much the value of volunteer time represents of the total youth development revenue.</p> $(\$7,200,000,000 * (\$301,787,431 / \$73,312,774,643)) / \$301,787,431 = 9.8\%$ <p>There are no good data sources to understand the total value of in-kind donations to programs in the Illinois youth development field. In light of this, we estimated the in-kind donation value to be equal to that of the value of volunteer time for youth development programs, and so double the 9.8% and round to a 20% attribution discounting rate.</p>
Discounting Impact: Drop-off	0%	While the earning power of a high school diploma has dropped off over the course of the last several decades, it is unlikely that there would be noticeable depreciation in a 5-year time period.

Calculating Impact	Calculating Social Return					
Quantity times financial proxy, less deadweight, displacement and attribution	Discount rate = 10%					
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
	\$106,617,601	\$-	\$106,617,601	\$106,617,601	\$106,617,601	\$106,617,601

⁶ Corporation for National & Community Service. *Volunteering and civic engagement in Illinois*. Available at <http://www.volunteeringinamerica.gov/IL>. Reflects 2013.

⁷ Urban Institute. *National Center for Charitable Statistics*. Available at <http://nccsweb.urban.org/tablewiz/tw.php>

⁸ See Appendix A for details on the field survey.

YOUTH AND FAMILIES: Increased Economic Security—Increased Work Stability for Parents

Youth development programs serve to increase parental work stability because the programs stand in as child care so parents can work more hours.

<p>Quantity: How much change was there?</p>	<p>721,709 parents with increased work stability</p>	<p>From the youth development field survey, we learned that programs serve an estimated 1,201,754 Illinois youth.⁹ Some of these youth may be from the same families, and since we do not want to over count parents impacted, we use the U.S. Census Bureau's 2010 Census to understand that 43% of American families with children have 1 child, 37% have 2 children, and 20% have 3 or more, and we weight the number of youth in programs by these figures.¹⁰ From the youth development field survey, we also learn that 40% of youth have 2 working parents and 44% have 1 working parent. A study on the impacts of youth development programs indicates that 71% of parents reported that they were able to work more hours because their children were in the program.¹¹</p> <p>$(1,201,754 * 43\%) + ((1,201,754 * 37\%) / 2) + ((1,201,754 * 20\%) / 3) = 818,839$ unique families with children in youth development programs $((818,839 * 40\%) * 2) + ((818,839 * 44\%)) = 1,016,492$ parents with children in youth development programs $1,016,492 * 71\% = 721,709$ parents with increased work stability</p>
<p>Duration: How many years does it last after end of program? (maximum of 5 years)</p>	<p>0 years</p>	<p>Once their children are no longer in the youth development program, parents no longer have this support that allows them to work more hours.</p>
<p>Outcomes Start: Does it start during the program or after?</p>	<p>During</p>	<p>This benefit to parents only occurs while the program is in operation.</p>
<p>Financial Proxy Value: What is the value of the change?</p>	<p>\$330, the value of extra wages earned by parents because they missed less work</p>	<p>A study on parental stress shows that parents miss an average of 5 days of work a year due to the stress of worrying about care for their out-of-school children.¹² We assume an 8 hour work day and a very conservative wage of \$8.25, Illinois's minimum wage in 2013.</p> <p>$5 * 8 * \\$8.25 = \\330</p>
<p>Discounting Impact: Deadweight</p>	<p>36% of youth would likely be in other program if they weren't in the one they're</p>	<p>In a study about after school parental stress, 36% of youth were in some sort of an after school program, so we assume that if they weren't in their current youth development program, 36% of youth would be in some other sort of program and their parents would still receive the same work-boosting impact.¹³</p>

⁹ See Appendix A for details on the field survey.

¹⁰ U.S. Census Bureau's Statistical Abstract of the United States, 2012.

¹¹ Russell, C., Mielke, M., & Reisner, E. (2009, September). *Evidence of program quality and youth outcomes in the DYCD Out-of-School Time Initiative: Report on the initiative's first three years*. New York: Policy Studies Associates, Inc. Available at http://www.nyc.gov/html/dycd/downloads/pdf/2012/OST_Evaluation_Report_September2009.pdf

¹² The Community, Families, & Work Program at Brandeis University. (2004, April). *Report of findings: Parental after-school stress project*. Waltham, MA: Author. Available at

http://www.brandeis.edu/barnett/research/docs/PASS_Findings.pdf

¹³ Barnett, R., & Gareis, K. (2006, February). Parental After-School Stress and Psychological Well-Being. *Journal of Marriage and Family*, 68, 101-108. Available at <http://www.brandeis.edu/barnett/docs/pass.pdf>

	currently in	
Discounting Impact: Attribution	20% of this outcome can be attributed to other program contributions aside from cash revenue.	<p>There are two other potential major “investments” into youth development programs that can take some of the credit for producing this outcome: volunteers and in-kind donations. The total value of volunteer hours in Illinois is \$7.2 billion.¹⁴ The entire Illinois nonprofit sector has a combined revenue of \$73 billion¹⁵ and the youth development programs included in this analysis have a total revenue of \$302 million,¹⁶ which is 0.41% of the total nonprofit revenue in the state. Multiply the \$7.2 billion of volunteer time value by 0.41% to estimate the share of the volunteer time value that belongs to the youth development field. Divide that figure by the \$302 million in youth development field revenue to arrive at 9.8%, which is how much the value of volunteer time represents of the total youth development revenue.</p> <p>$(\\$7,200,000,000 * (\\$301,787,431 / \\$73,312,774,643)) / \\$301,787,431 = 9.8\%$</p> <p>There are no good data sources to understand the total value of in-kind donations to programs in the Illinois youth development field. In light of this, we estimated the in-kind donation value to be equal to that of the value of volunteer time for youth development programs, and so double the 9.8% and round to a 20% attribution discounting rate.</p>
Discounting Impact: Drop-off	0%	Since this outcome does not accrue past the program, there is no need to calculate drop off.

Calculating Impact	Calculating Social Return					
Quantity times financial proxy, less deadweight, displacement and attribution	Discount rate = 10%					
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
\$122,321,027	\$122,321,027	\$-	\$-	\$-	\$-	\$-

¹⁴ Corporation for National & Community Service. *Volunteering and civic engagement in Illinois*. Available at <http://www.volunteeringinamerica.gov/IL>. Reflects 2013.

¹⁵ Urban Institute. *National Center for Charitable Statistics*. Available at <http://nccsweb.urban.org/tablewiz/tw.php>

¹⁶ See Appendix A for details on the field survey.

YOUTH AND FAMILIES: Increased Economic Security—Youth Are Working

Many youth development programs run youth employment initiatives or offer paid work experience for participants.

Quantity: How much change was there?	57,012 youth working in youth development program sponsored/run jobs	From the youth development field survey, we know that an estimated 57,012 youth work in paid jobs in a year through an initiative of their youth development program. ¹⁷
Duration: How many years does it last after end of program? (maximum of 5 years)	0 years	Once kids are no longer in the youth development program, they cease to have access to that program-sponsored job.
Outcomes Start: Does it start during the program or after?	During	This benefit of paid work begins and ends during the program period.
Financial Proxy Value: What is the value of the change?	\$1,325, the value of the average wage per youth job	The Illinois Department of Human Services requires a wage of \$9 per hour for the Community Youth Employment Program. ¹⁸ A study of Recovery Act youth jobs programs shows us that youth worked on average 6.4 hours per week for an average of 23 weeks. ¹⁹ \$9 * (6.4 * 23) = \$1,325 per year in average wages for a youth development program-sponsored job
Discounting Impact: Deadweight	26%	The employment rate for 16 to 19 year olds in Illinois is 26%, ²⁰ so we assume that 26% of these youth would be employed elsewhere if they were not employed through the youth development program.
Discounting Impact: Attribution	20% of this outcome can be attributed to other program contributions aside from cash revenue.	There are two other potential major “investments” into youth development programs that can take some of the credit for producing this outcome: volunteers and in-kind donations. The total value of volunteer hours in Illinois is \$7.2 billion. ²¹ The entire Illinois nonprofit sector has a combined revenue of \$73 billion ²² and the youth development programs included in this analysis have a total revenue of \$302 million, ²³ which is 0.41% of the total nonprofit revenue in the state. Multiply the \$7.2 billion of volunteer time value by 0.41% to estimate the share of the volunteer time value that belongs to the youth development field. Divide that figure by the \$302 million in youth development field revenue to arrive at 9.8%, which is how much the value of volunteer time represents of the total youth development revenue.

¹⁷ See Appendix A for details on the field survey.

¹⁸ Illinois Department of Human Services. *Services for Youth Development Programming RFA*. Available at http://www.dhs.state.il.us/page.aspx?item=73611#a_toc49

¹⁹ Chicago Jobs Council. (2010, May). *Lessons from the Recovery Act: Opportunities for young people in 2009 reveals need for more permanent summer employment strategy*. Chicago: Authors. Available at http://cjc.net/wp-content/uploads/2011/03/YouthSummerJobsBrief_May2010.pdf

²⁰ U.S. Census Bureau's 2012 American Community Survey 1-year estimates program.

²¹ Corporation for National & Community Service. *Volunteering and civic engagement in Illinois*. Available at <http://www.volunteeringinamerica.gov/IL>. Reflects 2013.

²² Urban Institute. *National Center for Charitable Statistics*. Available at <http://nccsweb.urban.org/tablewiz/tw.php>

²³ See Appendix A for details on the field survey.

		$(\$7,200,000,000 * (\$301,787,431 / \$73,312,774,643)) / \$301,787,431 = 9.8\%$ <p>There are no good data sources to understand the total value of in-kind donations to programs in the Illinois youth development field. In light of this, we estimated the in-kind donation value to be equal to that of the value of volunteer time for youth development programs, and so double the 9.8% and round to a 20% attribution discounting rate.</p>
Discounting Impact: Drop-off	0%	Since this outcome does not accrue past the program, there is no need to calculate drop off.

Calculating Impact	Calculating Social Return					
Quantity times financial proxy, less deadweight, displacement and attribution	Discount rate = 10%					
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
\$44,532,509	\$44,532,509	\$-	\$-	\$-	\$-	\$-

YOUTH AND FAMILIES: Increased Economic Security—Decreased Family Spending on Food

When youth development programs feed kids, that is one less snack or one less meal that families need to purchase, leading to decreased family spending on food.

<p>Quantity: How much change was there?</p>	<p>157,601,415 snacks and 22,640,181 meals served in youth development programs</p>	<p>We assume that programs that serve snacks, serve 1 snack per youth per day, and we assume that there are 176 school days²⁴ and 40 summer days per year (8 week program, 5 days a week). From the youth development field survey we know that 61% of school year and 61% of summer programs serve a snack, and also that the field serves 1,201,754 youth annually.²⁵</p> <p>$((176 * 1 * 1,201,754) * 61\%) + ((40 * 1 * 1,201,754) * 61\%) = 157,601,415$ snacks served in course of year</p> <p>We assume that programs that serve meals serve 1 meal per youth per day, and we assume that there are 25 potential school-year days that meals would be served (35 Saturdays minus 10 for holiday weekends and other time off) and 40 summer days per year (8 week program, 5 days a week). From the youth development field survey we know that 13% of school-year programs and 39% of summer programs serve meals, and also that the field serves 1,201,754 youth annually.²⁶</p> <p>$((25 * 1 * 1,201,754) * 13\%) + ((40 * 1 * 1,201,754) * 39\%) = 22,640,181$ meals served in course of year</p>
<p>Duration: How many years does it last after end of program? (maximum of 5 years)</p>	<p>0 years</p>	<p>Once youth are no longer in the youth development program, they cease to have access to program-provided meals and snacks.</p>
<p>Outcomes Start: Does it start during the program or after?</p>	<p>During</p>	<p>This benefit of program-provided meals and snacks begins and ends during the program period.</p>
<p>Financial Proxy Value: What is the value of the change?</p>	<p>\$0.40 and \$2.54, the value of decreased family spending for each snack and each meal provided in youth development</p>	<p>The federal reimbursement rate for after school reduced-price food programs is \$0.41 per snack and \$2.58 per meal. Deflate to 2013 dollars from 2014 dollars to reach \$0.40 and \$2.54.²⁷</p>

²⁴ Illinois Legal Aid. *How long must a school day and school year last?* Available at http://www.illinoislegalaid.org/index.cfm?fuseaction=home.dsp_content&contentid=5344

²⁵ See Appendix A for details on the field survey.

²⁶ See Appendix A for details on the field survey.

²⁷ Food Research and Action Center (FRAC). (n.d.). *Reimbursement rates & income guidelines for the Federal Child Nutrition Programs*. Washington, DC: Authors. Available at <http://frac.org/wp-content/uploads/2010/08/fedrates.pdf> 2014 prices deflated to 2013 dollars using the U.S. Department of Labor, Bureau of Labor Statistics' *CPI Detailed Report Data for November 2014*, available at <http://www.bls.gov/cpi/cpid1411.pdf>. 2014 to 2013 deflation factor is 0.9855.

	programs	
Discounting Impact: Deadweight	25%	We assume while family spending on food is surely reduced because of meals served in the program, it is not a direct 1:1 relationship. We set deadweight at 25% to indicate that families are likely still spending some of the money “saved” by program-sponsored food.
Discounting Impact: Attribution	50%	Many youth development programs do not pay for the food they provide to youth. It is donated or otherwise obtained through a variety of nutrition programs. We set attribution at 50% to honor the uncertainty about how much food programs truly pay for themselves.
Discounting Impact: Drop-off	0%	Since this outcome does not accrue past the program, there is no need to calculate drop off.

Calculating Impact	Calculating Social Return					
Quantity times financial proxy, less deadweight, displacement and attribution	Discount rate = 10%					
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
\$23,879,923	\$23,879,923	\$-	\$-	\$-	\$-	\$-
\$21,586,815	\$21,586,815	\$-	\$-	\$-	\$-	\$-

YOUTH AND FAMILIES: Strengthened Communities—Youth Are Involved in Civic, Social, and Community Activities

Youth development programs provide youth with opportunities to be engaged in the world around them and begin, hopefully, life-long commitments to being engaged citizens of their communities.

<p>Quantity: How much change was there?</p>	<p>453,857 youth civically/socially involved in their communities</p>	<p>From the youth development field survey, we know that programs serve an estimated 1,201,754 Illinois youth.²⁸ Since this is a benefit most likely to accrue to slightly older youth, we multiply youth served by 51%, the share of all Illinois youth who are ages 12 to 17.²⁹ Research shows us that 74% of youth program participants were involved in some sort of community or volunteer activity 4 years out of the program.³⁰</p> <p>$(1,201,754 * 51\%)*74\% = 453,857$ youth civically/socially involved in their communities</p>
<p>Duration: How many years does it last after end of program? (maximum of 5 years)</p>	<p>4 years</p>	<p>Research indicates that seeding civic and social engagement behaviors early in life holds at least 4 years post program.³¹</p>
<p>Outcomes Start: Does it start during the program or after?</p>	<p>During</p>	<p>Youth begin engagement behavior during the program.</p>
<p>Financial Proxy Value: What is the value of the change?</p>	<p>\$726, the value of what families would spend out-of-pocket to have their children similarly engaged</p>	<p>The value youth and their families put on youth being civically engaged can be operationalized as the out-of-pocket costs associated with other activities youth could be engaged in that would provide similar connections. This may be music lessons, sports camps, or theater workshops. We researched the costs of some of these activities and averaged them, then deflated the 2014 dollars to 2013 dollars.³²</p> <p><i>Music lessons:</i> \$1,386 per year (at \$462 for 3, 8-week sessions)³³ <i>Sports camp:</i> \$150 per camp (1 camp per year)³⁴ <i>Theater camp:</i> \$675 per camp (1 camp per year)³⁵</p> <p>$((\\$1,386 + \\$150 + \\$675)/3) * 0.9855 = \\726, the value of what families would spend out-of-pocket to have their children similarly engaged.</p>

²⁸ See Appendix A for details on the field survey.

²⁹ U.S. Census Bureau's 2012 American Community Survey 1-year estimates program.

³⁰ Herrera, C., Grossman, J.B., & Linden, L. (2013). *Staying on track: Testing Higher Achievement's long-term impact on academic outcomes and high school choice*. New York: A Public/Private Ventures project distributed by MDRC. Available at http://www.mdrc.org/sites/default/files/staying_on_track_testing_higher_achievement.pdf

³¹ Herrera, C., Grossman, J.B., & Linden, L. (2013). *Staying on track: Testing Higher Achievement's long-term impact on academic outcomes and high school choice*. New York: A Public/Private Ventures project distributed by MDRC. Available at http://www.mdrc.org/sites/default/files/staying_on_track_testing_higher_achievement.pdf

³² 2014 prices deflated to 2013 dollars using the U.S. Department of Labor, Bureau of Labor Statistics' *CPI Detailed Report Data for November 2014*, available at <http://www.bls.gov/cpi/cpid1411.pdf>. 2014 to 2013 deflation factor is 0.9855.

³³ Old Town School of Folk Music. *Private lessons*. Available at <http://www.oldtownschool.org/classes/lessons/>

³⁴ Boys & Girls Westy Doty Shooting Camp, P.C. Available at <http://www.westydotyshootingcamp.com/pdf/2015/MossvilleFeb-March2015.pdf>

³⁵ Chicago Children's Theatre. *Summer camp*. Available at <http://chicagochildrenstheatre.org/summercamp>

Discounting Impact: Deadweight	70%	An experimental study of a youth development program shows that 70% of the control group was involved in some sort of community or volunteer activity at 4-year follow up. ³⁶
Discounting Impact: Attribution	20% of this outcome can be attributed to other program contributions aside from cash revenue.	<p>There are two other potential major “investments” into youth development programs that can take some of the credit for producing this outcome: volunteers and in-kind donations. The total value of volunteer hours in Illinois is \$7.2 billion.³⁷ The entire Illinois nonprofit sector has a combined revenue of \$73 billion³⁸ and the youth development programs included in this analysis have a total revenue of \$302 million,³⁹ which is 0.41% of the total nonprofit revenue in the state. Multiply the \$7.2 billion of volunteer time value by 0.41% to estimate the share of the volunteer time value that belongs to the youth development field. Divide that figure by the \$302 million in youth development field revenue to arrive at 9.8%, which is how much the value of volunteer time represents of the total youth development revenue.</p> <p>$(\\$7,200,000,000 * (\\$301,787,431 / \\$73,312,774,643)) / \\$301,787,431 = 9.8\%$</p> <p>There are no good data sources to understand the total value of in-kind donations to programs in the Illinois youth development field. In light of this, we estimated the in-kind donation value to be equal to that of the value of volunteer time for youth development programs, and so double the 9.8% and round to a 20% attribution discounting rate.</p>
Discounting Impact: Drop-off	25%	We assume that while the benefit of being civically engaged does stay with youth beyond the end of the program, its effect may not be as strong as it was while they were in the program and that the effect diminishes by 25% each subsequent year after the program ends.

Calculating Impact	Calculating Social Return					
Quantity times financial proxy, less deadweight, displacement and attribution	Discount rate = 10%					
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
\$79,114,395	\$79,114,395	\$79,114,395	\$59,335,797	\$44,501,847	\$33,376,386	\$-

³⁶ Herrera, C., Grossman, J.B., & Linden, L. (2013). *Staying on track: Testing Higher Achievement's long-term impact on academic outcomes and high school choice*. New York: A Public/Private Ventures project distributed by MDRC. Available at http://www.mdrc.org/sites/default/files/staying_on_track_testing_higher_achievement.pdf

³⁷ Corporation for National & Community Service. *Volunteering and civic engagement in Illinois*. Available at <http://www.volunteeringinamerica.gov/IL>. Reflects 2013.

³⁸ Urban Institute. *National Center for Charitable Statistics*. Available at <http://nccsweb.urban.org/tablewiz/tw.php>

³⁹ See Appendix A for details on the field survey.

YOUTH AND FAMILIES: Reduced Corrections System Involvement—Youth Avoid Interactions with Law Enforcement, Courts, and Corrections System

By keeping youth off the streets during after school and/or weekend hours when youth criminal activity and youth victimization are most likely to occur, and by providing a space to connect with positive role models and influences, youth development programs decrease the likelihood that kids come into contact with the corrections system.

Quantity: How much change was there?	459,990 youth avoid interactions with law enforcement, courts, and corrections system	From the youth development field survey, we know that programs serve an estimated 1,201,754 Illinois youth. ⁴⁰ Since this is a benefit most likely to accrue to slightly older youth, we multiply youth served by 51%, the share of all Illinois youth who are ages 12 to 17. ⁴¹ In an experimental study of a youth program, 75% of the treatment group was never arrested or charged with a crime. ⁴² $(1,201,754 * 51%) * 75% = 459,990$ youth avoid interactions with law enforcement, courts, and corrections system
Duration: How many years does it last after end of program? (maximum of 5 years)	0 years	While there is likely some residual effect of youth programs on the likelihood of being involved in the corrections system, it's unclear what that effect is, so to be conservative, we say that the systems avoidance benefit of youth programs only accrues while youth are in the program.
Outcomes Start: Does it start during the program or after?	During	The benefit begins and ends accruing during the program period.
Financial Proxy Value: What is the value of the change?	\$5,607, the value of the increase in wages associated with not having a criminal record	A study on the impact of incarceration on future wages shows that individual's wages are depressed by 14.5% to 26.4%, an average of 20.5%, due to incarceration. ⁴³ A high school graduate in Illinois earns a median wage of \$27,420. ⁴⁴ $\$27,420 * 20.5% = \$5,607$, the value of the increase in wages associated with not having a criminal record
Discounting Impact: Deadweight	71%	In an experimental study of a youth program, 71% of the control group was never arrested or charged with a crime. ⁴⁵
Discounting Impact: Attribution	20% of this outcome can be	There are two other potential major "investments" into youth development programs that can take some of the credit for producing this outcome: volunteers and in-kind donations. The total value of volunteer hours in Illinois is \$7.2 billion. ⁴⁶ The

⁴⁰ See Appendix A for details on the field survey.

⁴¹ U.S. Census Bureau's 2012 American Community Survey 1-year estimates program.

⁴² Schirm, A., Rodriguez-Planas, N., Maxfield, M., & Tuttle, C. (2003, August). *The Quantum Opportunity Program Demonstration: Short-term impacts*. Washington, DC: Mathematica Policy Research, Inc.

⁴³ Geller, A., Garfinkel, I., & Western, B. (2006, August). *The effects of incarceration on employment and wages: An analysis of the Fragile Families Survey*. (Working Paper #2006-01-FF). Princeton: Center for Research on Child Wellbeing. Available at <http://crcw.princeton.edu/workingpapers/WP06-01-FF.pdf>

⁴⁴ U.S. Census Bureau's 2012 American Community Survey 1-year estimates program. 2012 prices inflated to 2013 dollars using the U.S. Department of Labor, Bureau of Labor Statistics' *CPI Detailed Report Data for November 2014*, available at <http://www.bls.gov/cpi/cpid1411.pdf>. 2012 to 2013 inflation factor is 1.0146.

⁴⁵ Schirm, A., Rodriguez-Planas, N., Maxfield, M., & Tuttle, C. (2003, August). *The Quantum Opportunity Program Demonstration: Short-term impacts*. Washington, DC: Mathematica Policy Research, Inc.

⁴⁶ Corporation for National & Community Service. *Volunteering and civic engagement in Illinois*. Available at <http://www.volunteeringinamerica.gov/IL>. Reflects 2013.

	<p>attributed to other program contributions aside from cash revenue.</p>	<p>entire Illinois nonprofit sector has a combined revenue of \$73 billion⁴⁷ and the youth development programs included in this analysis have a total revenue of \$302 million,⁴⁸ which is 0.41% of the total nonprofit revenue in the state. Multiply the \$7.2 billion of volunteer time value by 0.41% to estimate the share of the volunteer time value that belongs to the youth development field. Divide that figure by the \$302 million in youth development field revenue to arrive at 9.8%, which is how much the value of volunteer time represents of the total youth development revenue.</p> <p>$(\\$7,200,000,000 * (\\$301,787,431 / \\$73,312,774,643)) / \\$301,787,431 = 9.8\%$</p> <p>There are no good data sources to understand the total value of in-kind donations to programs in the Illinois youth development field. In light of this, we estimated the in-kind donation value to be equal to that of the value of volunteer time for youth development programs, and so double the 9.8% and round to a 20% attribution discounting rate.</p>
Discounting Impact: Drop-off	0%	Since this outcome does not accrue past the program, there is no need to calculate drop off.

Calculating Impact	Calculating Social Return					
Quantity times financial proxy, less deadweight, displacement and attribution	Discount rate = 10%					
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
	\$598,404,431	\$-	\$-	\$-	\$-	\$-

⁴⁷ Urban Institute. *National Center for Charitable Statistics*. Available at <http://nccsweb.urban.org/tablewiz/tw.php>

⁴⁸ See Appendix A for details on the field survey.

YOUTH AND FAMILIES: Improved Health—Youth Avoid Teen Parenthood

Youth development programs place a heavy emphasis on making healthy life decisions and many explicitly teach safe sex.

Quantity: How much change was there?	517,378 youth avoid teen parenthood	From the youth development field survey, we know that programs serve an estimated 1,201,754 Illinois youth. ⁴⁹ Since this is a benefit most likely to accrue to slightly older youth, we multiply youth served by 51%, the share of all Illinois youth who are ages 12 to 17. ⁵⁰ In an experimental study of a youth program, 90% of the treatment group did not get pregnant or get someone else pregnant. ⁵¹ Among those who do get pregnant, the Illinois teen abortion rate is 32%. ⁵² $((1,201,754 * 51%) * 90%) - (((1,201,754 * 51%)*10%)*32%) = 517,378 \text{ youth avoid teen parenthood}$
Duration: How many years does it last after end of program? (maximum of 5 years)	1 year	While there is likely some residual effect of youth programs on the likelihood of getting pregnant, it's unclear what that effect is. So to be conservative, but also acknowledge that if youth don't get pregnant while in the program they won't have a child for at least 9 months if they get pregnant immediately after, we say that the benefit extends only 1 year post-program.
Outcomes Start: Does it start during the program or after?	During	The benefit begins during the program period.
Financial Proxy Value: What is the value of the change?	\$10,410, the annual cost of raising a baby that youth avoid by not becoming teen parents	The annual cost of raising a baby, inflated to 2013 dollars, is \$10,410 for a single-parent family with one child age 2 or younger with a pre-tax income less than \$60,640. ⁵³
Discounting Impact: Deadweight	83%	In an experimental study of a youth program, 83% of the control group did not get pregnant or get someone else pregnant. ⁵⁴
Discounting Impact: Attribution	20% of this outcome can be	There are two other potential major "investments" into youth development programs that can take some of the credit for producing this outcome: volunteers and in-kind donations. The total value of volunteer hours in Illinois is \$7.2 billion. ⁵⁵ The

⁴⁹ See Appendix A for details on the field survey.

⁵⁰ U.S. Census Bureau's 2012 American Community Survey 1-year estimates program.

⁵¹ Philliber, S., Williams Kaye, J., Herrling, S., & West, E. (2002). Preventing pregnancy and improving health care access among teenagers: An evaluation of the Children's Aid Society–Carrera Program. *Perspectives on Sexual and Reproductive Health*, 35(5):244-251.

⁵² Kost, K., & Henshaw, S. (2014). *U.S. teenage pregnancy, births and abortions, 2010: National and state trends by age, race and ethnicity*. New York: Guttmacher Institute. Available at <http://www.guttmacher.org/pubs/USTPTrends10.pdf>.

⁵³ Lino, M. (2013). Expenditures on Children by Families, 2012. Alexandria, VA: U.S. Department of Agriculture, Center for Nutrition Policy and Promotion. 2012 prices inflated to 2013 dollars using the U.S. Department of Labor, Bureau of Labor Statistics' *CPI Detailed Report Data for November 2014*, available at <http://www.bls.gov/cpi/cpid1411.pdf>. 2012 to 2013 inflation factor is 1.0146.

⁵⁴ Philliber, S., Williams Kaye, J., Herrling, S., & West, E. (2002). Preventing pregnancy and improving health care access among teenagers: An evaluation of the Children's Aid Society–Carrera Program. *Perspectives on Sexual and Reproductive Health*, 35(5):244-251.

⁵⁵ Corporation for National & Community Service. *Volunteering and civic engagement in Illinois*. Available at <http://www.volunteeringinamerica.gov/IL>. Reflects 2013.

	attributed to other program contributions aside from cash revenue.	<p>entire Illinois nonprofit sector has a combined revenue of \$73 billion⁵⁶ and the youth development programs included in this analysis have a total revenue of \$302 million,⁵⁷ which is 0.41% of the total nonprofit revenue in the state. Multiply the \$7.2 billion of volunteer time value by 0.41% to estimate the share of the volunteer time value that belongs to the youth development field. Divide that figure by the \$302 million in youth development field revenue to arrive at 9.8%, which is how much the value of volunteer time represents of the total youth development revenue.</p> <p>$(\\$7,200,000,000 * (\\$301,787,431 / \\$73,312,774,643)) / \\$301,787,431 = 9.8\%$</p> <p>There are no good data sources to understand the total value of in-kind donations to programs in the Illinois youth development field. In light of this, we estimated the in-kind donation value to be equal to that of the value of volunteer time for youth development programs, and so double the 9.8% and round to a 20% attribution discounting rate.</p>
Discounting Impact: Drop-off	0%	Since this outcome only accrues in the year immediately after the program ends, there is no need to calculate drop off.

Calculating Impact	Calculating Social Return					
Quantity times financial proxy, less deadweight, displacement and attribution	Discount rate = 10%					
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
\$732,502,816	\$732,502,816	\$732,502,816	\$-	\$-	\$-	\$-

⁵⁶ Urban Institute. *National Center for Charitable Statistics*. Available at <http://nccsweb.urban.org/tablewiz/tw.php>

⁵⁷ See Appendix A for details on the field survey.

YOUTH AND FAMILIES: Improved Health—Youth Receive Reproductive/Sexual Health Care

Youth development programs place a heavy emphasis on making healthy life decisions and many explicitly encourage preventive health care and seeking treatment.

Quantity: How much change was there?	496,789 youth receive reproductive/sexual health care	From the youth development field survey, we know that programs serve an estimated 1,201,754 Illinois youth. ⁵⁸ Since this is a benefit most likely to accrue to slightly older youth, we multiply youth served by 51%, the share of all Illinois youth who are ages 12 to 17. ⁵⁹ In an experimental study of a youth program, 81% of the treatment group made a reproductive health visit in the last year at 3 year follow-up. ⁶⁰ (1,201,754 * 51%) * 81% = 496,789 youth receive reproductive/sexual health care
Duration: How many years does it last after end of program? (maximum of 5 years)	1 year	While there is likely some residual effect of youth programs on the likelihood seeking health care, it's unclear what that effect is. So to be conservative, but also acknowledge that there is likely some lingering effect, we say that the benefit extends only 1 year post-program.
Outcomes Start: Does it start during the program or after?	During	The benefit begins during the program period.
Financial Proxy Value: What is the value of the change?	\$116, the cost of comprehensive STD testing.	The value to youth of receiving reproductive health care can be operationalized as what they would pay out-of-pocket to get that care. The cost of comprehensive sexually transmitted disease testing ranges from \$72 to \$164, the average of which is \$116, deflated from 2014 to 2013 dollars. ⁶¹
Discounting Impact: Deadweight	65%	In an experimental study of a youth program, 65% of the control group made a reproductive health visit in the last year at 3 year follow-up. ⁶²
Discounting Impact: Attribution	20% of this outcome can be attributed to other	There are two other potential major "investments" into youth development programs that can take some of the credit for producing this outcome: volunteers and in-kind donations. The total value of volunteer hours in Illinois is \$7.2 billion. ⁶³ The entire Illinois nonprofit sector has a combined revenue of \$73 billion ⁶⁴ and the youth development programs included

⁵⁸ See Appendix A for details on the field survey.

⁵⁹ U.S. Census Bureau's 2012 American Community Survey 1-year estimates program.

⁶⁰ Philliber, S., Williams Kaye, J., Herrling, S., & West, E. (2002). Preventing pregnancy and improving health care access among teenagers: An evaluation of the Children's Aid Society–Carrera Program. *Perspectives on Sexual and Reproductive Health*, 35(5):244-251.

⁶¹ Planned Parenthood. Available at <http://www.plannedparenthood.org/health-center/connecticut/new-britain/06050/new-britain-center-2945-90220/std-testing-treatment>. 2014 prices deflated to 2013 dollars using the U.S. Department of Labor, Bureau of Labor Statistics' *CPI Detailed Report Data for November 2014*, available at <http://www.bls.gov/cpi/cpid1411.pdf>. 2014 to 2013 deflation factor is 0.9855.

⁶² Philliber, S., Williams Kaye, J., Herrling, S., & West, E. (2002). Preventing pregnancy and improving health care access among teenagers: An evaluation of the Children's Aid Society–Carrera Program. *Perspectives on Sexual and Reproductive Health*, 35(5):244-251.

⁶³ Corporation for National & Community Service. *Volunteering and civic engagement in Illinois*. Available at <http://www.volunteeringinamerica.gov/IL>. Reflects 2013.

⁶⁴ Urban Institute. *National Center for Charitable Statistics*. Available at <http://nccsweb.urban.org/tablewiz/tw.php>

	program contributions aside from cash revenue.	<p>in this analysis have a total revenue of \$302 million,⁶⁵ which is 0.41% of the total nonprofit revenue in the state. Multiply the \$7.2 billion of volunteer time value by 0.41% to estimate the share of the volunteer time value that belongs to the youth development field. Divide that figure by the \$302 million in youth development field revenue to arrive at 9.8%, which is how much the value of volunteer time represents of the total youth development revenue.</p> <p>$(\\$7,200,000,000 * (\\$301,787,431 / \\$73,312,774,643)) / \\$301,787,431 = 9.8\%$</p> <p>There are no good data sources to understand the total value of in-kind donations to programs in the Illinois youth development field. In light of this, we estimated the in-kind donation value to be equal to that of the value of volunteer time for youth development programs, and so double the 9.8% and round to a 20% attribution discounting rate.</p>
Discounting Impact: Drop-off	0%	Since this outcome only accrues in the year immediately after the program ends, there is no need to calculate drop off.

Calculating Impact	Calculating Social Return					
Quantity times financial proxy, less deadweight, displacement and attribution	Discount rate = 10%					
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
\$16,175,962	\$16,175,962	\$16,175,962	\$-	\$-	\$-	\$-

⁶⁵ See Appendix A for details on the field survey.

YOUTH AND FAMILIES: Improved Health—Youth Avoid Tobacco, Drug, and Alcohol Use

Youth development programs place a heavy emphasis on making healthy life decisions and many explicitly teach substance avoidance.

Quantity: How much change was there?	558,122 youth avoid tobacco, drug, and alcohol use	From the youth development field survey, we know that programs serve an estimated 1,201,754 Illinois youth. ⁶⁶ Since this is a benefit most likely to accrue to slightly older youth, we multiply youth served by 51%, the share of all Illinois youth who are ages 12 to 17. ⁶⁷ In an experimental study of a youth program, 91% of the treatment group did not start drinking alcohol over the program period. ⁶⁸ (1,201,754 * 51%) * 91% = 558,122 youth avoid tobacco, drug, and alcohol use
Duration: How many years does it last after end of program? (maximum of 5 years)	1 year	While there is likely some residual effect of youth programs on the likelihood of avoiding substance use, it's unclear what that effect is. So to be conservative, but also acknowledge that there is likely some lingering effect, we say that the benefit extends only 1 year post-program.
Outcomes Start: Does it start during the program or after?	During	The benefit begins during the program period.
Financial Proxy Value: What is the value of the change?	\$1,518, the average cost of getting treatment for alcohol, drug, or tobacco dependency	The value to youth of not using substances can be operationalized as the avoided cost of receiving treatment for dependency. The average out-of-pocket cost for out-patient alcohol and substance use treatment in Illinois is \$4,730. ⁶⁹ The average cost of a smoking cessation treatment (average of four different prescription drugs and counseling combinations) is \$447. ⁷⁰ Since the Illinois youth tobacco use rate is over 3 times as high as the combined illicit substance and alcohol dependence or abuse rate, we give 3 times the weight to tobacco cessation treatment in the averaging. ⁷¹ ($\$447 * \$447 * \$447 * \4730) / 4 = \$1,518, the average cost of getting treatment for alcohol, drug, or tobacco dependency
Discounting Impact: Deadweight	84%	In an experimental study of a youth program, 84% of the control group did not start drinking alcohol over the program period. ⁷²

⁶⁶ See Appendix A for details on the field survey.

⁶⁷ U.S. Census Bureau's 2012 American Community Survey 1-year estimates program.

⁶⁸ Baldwin Grossman, J., Price, M., Fellerath, V., et. al. (2002, June). *Multiple choices after school: Findings from the Extended-Service Schools Initiative*. Philadelphia: Public/Private Ventures.

⁶⁹ Gateway Foundation. Personal communication. Average cost is \$300 per day of treatment, and most people average 4 sessions a week for 4 weeks. 2014 prices deflated to 2013 dollars using the U.S. Department of Labor, Bureau of Labor Statistics' *CPI Detailed Report Data for November 2014*, available at <http://www.bls.gov/cpi/cpid1411.pdf>. 2014 to 2013 deflation factor is 0.9855.

⁷⁰ Rumberger, J.S., Hollenbeak, C.S., & Kline, D. (2010, April). *Potential costs and benefits of smoking cessation: An overview of the approach to state specific analysis*. Harrisburg, PA: Penn State. Available at <http://www.lung.org/stop-smoking/tobacco-control-advocacy/reports-resources/cessation-economic-benefits/reports/SmokingCessationTheEconomicBenefits.pdf>. 2009 prices inflated to 2013 dollars using the U.S. Department of Labor, Bureau of Labor Statistics' *CPI Detailed Report Data for November 2014*, available at <http://www.bls.gov/cpi/cpid1411.pdf>. 2009 to 2013 inflation factor is 1.0859.

⁷¹ Boonn, A. (2014, December). *State cigarette tax rates and rank, date of last increase, annual pack sales & revenue, and related data*. Washington, DC: Campaign for Tobacco-Free Kids. Illinois youth smoking rate is 14.1%. SAMHSA, Center for Behavioral Health Statistics and Quality, National Survey on Drug Use and Health, 2010 and 2011 (2010 Data – Revised March 2012). *2010-2011 National Survey on Drug Use and Health Model-Based Estimates (50 States and the District of Columbia)*. Available at <http://www.samhsa.gov/data/NSDUH/2k11State/NSDUHsaeTables2011.pdf>. Illinois youth illicit substance dependence or abuse rate is 4.10% and the Illinois youth alcohol dependence or abuse rate is 3.92%.

⁷² Baldwin Grossman, J., Price, M., Fellerath, V., et. al. (2002, June). *Multiple choices after school: Findings from the Extended-Service Schools Initiative*. Philadelphia: Public/Private Ventures.

Discounting Impact: Attribution	20% of this outcome can be attributed to other program contributions aside from cash revenue.	<p>There are two other potential major “investments” into youth development programs that can take some of the credit for producing this outcome: volunteers and in-kind donations. The total value of volunteer hours in Illinois is \$7.2 billion.⁷³ The entire Illinois nonprofit sector has a combined revenue of \$73 billion⁷⁴ and the youth development programs included in this analysis have a total revenue of \$302 million,⁷⁵ which is 0.41% of the total nonprofit revenue in the state. Multiply the \$7.2 billion of volunteer time value by 0.41% to estimate the share of the volunteer time value that belongs to the youth development field. Divide that figure by the \$302 million in youth development field revenue to arrive at 9.8%, which is how much the value of volunteer time represents of the total youth development revenue.</p> <p>$(\\$7,200,000,000 * (\\$301,787,431 / \\$73,312,774,643)) / \\$301,787,431 = 9.8\%$</p> <p>There are no good data sources to understand the total value of in-kind donations to programs in the Illinois youth development field. In light of this, we estimated the in-kind donation value to be equal to that of the value of volunteer time for youth development programs, and so double the 9.8% and round to a 20% attribution discounting rate.</p>
Discounting Impact: Drop-off	0%	Since this outcome only accrues in the year immediately after the program ends, there is no need to calculate drop off.

Calculating Impact	Calculating Social Return					
Quantity times financial proxy, less deadweight, displacement and attribution	Discount rate = 10%					
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
\$108,454,775	\$108,454,775	\$108,454,775	\$-	\$-	\$-	\$-

⁷³ Corporation for National & Community Service. *Volunteering and civic engagement in Illinois*. Available at <http://www.volunteeringinamerica.gov/IL>. Reflects 2013.

⁷⁴ Urban Institute. *National Center for Charitable Statistics*. Available at <http://nccsweb.urban.org/tablewiz/tw.php>

⁷⁵ See Appendix A for details on the field survey.

SOCIETY: Strengthened Communities—Increased Economic Development Through Ripple Effect of Wages (Sector Employees)

Youth development programs employ thousands of Illinoisans who then spend a portion of their wages in their communities, infusing money into the local economy and precipitating an economic ripple effect as the businesses they spend their money at now have more money to spend.

Quantity: How much change was there?	4,613 full-time equivalent jobs in the youth development field	From the youth development field survey, we know that youth development programs employ approximately 4,613 full-time equivalents. ⁷⁶
Duration: How many years does it last after end of program? (maximum of 5 years)	0 years	Employment in the field lasts for the duration of the program year.
Outcomes Start: Does it start during the program or after?	During	People are employed during the program.
Financial Proxy Value: What is the value of the change?	\$49,370, the value of wages spent in communities and the ripple effect they produce.	<p>We inflate 2011 median annual earnings of the nonprofit workforce by educational level to 2013 dollars and then derive a weighted annual wage using educational attainment data on the nonprofit workforce, which results in a weighted annual median wage of \$48,186.⁷⁷ Subtract out the average total taxes paid, resulting in \$35,121 left to spend.⁷⁸ Using the average personal savings rate of 4.8%, we subtract out the share of wages saved, leaving the share of wages likely to be spent, \$33,435.⁷⁹ Illinois renters spend an average of 30.4% of their income on housing costs and the remaining 69.6% on other things.⁸⁰ Multiply the amount spent on housing by the Illinois housing multiplier of 1.5862, and multiply the remainder by the retail multiplier of 2.1359.⁸¹ To account for the fact that some spending likely happens outside of Illinois, subtract 25%.</p> <p> $\\$35,121 - (\\$35,211 * 4.8\%) = \\$33,435$ of wages likely to spend. $\\$33,435 * 30.4\% = \\$10,164$ spent on housing costs and $\\$33,435 * 69.6\% = \\$23,271$ spent on other things. $(\\$10,164 * 1.5863) + (\\$23,271 * 2.1359) = \\$65,827$ $\\$65,827 - (\\$65,827 * 25\%) = \\$49,370$, the value of wages spent in Illinois communities and the ripple effect they produce. </p>

⁷⁶ See Appendix A for details on the field survey.

⁷⁷ Building a Stronger Illinois. *Nonprofit employees*. Available at http://buildingstrongeril.com/statewide-profile/nonprofit-employees/#_VJ2lrF4Al. 2011 prices inflated to 2013 dollars using the U.S. Department of Labor, Bureau of Labor Statistics' *CPI Detailed Report Data for November 2014*, available at <http://www.bls.gov/cpi/cpid1411.pdf>. 2011 to 2013 inflation factor is 1.0356.

⁷⁸ See Appendix D, SOCIETY: Increased Workforce Engagement—People are Employed in Nonprofit Youth Development Sector and Pay Taxes.

⁷⁹ Bureau of Economic Analysis. *Comparison of personal saving in the National Income and Product Accounts (NIPAs) with personal saving in the Flow of Funds Accounts (FFAs)*. Available at <http://www.bea.gov/national/nipaweb/nipa-frb.asp>. 10-year personal savings average of 4.8% (2004-2013).

⁸⁰ U.S. Census Bureau's 2012 American Community Survey 1 year estimates program.

⁸¹ Bureau of Economic Analysis. *RIMS II Economic Output Multiplier*. On file with author. More information about RIMS II available at <http://blog.bea.gov/tag/rims-ii/>

Discounting Impact: Deadweight	59%	59% of Illinoisans age 16 and over are employed, so we assume that if their youth development field job weren't available, 59% of employees would find work elsewhere. ⁸²
Discounting Impact: Attribution	20% of this outcome can be attributed to other program contributions aside from cash revenue.	<p>There are two other potential major "investments" into youth development programs that can take some of the credit for producing this outcome: volunteers and in-kind donations. The total value of volunteer hours in Illinois is \$7.2 billion.⁸³ The entire Illinois nonprofit sector has a combined revenue of \$73 billion⁸⁴ and the youth development programs included in this analysis have a total revenue of \$302 million,⁸⁵ which is 0.41% of the total nonprofit revenue in the state. Multiply the \$7.2 billion of volunteer time value by 0.41% to estimate the share of the volunteer time value that belongs to the youth development field. Divide that figure by the \$302 million in youth development field revenue to arrive at 9.8%, which is how much the value of volunteer time represents of the total youth development revenue.</p> <p>$(\\$7,200,000,000 * (\\$301,787,431 / \\$73,312,774,643)) / \\$301,787,431 = 9.8\%$</p> <p>There are no good data sources to understand the total value of in-kind donations to programs in the Illinois youth development field. In light of this, we estimated the in-kind donation value to be equal to that of the value of volunteer time for youth development programs, and so double the 9.8% and round to a 20% attribution discounting rate.</p>
Discounting Impact: Drop-off	0%	Since this outcome does not accrue past the program, there is no need to calculate drop off.

Calculating Impact	Calculating Social Return					
Quantity times financial proxy, less deadweight, displacement and attribution	Discount rate = 10%					
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
	\$74,158,654	\$-	\$-	\$-	\$-	\$-

⁸² U.S. Census Bureau's 2012 American Community Survey 1 year estimates program.

⁸³ Corporation for National & Community Service. *Volunteering and civic engagement in Illinois*. Available at <http://www.volunteeringinamerica.gov/IL>. Reflects 2013.

⁸⁴ Urban Institute. *National Center for Charitable Statistics*. Available at <http://nccsweb.urban.org/tablewiz/tw.php>

⁸⁵ See Appendix A for details on the field survey.

SOCIETY: Strengthened Communities—Increased Economic Development Through Ripple Effect of Wages (Youth)

Many youth development programs run youth employment initiatives or offer paid work experience for participants.

Quantity: How much change was there?	57,012 youth working in youth development program sponsored/run jobs	From the youth development field survey, we know that an estimated 57,012 youth work in paid jobs in a year through an initiative of their youth development program. ⁸⁶
Duration: How many years does it last after end of program? (maximum of 5 years)	0 years	Once kids are no longer in the youth development program, they cease to have access to that program-sponsored job.
Outcomes Start: Does it start during the program or after?	During	Youth are employed during the program.
Financial Proxy Value: What is the value of the change?	\$1,585, the value of wages spent in communities and the ripple effect they produce.	Start with the average annual wages earned by youth in youth development programs, \$1,325. ⁸⁷ Subtract out the average total taxes paid, resulting in \$1,128 left to spend. ⁸⁸ Using the average personal savings rate of 4.8%, we subtract out the share of wages saved, leaving the share of wages likely to be spent, \$1,073. ⁸⁹ Illinois renters spend an average of 30.4% of their income on housing costs and the remaining 69.6% on other things. ⁹⁰ Multiply the amount spent on housing by the Illinois housing multiplier of 1.5862, and multiply the remainder by the retail multiplier of 2.1359. ⁹¹ To account for the fact that some spending likely happens outside of Illinois, subtract 25%. $\$1,128 - (\$1,128 * 4.8\%) = \$1,073$ of wages likely to spend. $\$1,073 * 30.4\% = \326 spent on housing costs and $\$1,073 * 69.6\% = \747 spent on other things. $(\$326 * 1.5863) + (\$747 * 2.1359) = \$2,113$ $\$2,113 - (\$2,113 * 25\%) = \$1,585$, the value of wages spent in Illinois communities and the ripple effect they produce.
Discounting Impact: Deadweight	26%	The employment rate for 16 to 19 year olds in Illinois is 26%, ⁹² so we assume that 26% of these youth would be employed elsewhere if they were not employed through the youth development program.
Discounting	20% of this	There are two other potential major “investments” into youth development programs that can take some of the credit for

⁸⁶ See Appendix A for details on the field survey.

⁸⁷ See Appendix D, YOUTH AND FAMILIES: Increased Economic Security—Youth Are Working.

⁸⁸ See Appendix D, SOCIETY: Increased Workforce Engagement—Youth are Working and Pay Taxes.

⁸⁹ Bureau of Economic Analysis. *Comparison of personal saving in the National Income and Product Accounts (NIPAs) with personal saving in the Flow of Funds Accounts (FFAs)*. Available at <http://www.bea.gov/national/nipaweb/nipa-frb.asp>. 10-year personal savings average of 4.8% (2004-2013).

⁹⁰ U.S. Census Bureau's 2012 American Community Survey 1 year estimates program.

⁹¹ Bureau of Economic Analysis. *RIMS II Economic Output Multiplier*. On file with author. More information about RIMS II available at <http://blog.bea.gov/tag/rims-ii/>

⁹² U.S. Census Bureau's 2012 American Community Survey 1-year estimates program.

Impact: Attribution	outcome can be attributed to other program contributions aside from cash revenue.	<p>producing this outcome: volunteers and in-kind donations. The total value of volunteer hours in Illinois is \$7.2 billion.⁹³ The entire Illinois nonprofit sector has a combined revenue of \$73 billion⁹⁴ and the youth development programs included in this analysis have a total revenue of \$302 million,⁹⁵ which is 0.41% of the total nonprofit revenue in the state. Multiply the \$7.2 billion of volunteer time value by 0.41% to estimate the share of the volunteer time value that belongs to the youth development field. Divide that figure by the \$302 million in youth development field revenue to arrive at 9.8%, which is how much the value of volunteer time represents of the total youth development revenue.</p> <p>$(\\$7,200,000,000 * (\\$301,787,431 / \\$73,312,774,643)) / \\$301,787,431 = 9.8\%$</p> <p>There are no good data sources to understand the total value of in-kind donations to programs in the Illinois youth development field. In light of this, we estimated the in-kind donation value to be equal to that of the value of volunteer time for youth development programs, and so double the 9.8% and round to a 20% attribution discounting rate.</p>
Discounting Impact: Drop-off	0%	Since this outcome does not accrue past the program, there is no need to calculate drop off.

Calculating Impact	Calculating Social Return					
Quantity times financial proxy, less deadweight, displacement and attribution	Discount rate = 10%					
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
\$53,280,019	\$53,280,019	\$-	\$-	\$-	\$-	\$-

⁹³ Corporation for National & Community Service. *Volunteering and civic engagement in Illinois*. Available at <http://www.volunteeringinamerica.gov/IL>. Reflects 2013.

⁹⁴ Urban Institute. *National Center for Charitable Statistics*. Available at <http://nccsweb.urban.org/tablewiz/tw.php>

⁹⁵ See Appendix A for details on the field survey.

SOCIETY: Reduced Corrections System Involvement—Youth Avoid Interactions with Law Enforcement, Courts, and Corrections System

By keeping youth off the streets during after school and/or weekend hours when youth criminal activity and youth victimization are most likely to occur, and by providing a space to connect with positive role models and influences, youth development programs decrease the likelihood that kids come into contact with the corrections system.

Quantity: How much change was there?	459,990 youth avoid interactions with law enforcement, courts, and corrections system	From the youth development field survey, we know that programs serve an estimated 1,201,754 Illinois youth. ⁹⁶ Since this is a benefit most likely to accrue to slightly older youth, we multiply youth served by 51%, the share of all Illinois youth who are ages 12 to 17. ⁹⁷ In an experimental study of a youth program, 75% of the treatment group was never arrested or charged with a crime. ⁹⁸ $(1,201,754 * 51%) * 75% = 459,990$ youth avoid interactions with law enforcement, courts, and corrections system
Duration: How many years does it last after end of program? (maximum of 5 years)	0 years	While there is likely some residual effect of youth programs on the likelihood of being involved in the corrections system, it's unclear what that effect is, so to be conservative, we say that the systems avoidance benefit of youth programs only accrues while youth are in the program.
Outcomes Start: Does it start during the program or after?	During	The benefit begins and ends accruing during the program period.
Financial Proxy Value: What is the value of the change?	\$38,194 in avoided total costs per criminal offense	Take total (tangible plus intangible) per-offense cost for different crimes updated to 2013 dollars ⁹⁹ and weight each by the share of total crime each type represents, ¹⁰⁰ then add to arrive at the average per-offense cost of one criminal offense. Murder = \$9,719,470 * 0.2% + Rape/Sexual Assault = \$260,519 * 1.1% + Aggravated Assault = \$115,795 * 7.6% + Robbery = \$45,779 * 5.1% + Arson = \$22,833 * 1.0% + Motor Vehicle Theft = \$11,655 * 6.8% Household Burglary = \$6,992 * 18.2% Larceny/Theft = \$3,822 * 60.0% = \$38,194
Discounting	71%	In an experimental study of a youth program, 71% of the control group was never arrested or charged with a crime. ¹⁰¹

⁹⁶ See Appendix A for details on the field survey.

⁹⁷ U.S. Census Bureau's 2012 American Community Survey 1-year estimates program.

⁹⁸ Schirm, A., Rodriguez-Planas, N., Maxfield, M., & Tuttle, C. (2003, August). *The Quantum Opportunity Program Demonstration: Short-term impacts*. Washington, DC: Mathematica Policy Research, Inc.

⁹⁹ McCollister, K.E., French, M.T., & Fang, H. (2010, April). The cost of crime to society: New crime-specific estimates for policy and program evaluation. *Drug and Alcohol Dependence*, 108(1-2), 98-109. Available at <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2835847/>. 2008 prices inflated to 2013 dollars using the U.S. Department of Labor, Bureau of Labor Statistics' *CPI Detailed Report Data for November 2014*, available at <http://www.bls.gov/cpi/cpid1411.pdf>. 2008 to 2013 inflation factor is 1.0820.

¹⁰⁰ Illinois State Police. (2012). *Index crime offense & crime rate data*. Available at http://www.isp.state.il.us/docs/cii/cii12/cii12_SectionI_Pg11_to_188.pdf

Impact: Deadweight		
Discounting Impact: Attribution	20% of this outcome can be attributed to other program contributions aside from cash revenue.	<p>There are two other potential major “investments” into youth development programs that can take some of the credit for producing this outcome: volunteers and in-kind donations. The total value of volunteer hours in Illinois is \$7.2 billion.¹⁰² The entire Illinois nonprofit sector has a combined revenue of \$73 billion¹⁰³ and the youth development programs included in this analysis have a total revenue of \$302 million,¹⁰⁴ which is 0.41% of the total nonprofit revenue in the state. Multiply the \$7.2 billion of volunteer time value by 0.41% to estimate the share of the volunteer time value that belongs to the youth development field. Divide that figure by the \$302 million in youth development field revenue to arrive at 9.8%, which is how much the value of volunteer time represents of the total youth development revenue.</p> <p>$(\\$7,200,000,000 * (\\$301,787,431 / \\$73,312,774,643)) / \\$301,787,431 = 9.8\%$</p> <p>There are no good data sources to understand the total value of in-kind donations to programs in the Illinois youth development field. In light of this, we estimated the in-kind donation value to be equal to that of the value of volunteer time for youth development programs, and so double the 9.8% and round to a 20% attribution discounting rate.</p>
Discounting Impact: Drop-off	0%	Since this outcome does not accrue past the program, there is no need to calculate drop off.

Calculating Impact	Calculating Social Return					
Quantity times financial proxy, less deadweight, displacement and attribution	Discount rate = 10%					
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
\$4,075,963,852	\$4,075,963,852	\$-	\$-	\$-	\$-	\$-

¹⁰¹ Schirm, A., Rodriguez-Planas, N., Maxfield, M., & Tuttle, C. (2003, August). *The Quantum Opportunity Program Demonstration: Short-term impacts*. Washington, DC: Mathematica Policy Research, Inc.

¹⁰² Corporation for National & Community Service. *Volunteering and civic engagement in Illinois*. Available at <http://www.volunteeringinamerica.gov/IL>. Reflects 2013.

¹⁰³ Urban Institute. *National Center for Charitable Statistics*. Available at <http://nccsweb.urban.org/tablewiz/tw.php>

¹⁰⁴ See Appendix A for details on the field survey.

SOCIETY: Improved Health—Youth Avoid Teen Parenthood

Youth development programs place a heavy emphasis on making healthy life decisions and many explicitly teach safe sex.

Quantity: How much change was there?	517,378 youth avoid teen parenthood	From the youth development field survey, we know that programs serve an estimated 1,201,754 Illinois youth. ¹⁰⁵ Since this is a benefit most likely to accrue to slightly older youth, we multiply youth served by 51%, the share of all Illinois youth who are ages 12 to 17. ¹⁰⁶ In an experimental study of a youth program, 90% of the treatment group did not get pregnant or get someone else pregnant. ¹⁰⁷ Among those who do get pregnant, the Illinois teen abortion rate is 32%. ¹⁰⁸ $((1,201,754 * 51%) * 90%) - (((1,201,754 * 51%)*10%)*32%) = 517,378 \text{ youth avoid teen parenthood}$
Duration: How many years does it last after end of program? (maximum of 5 years)	1 year	While there is likely some residual effect of youth programs on the likelihood of getting pregnant, it's unclear what that effect is. So to be conservative, but also acknowledge that if youth don't get pregnant while in the program they won't have a child for at least 9 months if they get pregnant immediately after, we say that the benefit extends only 1 year post-program
Outcomes Start: Does it start during the program or after?	During	The benefit begins during the program period.
Financial Proxy Value: What is the value of the change?	\$31,004 in avoided public costs per instance of teen childbearing	The total public cost of teen childbearing in Illinois in 2010 dollars is \$434,000,000, ¹⁰⁹ divided by the 14,955 Illinois teen births in 2010, ¹¹⁰ updated to 2013 dollars.
Discounting Impact: Deadweight	83%	In an experimental study of a youth program, 83% of the control group did not get pregnant or get someone else pregnant. ¹¹¹
Discounting Impact: Attribution	20% of this outcome can be	There are two other potential major "investments" into youth development programs that can take some of the credit for producing this outcome: volunteers and in-kind donations. The total value of volunteer hours in Illinois is \$7.2 billion. ¹¹² The

¹⁰⁵ See Appendix A for details on the field survey.

¹⁰⁶ U.S. Census Bureau's 2012 American Community Survey 1-year estimates program.

¹⁰⁷ Philliber, S., Williams Kaye, J., Herrling, S., & West, E. (2002). Preventing pregnancy and improving health care access among teenagers: An evaluation of the Children's Aid Society–Carrera Program. *Perspectives on Sexual and Reproductive Health*, 35(5):244-251.

¹⁰⁸ Kost, K., & Henshaw, S. (2014). *U.S. teenage pregnancy, births and abortions, 2010: National and state trends by age, race and ethnicity*. New York: Guttmacher Institute. Available at <http://www.guttmacher.org/pubs/USTPtrends10.pdf>.

¹⁰⁹ The National Campaign to Prevent Teen and Unplanned Pregnancy. (2014, April). *Counting it up: The public costs of teen childbearing in Illinois in 2010*. Washington, DC: Authors. Available at <http://thenationalcampaign.org/sites/default/files/resource-primary-download/fact-sheet-illinois.pdf>. 2010 prices inflated to 2013 dollars using the U.S. Department of Labor, Bureau of Labor Statistics' *CPI Detailed Report Data for November 2014*, available at <http://www.bls.gov/cpi/cpid1411.pdf>. 2010 to 2013 inflation factor is 1.0683.

¹¹⁰ Illinois Department of Public Health. *Births to Illinois teens, 2010*. Available at <http://www.idph.state.il.us/health/teen/teen0910.htm>

¹¹¹ Philliber, S., Williams Kaye, J., Herrling, S., & West, E. (2002). Preventing pregnancy and improving health care access among teenagers: An evaluation of the Children's Aid Society–Carrera Program. *Perspectives on Sexual and Reproductive Health*, 35(5):244-251.

¹¹² Corporation for National & Community Service. *Volunteering and civic engagement in Illinois*. Available at <http://www.volunteeringinamerica.gov/IL>. Reflects 2013.

	<p>attributed to other program contributions aside from cash revenue.</p>	<p>entire Illinois nonprofit sector has a combined revenue of \$73 billion¹¹³ and the youth development programs included in this analysis have a total revenue of \$302 million,¹¹⁴ which is 0.41% of the total nonprofit revenue in the state. Multiply the \$7.2 billion of volunteer time value by 0.41% to estimate the share of the volunteer time value that belongs to the youth development field. Divide that figure by the \$302 million in youth development field revenue to arrive at 9.8%, which is how much the value of volunteer time represents of the total youth development revenue.</p> <p>$(\\$7,200,000,000 * (\\$301,787,431 / \\$73,312,774,643)) / \\$301,787,431 = 9.8\%$</p> <p>There are no good data sources to understand the total value of in-kind donations to programs in the Illinois youth development field. In light of this, we estimated the in-kind donation value to be equal to that of the value of volunteer time for youth development programs, and so double the 9.8% and round to a 20% attribution discounting rate.</p>
Discounting Impact: Drop-off	0%	Since this outcome only accrues in the year immediately after the program ends, there is no need to calculate drop off.

Calculating Impact	Calculating Social Return					
Quantity times financial proxy, less deadweight, displacement and attribution	Discount rate = 10%					
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
	\$2,181,512,688	\$2,181,512,688	\$-	\$-	\$-	\$-

¹¹³ Urban Institute. *National Center for Charitable Statistics*. Available at <http://nccsweb.urban.org/tablewiz/tw.php>

¹¹⁴ See Appendix A for details on the field survey.

SOCIETY: Improved Health—Youth Receive Reproductive/Sexual Health Care

Youth development programs place a heavy emphasis on making healthy life decisions and many explicitly encourage preventive health care and seeking treatment.

Quantity: How much change was there?	496,789 youth receive reproductive/sexual health care	From the youth development field survey, we know that programs serve an estimated 1,201,754 Illinois youth. ¹¹⁵ Since this is a benefit most likely to accrue to slightly older youth, we multiply youth served by 51%, the share of all Illinois youth who are ages 12 to 17. ¹¹⁶ In an experimental study of a youth program, 81% of the treatment group made a reproductive health visit in the last year at 3 year follow-up. ¹¹⁷ (1,201,754 * 51%) * 81% = 496,789 youth receive reproductive/sexual health care
Duration: How many years does it last after end of program? (maximum of 5 years)	1 year	While there is likely some residual effect of youth programs on the likelihood seeking health care, it's unclear what that effect is. So to be conservative, but also acknowledge that there is likely some lingering effect, we say that the benefit extends only 1 year post-program.
Outcomes Start: Does it start during the program or after?	During	The benefit begins during the program period.
Financial Proxy Value: What is the value of the change?	\$634, the direct and indirect cost of one untreated sexually transmitted disease case	We use formulas developed to estimate the direct and indirect societal costs averted by treating STDs and arrive at a total of \$15,762,873 in averted costs from treating one year's worth of Illinois youth STDs (in 2013 dollars). ¹¹⁸ We divide that cost by the number of STD cases among Illinois youth ages 10 to 19, of which there were 24,853. ¹¹⁹ Direct benefits include sequelae (condition that results from previous disease such as pelvic inflammatory disease resulting from an STD) costs averted by treatment and treatment and sequelae costs averted by reducing transmission. Indirect costs reflect lost productivity from the disease. \$15,762,873 / 24,853 = \$634
Discounting Impact: Deadweight	65%	In an experimental study of a youth program, 65% of the control group made a reproductive health visit in the last year at 3 year follow-up. ¹²⁰

¹¹⁵ See Appendix A for details on the field survey.

¹¹⁶ U.S. Census Bureau's 2012 American Community Survey 1-year estimates program.

¹¹⁷ Philliber, S., Williams Kaye, J., Herrling, S., & West, E. (2002). Preventing pregnancy and improving health care access among teenagers: An evaluation of the Children's Aid Society–Carrera Program. *Perspectives on Sexual and Reproductive Health*, 35(5):244-251.

¹¹⁸ Chesson, H.W., Collins, D., & Koski, K. (2008). Formulas for estimating the costs averted by sexually transmitted infection (STI) prevention programs in the United States. *Cost Effectiveness and Resource Allocation*, 6: 10. Available at <http://www.resource-allocation.com/content/6/1/10>

¹¹⁹ Illinois Department of Public Health. (2011, December). *Illinois: HIV/AIDS/STD monthly surveillance update*. Available at http://www.idph.state.il.us/aids/Surv_Report_1211.pdf. 2006 prices inflated to 2013 dollars using the U.S. Department of Labor, Bureau of Labor Statistics' *CPI Detailed Report Data for November 2014*, available at <http://www.bls.gov/cpi/cpid1411.pdf>. 2006 to 2013 inflation factor is 1.1555.

¹²⁰ Philliber, S., Williams Kaye, J., Herrling, S., & West, E. (2002). Preventing pregnancy and improving health care access among teenagers: An evaluation of the Children's Aid Society–Carrera Program. *Perspectives on Sexual and Reproductive Health*, 35(5):244-251.

Discounting Impact: Attribution	20% of this outcome can be attributed to other program contributions aside from cash revenue.	<p>There are two other potential major “investments” into youth development programs that can take some of the credit for producing this outcome: volunteers and in-kind donations. The total value of volunteer hours in Illinois is \$7.2 billion.¹²¹ The entire Illinois nonprofit sector has a combined revenue of \$73 billion¹²² and the youth development programs included in this analysis have a total revenue of \$302 million,¹²³ which is 0.41% of the total nonprofit revenue in the state. Multiply the \$7.2 billion of volunteer time value by 0.41% to estimate the share of the volunteer time value that belongs to the youth development field. Divide that figure by the \$302 million in youth development field revenue to arrive at 9.8%, which is how much the value of volunteer time represents of the total youth development revenue.</p> <p>$(\\$7,200,000,000 * (\\$301,787,431 / \\$73,312,774,643)) / \\$301,787,431 = 9.8\%$</p> <p>There are no good data sources to understand the total value of in-kind donations to programs in the Illinois youth development field. In light of this, we estimated the in-kind donation value to be equal to that of the value of volunteer time for youth development programs, and so double the 9.8% and round to a 20% attribution discounting rate.</p>
Discounting Impact: Drop-off	0%	Since this outcome only accrues in the year immediately after the program ends, there is no need to calculate drop off.

Calculating Impact	Calculating Social Return					
Quantity times financial proxy, less deadweight, displacement and attribution	Discount rate = 10%					
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
	\$88,224,051	\$88,224,051	\$-	\$-	\$-	\$-

¹²¹ Corporation for National & Community Service. *Volunteering and civic engagement in Illinois*. Available at <http://www.volunteeringinamerica.gov/IL>. Reflects 2013.

¹²² Urban Institute. *National Center for Charitable Statistics*. Available at <http://nccsweb.urban.org/tablewiz/tw.php>

¹²³ See Appendix A for details on the field survey.

SOCIETY: Improved Health—Youth Avoid Tobacco, Drug, and Alcohol Use

Youth development programs place a heavy emphasis on making healthy life decisions and many explicitly teach substance avoidance.

Quantity: How much change was there?	558,122 youth avoid tobacco, drug, and alcohol use	From the youth development field survey, we know that programs serve an estimated 1,201,754 Illinois youth. ¹²⁴ Since this is a benefit most likely to accrue to slightly older youth, we multiply youth served by 51%, the share of all Illinois youth who are ages 12 to 17. ¹²⁵ In an experimental study of a youth program, 91% of the treatment group did not start drinking alcohol over the program period. ¹²⁶ (1,201,754 * 51%) * 91% = 558,122 youth avoid tobacco, drug, and alcohol use
Duration: How many years does it last after end of program? (maximum of 5 years)	1 year	While there is likely some residual effect of youth programs on the likelihood of avoiding substance use, it's unclear what that effect is. So to be conservative, but also acknowledge that there is likely some lingering effect, we say that the benefit extends only 1 year post-program.
Outcomes Start: Does it start during the program or after?	During	The benefit begins during the program period.
Financial Proxy Value: What is the value of the change?	\$13,274, the cost savings associated with one person not using substances	The per-person cost savings associated with not using substances, inflated to 2013 dollars. ¹²⁷
Discounting Impact: Deadweight	84%	In an experimental study of a youth program, 84% of the treatment group did not start drinking alcohol over the program period. ¹²⁸
Discounting Impact: Attribution	20% of this outcome can be attributed to other program contributions	There are two other potential major “investments” into youth development programs that can take some of the credit for producing this outcome: volunteers and in-kind donations. The total value of volunteer hours in Illinois is \$7.2 billion. ¹²⁹ The entire Illinois nonprofit sector has a combined revenue of \$73 billion ¹³⁰ and the youth development programs included in this analysis have a total revenue of \$302 million, ¹³¹ which is 0.41% of the total nonprofit revenue in the state. Multiply the \$7.2 billion of volunteer time value by 0.41% to estimate the share of the volunteer time value that belongs to the youth

¹²⁴ See Appendix A for details on the field survey.

¹²⁵ U.S. Census Bureau's 2012 American Community Survey 1-year estimates program.

¹²⁶ Baldwin Grossman, J., Price, M., Fellerath, V., et. al. (2002, June). *Multiple choices after school: Findings from the Extended-Service Schools Initiative*. Philadelphia: Public/Private Ventures.

¹²⁷ Ettner S., et. al. (2005). Benefit-cost in the California Treatment Outcome Project: Does substance abuse treatment 'pay for itself,'? *Health Services Research*, 41(2), 613. Available at <http://www.ncbi.nlm.nih.gov/pubmed/16430607>. 2006 prices inflated to 2013 dollars using the U.S. Department of Labor, Bureau of Labor Statistics' *CPI Detailed Report Data for November 2014*, available at <http://www.bls.gov/cpi/cpid1411.pdf>. 2006 to 2013 inflation factor is 1.1555. Cost savings reflects, primarily, reduced costs of crime and increased productivity.

¹²⁸ Baldwin Grossman, J., Price, M., Fellerath, V., et. al. (2002, June). *Multiple choices after school: Findings from the Extended-Service Schools Initiative*. Philadelphia: Public/Private Ventures.

¹²⁹ Corporation for National & Community Service. *Volunteering and civic engagement in Illinois*. Available at <http://www.volunteeringinamerica.gov/IL>. Reflects 2013.

¹³⁰ Urban Institute. *National Center for Charitable Statistics*. Available at <http://nccsweb.urban.org/tablewiz/tw.php>

¹³¹ See Appendix A for details on the field survey.

	aside from cash revenue.	<p>development field. Divide that figure by the \$302 million in youth development field revenue to arrive at 9.8%, which is how much the value of volunteer time represents of the total youth development revenue.</p> <p>$(\\$7,200,000,000 * (\\$301,787,431 / \\$73,312,774,643)) / \\$301,787,431 = 9.8\%$</p> <p>There are no good data sources to understand the total value of in-kind donations to programs in the Illinois youth development field. In light of this, we estimated the in-kind donation value to be equal to that of the value of volunteer time for youth development programs, and so double the 9.8% and round to a 20% attribution discounting rate.</p>
Discounting Impact: Drop-off	0%	Since this outcome only accrues in the year immediately after the program ends, there is no need to calculate drop off.

Calculating Impact	Calculating Social Return					
Quantity times financial proxy, less deadweight, displacement and attribution	Discount rate = 10%					
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
\$948,266,913	\$948,266,913	\$948,266,913	\$-	\$-	\$-	\$-

SOCIETY: Increased Workforce Engagement—People are Employed in Nonprofit Youth Development Sector and Pay Taxes

Youth development programs employ thousands of Illinoisans who pay a variety of taxes, from federal and state payroll taxes to property and sales taxes.

Quantity: How much change was there?	4,613 full-time equivalent jobs in the youth development field	From the youth development field survey, we know that youth development programs employ approximately 4,613 full-time equivalents. ¹³²
Duration: How many years does it last after end of program? (maximum of 5 years)	0 years	Employment in the field lasts for the duration of the program year.
Outcomes Start: Does it start during the program or after?	During	People are employed during the program.
Financial Proxy Value: What is the value of the change?	\$13,065, estimated total taxes paid by one nonprofit worker	We inflate to 2013 dollars the median wages and taxes paid by educational attainment, ¹³³ and also inflate to 2013 dollars the median annual earnings of the nonprofit workforce by educational attainment. ¹³⁴ We determine if the median nonprofit earnings by educational level are higher or lower than the median earnings of the workforce overall and by how much, which results in a percentage. We then multiply that percentage by the average taxes paid by education level to get the estimated amount of taxes paid by education level for Illinois nonprofit workers. As a final step, we derive a weighted annual taxes paid figure using educational attainment data on the nonprofit workforce. ¹³⁵
Discounting Impact: Deadweight	59%	59% of Illinoisans age 16 and over are employed, so we assume that if their youth development field job weren't available, 59% of employees would find work elsewhere. ¹³⁶
Discounting Impact: Attribution	20% of this outcome can be attributed to	There are two other potential major "investments" into youth development programs that can take some of the credit for producing this outcome: volunteers and in-kind donations. The total value of volunteer hours in Illinois is \$7.2 billion. ¹³⁷ The entire Illinois nonprofit sector has a combined revenue of \$73 billion ¹³⁸ and the youth development programs included in

¹³² See Appendix A for details on the field survey.

¹³³ CollegeBoard. *Trends in higher education: Median earnings and tax payments by education level, 2008*. Available at <http://trends.collegeboard.org/education-pays/figures-tables/median-earnings-and-tax-payments-education-level-2008>. 2008 prices inflated to 2013 dollars using the U.S. Department of Labor, Bureau of Labor Statistics' *CPI Detailed Report Data for November 2014*, available at <http://www.bls.gov/cpi/cpid1411.pdf>. 2008 to 2013 inflation factor is 1.0820.

¹³⁴ Building a Stronger Illinois. *Nonprofit employees*. Available at <http://buildingstrongeril.com/statewide-profile/nonprofit-employees/#.VJ2lrF4AI>. 2011 prices inflated to 2013 dollars using the U.S. Department of Labor, Bureau of Labor Statistics' *CPI Detailed Report Data for November 2014*, available at <http://www.bls.gov/cpi/cpid1411.pdf>. 2011 to 2013 inflation factor is 1.0356.

¹³⁵ Building a Stronger Illinois. *Nonprofit employees*. Available at <http://buildingstrongeril.com/statewide-profile/nonprofit-employees/#.VJ2lrF4AI>. 2011 prices inflated to 2013 dollars using the U.S. Department of Labor, Bureau of Labor Statistics' *CPI Detailed Report Data for November 2014*, available at <http://www.bls.gov/cpi/cpid1411.pdf>. 2011 to 2013 inflation factor is 1.0356.

¹³⁶ U.S. Census Bureau's 2012 American Community Survey 1 year estimates program.

¹³⁷ Corporation for National & Community Service. *Volunteering and civic engagement in Illinois*. Available at <http://www.volunteeringinamerica.gov/IL>. Reflects 2013.

¹³⁸ Urban Institute. *National Center for Charitable Statistics*. Available at <http://nccsweb.urban.org/tablewiz/tw.php>

	other program contributions aside from cash revenue.	<p>this analysis have a total revenue of \$302 million,¹³⁹ which is 0.41% of the total nonprofit revenue in the state. Multiply the \$7.2 billion of volunteer time value by 0.41% to estimate the share of the volunteer time value that belongs to the youth development field. Divide that figure by the \$302 million in youth development field revenue to arrive at 9.8%, which is how much the value of volunteer time represents of the total youth development revenue.</p> <p>$(\\$7,200,000,000 * (\\$301,787,431 / \\$73,312,774,643)) / \\$301,787,431 = 9.8\%$</p> <p>There are no good data sources to understand the total value of in-kind donations to programs in the Illinois youth development field. In light of this, we estimated the in-kind donation value to be equal to that of the value of volunteer time for youth development programs, and so double the 9.8% and round to a 20% attribution discounting rate.</p>
Discounting Impact: Drop-off	0%	Since this outcome does not accrue past the program, there is no need to calculate drop off.

Calculating Impact	Calculating Social Return					
Quantity times financial proxy, less deadweight, displacement and attribution	Discount rate = 10%					
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
	\$19,625,055	\$-	\$-	\$-	\$-	\$-

¹³⁹ See Appendix A for details on the field survey.

SOCIETY: Increased Workforce Engagement—Youth are Working and Pay Taxes

Many youth development programs run youth employment initiatives or offer paid work experience for participants. Those youth then pay payroll taxes.

Quantity: How much change was there?	57,012 youth working in youth development program sponsored/run jobs	From the youth development field survey, we know that an estimated 57,012 youth work in paid jobs in a year through an initiative of their youth development program. ¹⁴⁰
Duration: How many years does it last after end of program? (maximum of 5 years)	0 years	Once kids are no longer in the youth development program, they cease to have access to that program-sponsored job.
Outcomes Start: Does it start during the program or after?	During	This benefit of paid work begins and ends during the program period.
Financial Proxy Value: What is the value of the change?	\$197, income tax revenue generated	Youth working jobs provided through a youth development program earn an average of \$1,325 annually in those jobs. ¹⁴¹ Illinois's personal income tax rate in 2013 was 5% ¹⁴² and the federal personal income tax for a single filer making \$1,325 was \$131. ¹⁴³ $(\$1,325 * 5\%) + \$131 = \$197$
Discounting Impact: Deadweight	26%	The employment rate for 16 to 19 year olds in Illinois is 26%, ¹⁴⁴ so we assume that 26% of these youth would be employed elsewhere if they were not employed through the youth development program.
Discounting Impact: Attribution	20% of this outcome can be attributed to other program contributions aside from cash revenue.	There are two other potential major "investments" into youth development programs that can take some of the credit for producing this outcome: volunteers and in-kind donations. The total value of volunteer hours in Illinois is \$7.2 billion. ¹⁴⁵ The entire Illinois nonprofit sector has a combined revenue of \$73 billion ¹⁴⁶ and the youth development programs included in this analysis have a total revenue of \$302 million, ¹⁴⁷ which is 0.41% of the total nonprofit revenue in the state. Multiply the \$7.2 billion of volunteer time value by 0.41% to estimate the share of the volunteer time value that belongs to the youth development field. Divide that figure by the \$302 million in youth development field revenue to arrive at 9.8%, which is how

¹⁴⁰ See Appendix A for details on the field survey.

¹⁴¹ See Appendix D, YOUTH AND FAMILIES: Increased Economic Security—Youth Are Working.

¹⁴² Illinois Department of Revenue. *Tax rate database: Individual income tax rates for prior years*. Available at <http://tax.illinois.gov/TaxRates/IndividualPriorYears.htm>

¹⁴³ Internal Revenue Service. *2013 tax table*. Available at <http://www.irs.gov/pub/irs-pdf/i1040tt.pdf>

¹⁴⁴ U.S. Census Bureau's 2012 American Community Survey 1-year estimates program.

¹⁴⁵ Corporation for National & Community Service. *Volunteering and civic engagement in Illinois*. Available at <http://www.volunteeringinamerica.gov/IL>. Reflects 2013.

¹⁴⁶ Urban Institute. *National Center for Charitable Statistics*. Available at <http://nccsweb.urban.org/tablewiz/tw.php>

¹⁴⁷ See Appendix A for details on the field survey.

		<p>much the value of volunteer time represents of the total youth development revenue.</p> $(\$7,200,000,000 * (\$301,787,431 / \$73,312,774,643)) / \$301,787,431 = 9.8\%$ <p>There are no good data sources to understand the total value of in-kind donations to programs in the Illinois youth development field. In light of this, we estimated the in-kind donation value to be equal to that of the value of volunteer time for youth development programs, and so double the 9.8% and round to a 20% attribution discounting rate.</p>
Discounting Impact: Drop-off	0%	Since this outcome does not accrue past the program, there is no need to calculate drop off.

Calculating Impact	Calculating Social Return					
Quantity times financial proxy, less deadweight, displacement and attribution	Discount rate = 10%					
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
	\$6,630,127	\$-	\$-	\$-	\$-	\$-

SOCIETY: Increased Workforce Engagement—Youth Graduate and Pay Higher Taxes

Youth development programs serve to increase participants' economic security when, with the help of the youth development program, the participants graduate from high school, thereby increasing their potential earning power. Society benefits by commanding higher tax revenue from the higher wages earned by the higher educated youth.

Quantity: How much change was there?	87,277 youth graduate	From the youth development field survey, we learned that programs serve an estimated 1,201,754 Illinois youth. ¹⁴⁸ Take two experimental studies of youth development programs (one of a more rural program, another of more urban program) and average the graduation rates for the treatment group in both experiments, resulting in 87%. ¹⁴⁹ Determine the share of all children ages 6 to 17 in Illinois who are age 17, closest to graduation age, which is 8%. ¹⁵⁰ $(1,201,754 * 8%) * 87% = 87,277$ youth graduating
Duration: How many years does it last after end of program? (maximum of 5 years)	5 years	The earning power of having a high school diploma over not having one lasts beyond the year the diploma is earned.
Outcomes Start: Does it start during the program or after?	After	Some youth likely graduate high school while still in their youth development program, but many will not.
Financial Proxy Value: What is the value of the change?	\$2,597, the difference between total taxes paid by a high school graduate and a non-graduate	The average total taxes paid by a high school graduate is \$7,682 and by a non-high school graduate is \$5,085, inflated to 2013 dollars, for a difference of \$2,597. ¹⁵¹
Discounting Impact: Deadweight	81% of youth would have graduated even	Two experimental studies of youth development programs (one of a more rural program, another of more urban program) have graduate rates for control groups that did not participate in the youth development program, and averaging them results in a rate of 81%. ¹⁵²

¹⁴⁸ See Appendix A for details on the field survey.

¹⁴⁹ Piescher, K., Hong, S., Blyth, D., & Nippolt, P. (2014). *Academic achievement of youth in the 4-H program*. (Minn-LinK Brief No. 19). Available at http://casocw.umn.edu/portfolio_category/minn-link/: 96.3% of the treatment group graduated. Shirm, A., Stuart, E., & McKie, A. (2006, July). *The Quantum Opportunity Program Demonstration: Final impacts*. Washington, DC: Mathematica Policy Research, Inc.: 78% of the treatment group received their high school diploma or GED.

¹⁵⁰ U.S. Census Bureau's 2012 American Community Survey 1-year estimates program.

¹⁵¹ CollegeBoard. *Trends in higher education: Median earnings and tax payments by education level, 2008*. Available at <http://trends.collegeboard.org/education-pays/figures-tables/median-earnings-and-tax-payments-education-level-2008>. 2008 prices inflated to 2013 dollars using the U.S. Department of Labor, Bureau of Labor Statistics' *CPI Detailed Report Data for November 2014*, available at <http://www.bls.gov/cpi/cpid1411.pdf>. 2008 to 2013 inflation factor is 1.0820.

¹⁵² Piescher, K., Hong, S., Blyth, D., & Nippolt, P. (2014). *Academic achievement of youth in the 4-H program*. (Minn-LinK Brief No. 19). Available at http://casocw.umn.edu/portfolio_category/minn-link/: 85.5% of the control group graduated. Shirm, A., Stuart, E., & McKie, A. (2006, July). *The Quantum Opportunity Program Demonstration: Final impacts*. Washington, DC: Mathematica Policy Research, Inc.: 75% of the control group received their high school diploma or GED.

	without the support of a youth development program.	
Discounting Impact: Attribution	20% of this outcome can be attributed to other program contributions aside from cash revenue.	<p>There are two other potential major “investments” into youth development programs that can take some of the credit for producing this outcome: volunteers and in-kind donations. The total value of volunteer hours in Illinois is \$7.2 billion.¹⁵³ The entire Illinois nonprofit sector has a combined revenue of \$73 billion¹⁵⁴ and the youth development programs included in this analysis have a total revenue of \$302 million,¹⁵⁵ which is 0.41% of the total nonprofit revenue in the state. Multiply the \$7.2 billion of volunteer time value by 0.41% to estimate the share of the volunteer time value that belongs to the youth development field. Divide that figure by the \$302 million in youth development field revenue to arrive at 9.8%, which is how much the value of volunteer time represents of the total youth development revenue.</p> $(\$7,200,000,000 * (\$301,787,431 / \$73,312,774,643)) / \$301,787,431 = 9.8\%$ <p>There are no good data sources to understand the total value of in-kind donations to programs in the Illinois youth development field. In light of this, we estimated the in-kind donation value to be equal to that of the value of volunteer time for youth development programs, and so double the 9.8% and round to a 20% attribution discounting rate.</p>
Discounting Impact: Drop-off	0%	While the earning power of a high school diploma has dropped up over the course of the last several decades, it is unlikely that there would be noticeable depreciation in a 5-year time period.

Calculating Impact	Calculating Social Return					
Quantity times financial proxy, less deadweight, displacement and attribution	Discount rate = 10%					
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
\$35,356,001	\$-	\$35,356,001	\$35,356,001	\$35,356,001	\$35,356,001	\$35,356,001

¹⁵³ Corporation for National & Community Service. *Volunteering and civic engagement in Illinois*. Available at <http://www.volunteeringinamerica.gov/IL>. Reflects 2013.

¹⁵⁴ Urban Institute. *National Center for Charitable Statistics*. Available at <http://nccsweb.urban.org/tablewiz/tw.php>

¹⁵⁵ See Appendix A for details on the field survey.

SOCIETY: Improved School Systems—Students Achieve Academically

Youth development programs often provide help with homework or other academic support. Even when they don't have an explicit focus on academics, the supportive, positive orientation of the program can promote positive attitudes toward school and learning.

Quantity: How much change was there?	85,494 students have improved grades	From the youth development field survey, we know that programs serve an estimated 1,201,754 Illinois youth. ¹⁵⁶ Multiply that by the share of youth who are low income, 37%, ¹⁵⁷ because society is most likely to bear the remedial costs for low-income students (higher-income families are more likely to get private tutoring). In an experimental study of a youth program, 19% of the treatment group reported that the program improved their grades. ¹⁵⁸ (1,201,754 * 37%) * 19% = 85,494 low-income students have improved grades
Duration: How many years does it last after end of program? (maximum of 5 years)	1 year	While there is likely some residual effect of youth programs on the likelihood academic achievement, it's unclear what that effect is. So to be conservative, but also acknowledge that there is likely some lingering effect, we say that the benefit extends only 1 year post-program.
Outcomes Start: Does it start during the program or after?	During	The benefit begins during the program period.
Financial Proxy Value: What is the value of the change?	\$1,321, value of avoided annual per pupil expenditure on tutoring	The No Child Left Behind-mandated annual per pupil amount for the Supplemental Educational Services program in Illinois is \$1,321. ¹⁵⁹
Discounting Impact: Deadweight	7%	In an experimental study of a youth program, 7% of the control group reported improved grades. ¹⁶⁰
Discounting Impact: Attribution	20% of this outcome can be attributed to other program contributions aside from cash	There are two other potential major "investments" into youth development programs that can take some of the credit for producing this outcome: volunteers and in-kind donations. The total value of volunteer hours in Illinois is \$7.2 billion. ¹⁶¹ The entire Illinois nonprofit sector has a combined revenue of \$73 billion ¹⁶² and the youth development programs included in this analysis have a total revenue of \$302 million, ¹⁶³ which is 0.41% of the total nonprofit revenue in the state. Multiply the \$7.2 billion of volunteer time value by 0.41% to estimate the share of the volunteer time value that belongs to the youth

¹⁵⁶ See Appendix A for details on the field survey.

¹⁵⁷ U.S. Census Bureau's 2012 American Community Survey 1-year estimates program. Low income refers to annual family incomes below 200% of the federal poverty threshold.

¹⁵⁸ Schirm, A., Rodriguez-Planas, N., Maxfield, M., & Tuttle, C. (2003, August). *The Quantum Opportunity Program Demonstration: Short-term impacts*. Washington, DC: Mathematica Policy Research, Inc.

¹⁵⁹ Illinois State Board of Education. *Supplemental Educational Services*. Available at <http://www.isbe.net/ses/>. Calculated the weighted average (weighted by share of total formula count) of all Illinois school districts. In 2013 dollars.

¹⁶⁰ Schirm, A., Rodriguez-Planas, N., Maxfield, M., & Tuttle, C. (2003, August). *The Quantum Opportunity Program Demonstration: Short-term impacts*. Washington, DC: Mathematica Policy Research, Inc.

¹⁶¹ Corporation for National & Community Service. *Volunteering and civic engagement in Illinois*. Available at <http://www.volunteeringinamerica.gov/IL>. Reflects 2013.

¹⁶² Urban Institute. *National Center for Charitable Statistics*. Available at <http://nccsweb.urban.org/tablewiz/tw.php>

¹⁶³ See Appendix A for details on the field survey.

	revenue.	<p>development field. Divide that figure by the \$302 million in youth development field revenue to arrive at 9.8%, which is how much the value of volunteer time represents of the total youth development revenue.</p> <p>$(\\$7,200,000,000 * (\\$301,787,431 / \\$73,312,774,643)) / \\$301,787,431 = 9.8\%$</p> <p>There are no good data sources to understand the total value of in-kind donations to programs in the Illinois youth development field. In light of this, we estimated the in-kind donation value to be equal to that of the value of volunteer time for youth development programs, and so double the 9.8% and round to a 20% attribution discounting rate.</p>
Discounting Impact: Drop-off	0%	Since this outcome only accrues in the year immediately after the program ends, there is no need to calculate drop off.

Calculating Impact	Calculating Social Return					
Quantity times financial proxy, less deadweight, displacement and attribution	Discount rate = 10%					
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
	\$84,033,837	\$84,033,837	\$-	\$-	\$-	\$-

SOCIETY: Improved School Systems—Disciplinary Action Declines

Youth development programs often provide a supportive environment that encourages healthy relationships and peaceful problem solving. This can carry over into the school setting, leading to fewer disciplinary problems in the classroom.

Quantity: How much change was there?	793,157 students avoid disciplinary action	From the youth development field survey, we know that programs serve an estimated 1,201,754 Illinois youth. ¹⁶⁴ In an experimental study of a youth program, 66% of the treatment group was not expelled or suspended. ¹⁶⁵
Duration: How many years does it last after end of program? (maximum of 5 years)	1 year	While there is likely some residual effect of youth programs on the likelihood avoiding disciplinary action, it's unclear what that effect is. So to be conservative, but also acknowledge that there is likely some lingering effect, we say that the benefit extends only 1 year post-program.
Outcomes Start: Does it start during the program or after?	During	The benefit begins during the program period.
Financial Proxy Value: What is the value of the change?	\$206, value of per student cost of suspension	The value to society of students avoiding disciplinary action can be operationalized as the avoided per student cost of suspensions. In Illinois, school administrators are paid a median hourly wage of \$47.90. ¹⁶⁶ Each school suspension takes an average of 2 hours to process. ¹⁶⁷ In Illinois, each suspended student is suspended an average of 2.15 times. ¹⁶⁸ $\$47.90 * 2 * 2.15 = \206
Discounting Impact: Deadweight	62%	In an experimental study of a youth program, 62% of the control group was not expelled or suspended. ¹⁶⁹
Discounting Impact: Attribution	20% of this outcome can be attributed to other program contributions aside from cash revenue.	There are two other potential major “investments” into youth development programs that can take some of the credit for producing this outcome: volunteers and in-kind donations. The total value of volunteer hours in Illinois is \$7.2 billion. ¹⁷⁰ The entire Illinois nonprofit sector has a combined revenue of \$73 billion ¹⁷¹ and the youth development programs included in this analysis have a total revenue of \$302 million, ¹⁷² which is 0.41% of the total nonprofit revenue in the state. Multiply the \$7.2 billion of volunteer time value by 0.41% to estimate the share of the volunteer time value that belongs to the youth development field. Divide that figure by the \$302 million in youth development field revenue to arrive at 9.8%, which is how much the value of volunteer time represents of the total youth development revenue.

¹⁶⁴ See Appendix A for details on the field survey.

¹⁶⁵ Schirm, A., Rodriguez-Planas, N., Maxfield, M., & Tuttle, C. (2003, August). *The Quantum Opportunity Program Demonstration: Short-term impacts*. Washington, DC: Mathematica Policy Research, Inc.

¹⁶⁶ Bureau of Labor Statistics. *Occupational Employment Statistics*. Available at <http://www.bls.gov/oes/tables.htm>. 2013 data. Median annual wage of \$99,640 divided by 2,080 hours worked annually.

¹⁶⁷ Community Matters. *Suspension loss and cost calculator*. Available at <http://community-matters.org/programs-and-services/calculator>.

¹⁶⁸ Illinois State Board of Education. *Expulsions, suspensions, and truant by district*. Available at http://www.isbe.net/research/htmls/eoy_report.htm. Used 2012-13 data files on number of students and number of suspensions to calculate average number of suspensions per student.

¹⁶⁹ Schirm, A., Rodriguez-Planas, N., Maxfield, M., & Tuttle, C. (2003, August). *The Quantum Opportunity Program Demonstration: Short-term impacts*. Washington, DC: Mathematica Policy Research, Inc.

¹⁷⁰ Corporation for National & Community Service. *Volunteering and civic engagement in Illinois*. Available at <http://www.volunteeringinamerica.gov/IL>. Reflects 2013.

¹⁷¹ Urban Institute. *National Center for Charitable Statistics*. Available at <http://nccsweb.urban.org/tablewiz/tw.php>

¹⁷² See Appendix A for details on the field survey.

		$(\$7,200,000,000 * (\$301,787,431 / \$73,312,774,643)) / \$301,787,431 = 9.8\%$ <p>There are no good data sources to understand the total value of in-kind donations to programs in the Illinois youth development field. In light of this, we estimated the in-kind donation value to be equal to that of the value of volunteer time for youth development programs, and so double the 9.8% and round to a 20% attribution discounting rate.</p>
Discounting Impact: Drop-off	0%	Since this outcome only accrues in the year immediately after the program ends, there is no need to calculate drop off.

Calculating Impact	Calculating Social Return					
Quantity times financial proxy, less deadweight, displacement and attribution	Discount rate = 10%					
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
	\$49,556,731	\$49,556,731	\$-	\$-	\$-	\$-

SOCIETY: Improved School Systems—School Support Staff is Supplemented

Youth development programs operate both in community spaces and in schools. Many schools allow or invite youth development programs to run electives or other between class period activities and programs. In this way, nonprofit youth development staff supplement school support staff.

Quantity: How much change was there?	2,032 youth development staff working in schools	From the youth development field survey, we know that programs have 2,032 full-time equivalent staff working in Illinois schools. ¹⁷³
Duration: How many years does it last after end of program? (maximum of 5 years)	0 years	This benefit accrues only while the program is in operation.
Outcomes Start: Does it start during the program or after?	During	The benefit begins and ends accruing during the program period.
Financial Proxy Value: What is the value of the change?	\$61,740, the average salary of a school counselor	The value to society of youth development staff supplementing school staff can be operationalized as the mean annual salary of an Illinois educational, guidance, school, and vocational counselor. ¹⁷⁴
Discounting Impact: Deadweight	50%	It is unclear how many youth development staff are standing in for school staff, thereby relieving budgetary pressure, and how many are in addition to school staff. We split the difference of this uncertainty by saying that 50% of youth development staff in schools aren't standing in for someone in the budgetary sense.
Discounting Impact: Attribution	20% of this outcome can be attributed to other program contributions aside from cash revenue.	There are two other potential major "investments" into youth development programs that can take some of the credit for producing this outcome: volunteers and in-kind donations. The total value of volunteer hours in Illinois is \$7.2 billion. ¹⁷⁵ The entire Illinois nonprofit sector has a combined revenue of \$73 billion ¹⁷⁶ and the youth development programs included in this analysis have a total revenue of \$302 million, ¹⁷⁷ which is 0.41% of the total nonprofit revenue in the state. Multiply the \$7.2 billion of volunteer time value by 0.41% to estimate the share of the volunteer time value that belongs to the youth development field. Divide that figure by the \$302 million in youth development field revenue to arrive at 9.8%, which is how much the value of volunteer time represents of the total youth development revenue. $(\$7,200,000,000 * (\$301,787,431 / \$73,312,774,643)) / \$301,787,431 = 9.8\%$

¹⁷³ See Appendix A for details on the field survey.

¹⁷⁴ Bureau of Labor Statistics. *Occupational Employment Statistics*. Available at <http://www.bls.gov/oes/tables.htm>. 2013 data.

¹⁷⁵ Corporation for National & Community Service. *Volunteering and civic engagement in Illinois*. Available at <http://www.volunteeringinamerica.gov/IL>. Reflects 2013.

¹⁷⁶ Urban Institute. *National Center for Charitable Statistics*. Available at <http://nccsweb.urban.org/tablewiz/tw.php>

¹⁷⁷ See Appendix A for details on the field survey.

		There are no good data sources to understand the total value of in-kind donations to programs in the Illinois youth development field. In light of this, we estimated the in-kind donation value to be equal to that of the value of volunteer time for youth development programs, and so double the 9.8% and round to a 20% attribution discounting rate.
Discounting Impact: Drop-off	0%	Since this outcome does not accrue past the program, there is no need to calculate drop off.

Calculating Impact	Calculating Social Return					
Quantity times financial proxy, less deadweight, displacement and attribution	Discount rate = 10%					
	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
	\$50,170,733	\$-	\$-	\$-	\$-	\$-

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