

Social Return on Investment Project Summary and FAQs for:

Page Education Foundation

Ecotone Analytics Impact Analysis



Project Summary

Key Message

This analysis is a projected social return on investment for Page Education Foundation. For every \$1 spent on Page Scholars, there is a projected social return of \$5.52. This value is being realized through increased earnings for Scholars and children served, improved health for Scholars and children served, increased classroom support for community partners, and reduced onboarding cost and increased productivity for Accelerate partners.

- Projected benefits per Scholar: \$33,965
- Average cost per Scholar: \$6,150
- Projected net benefits generated (benefits minus costs): \$27,815

The largest outcome monetized was the increased lifetime earnings from increased college graduation for Page Scholars (\$24,555), followed by increased lifetime earnings for children served (\$4,800) and the improved health from increased educational attainment (\$3,685 for scholars and \$720 for children). Amongst stakeholders, the leading beneficiary are Scholars due in large part to the increased lifetime earnings, followed by the children served.

SROI Summary Figures

Table 1. Projected SROI by stakeholder

Total	\$5.52	Description
Scholar	\$3.65	Increased lifetime earnings and improved health
Child	\$0.71	Increased lifetime earnings and improved health
Taxpayers - Federal	\$0.65	Additional taxes paid from additional earnings
Taxpayers - State	\$0.33	
Taxpayers - Local	\$0.14	
Community Partner	\$0.03	Avoided organization spending from improved classroom support and student to educator ratio
Accelerate Partners	\$0.004	Increased company productivity and improved intern-employee conversion rate from Accelerate program

Monetized Outcomes

7 outcomes monetized include:

1. Increased lifetime earnings from increased college graduation rates for Page Scholar
2. Increased lifetime earnings from improved academic performance for children served
3. Improved health from increased educational attainment for Page Scholar
4. Improved health from increased educational attainment for children served
5. Avoided organization spending from improved classroom support and student to educator ratio
6. Increased productivity through cheaper labor - Accelerate internship
7. Reduced onboarding costs from hiring Page Scholar intern

Core Assumptions

Below are the core assumptions of this analysis. Additional assumptions are built into the individual outcome estimates and are discussed in the technical document.

- **Counterfactual** - This analysis is assumed to be in comparison to students bearing similar characteristics who may be receiving similar scholarship grants and services. Page Scholars are coming from Minnesota high schools and are accepted into a Minnesota college or university.
- **Characteristics of scholars served** - While there are differences between the Scholars served, we assign an average benefit per Scholar served in alignment with the secondary research or based on Page Education Foundation data, where possible.
- **Graduation rate** - We assume Scholars will have a 6 year graduation rate similar to the 63% referenced by Page Education Foundation.
- **Degree Major** - We assume that Scholars do not switch majors since the time of surveying.
- **Duration of impact** - Different outcomes have a different projected duration based on the type of outcome and who is receiving the value of the outcome.
- **Multi-year benefits** are discounted to a present value with a 3.5% discount rate.

General FAQs

What is the purpose of this analysis?

- To accurately account for the social value generated by Page Education Foundation and to communicate that value with target stakeholders
- To provide an evidence-based valuation of the impact and identify the people to whom the benefits accrue

What is a Social Return on Investment?

Social Return on Investment (SROI) is an adaptation of the financial ROI metric. It is used to measure social gains (returns) in addition to the standard economic gains, all as a result of a financial investment. It accomplishes this by placing financial value on the social and environmental gains identified. It does not include non-monetizable impacts.

There are two primary definitions of SROI used in the field of impact accounting.

- 1. A benefit-cost ratio:** This is the value generated for every dollar invested. It is calculated as:

$$\frac{\text{Social} + \text{Environmental} + \text{Economic Benefits}}{\text{Investment}}$$

This is the definition used by Ecotone to communicate value creation. For example, the SROI number shown on the Impact Value Map is the “Estimated Return on Investment” divided by the figure “Average cost per scholar”

- 2. A percent return:** SROI can also be communicated as a percentage, similar to a typical financial return. The calculation of the SROI in this case is:

$$\frac{(\text{Social} + \text{Environmental} + \text{Economic Benefits}) - \text{Investment}}{\text{Investment}} \times 100\%$$

When calculating the return as a percentage, the size of the investment is subtracted from the benefits generated so as to isolate the net benefit from the investment. For Page Education Foundation, this definition results in an SROI of 452%.

Future development of the field will likely isolate a single definition. We note them both here to clarify our own calculation as well as enable increased understanding of SROI metrics a client may see elsewhere.

GENERAL FAQs

How does SROI compare to ROI?

ROI is a purely financial calculation:

$$\frac{\text{Gain from Investment} - \text{Investment}}{\text{Investment}} = \text{ROI}$$

ROI alone does not measure the full impact of a program.

How does this valuation differ from an economic impact study?

This analysis is focused on monetizing social impacts. This is distinct from an economic impact study given that we are not including estimations of economic growth, business activity, indirect employment changes. While social and environmental impacts certainly can influence economic conditions, that is beyond the scope of this analysis.

What is a non-monetized impact?

In addition to SROI, there are impacts that are not monetized due to their intangible nature and/or the lack of quality data to support monetization presently. As future studies are conducted however, certain impacts may become monetizeable.

GENERAL FAQS

What is a 'good' SROI?

While there is no standard definition of what a 'good' SROI consists of, the first step in noting the cost effectiveness of the investment is simply having a return greater than the costs, i.e. an SROI greater than \$1. In some investor communities, an SROI of \$2.50 is used as a benchmark for screening potential investments. This benchmark however is not based on evidence that a return below \$2.50 is 'bad', but simply that it has served as a tool to limit those investments under consideration. This inherently places greater importance on those interventions that are able to more readily monetize their outcomes, as well as those interventions that have more near-term impacts, being less burdened by discount rates tied to long-term outcomes.

Further, using a single SROI benchmark across all sectors is risky, as different sectors are associated with greater SROIs. Comparing a workforce development SROI to an early childhood program's SROI becomes a comparison of apples and oranges. We recommend comparisons between programs that are as similar as possible - and even then there may be nuance that is important to recognize. This nuance however is that aspect unique to organizations from which they can better manage and maximize their impact, using the SROI as both an external facing communication piece, but also, and equally important, the SROI becomes that internal accounting tool to understand organizational impact, recognize value pathways, improve KPIs, understand key assumptions and seek new learnings over time.

What is Ecotone Analytics GBC?

Ecotone is a Minneapolis-based impact accounting and stakeholder communication firm. Its mission is to help clients scale their social and environmental impact by communicating impact value to stakeholders and investors.



Project Specific FAQs

Understanding the Deliverables

How can the Impact Overview 4-page brochure be used?

This brochure can be used to provide an overview of the various aspects of Page Education Foundation's impact model to support communication with interested stakeholders such as potential funders, high schools, colleges and universities, Scholars, among other stakeholders.

- The United Nations' Sustainable Development Goals (SDGs) show alignment with global impact areas.
- The logic model displays Page Education Foundation's impact strategy for its scholarship program.
- The Impact Management Project (IMP) 5 dimensions of impact are used for concise impact communication.
- The Key Performance Indicators (KPIs) show the impact tracking and management process in place.
- The SROI shows a rigorous, evidence-informed projection of social impact measurement in commonly understood terms (dollars).
- The letter from the Executive Director and Cofounder puts this information into context, giving the brochure the voice of leadership, and communicating a message to a target audience of the brochure.

What does this analysis mean for investors/funders?

This analysis serves to create a baseline of the projected social value generated by Page Education Foundation. The impact value map illustrates the projected impact generated from the average investment per Scholar, communicating the types of benefits that can accrue from the scholarship program and providing a detailed picture of what funders' dollars support. The analysis also highlights different stakeholder groups who receive value from Page Education Foundation's work, illustrating the reach of the scholarship program beyond simply the Scholars themselves.

PROJECT SPECIFIC FAQs

What is the ‘shelf life’ of this analysis?

Generally, if elements in the cost structure change, if there’s a new experimental longitudinal study linking tutoring, financial assistance, mentoring, and/or career development support to improved outcomes, if aspects of the scholarship program change, or if the target population served by Page Scholarship or Service to Children program change, then the SROI would likely need updating as well. The analysis may also be updated as further data is collected by Page Education Foundation, allowing for the estimation of additional monetized outcomes that at present have more limited data.



Understanding the Analysis

How did Ecotone calculate the SROI?

What was Ecotone's process?

Ecotone's process analyzes and combines external literature of the highest level of evidence of causality with internal organization data where possible to quantify and project the potential value generated by Page Education Foundation, while identifying the people and entities to whom the benefits accrue. Where possible, outcomes were monetized. When monetization was not possible, non-monetizable outcomes were noted. This analysis is conservative and transparent in all calculations to ensure nothing is overstated, there is credible evidence, and there is no double counting of value.

What resources were used for this analysis?

Many external resources were used, ranging from rigorous scientific studies to newspaper articles or expert opinions. A full bibliography is included at the end of the technical documentation and is ranked by level of evidence of causality. Whenever possible, resources with higher levels of evidence are utilized over lower levels of evidence.

How were costs estimated?

The costs of this analysis are derived from the audited financial statements of Page Education Foundation, in addition to estimated volunteer time and Page Accelerate Program costs. To manage for slight year to year fluctuations we take the average value over the past 4 years (2018 - 2021) as an appropriate estimate. We estimate the total cost to serve a Page Scholar based on 2 year participation. Table 2 shows the breakdown of this estimate.

Table 2. Average cost per Scholar

	Value
Average cost per Scholar per year (including volunteer time and Accelerate program costs)	\$3,075
Total average cost per Scholar over 2 year duration	\$6,150

PROJECT SPECIFIC FAQs

How were outcomes monetized?

The following provides a brief description of the estimation process for each outcome monetized. Additional details on assumptions used and resources referenced are provided in the technical document of this report.

Table 3. Estimation process by outcome

Outcome	Estimation Process
Increased earnings from increased college graduation rates for Scholar	Using the increased earnings of a Bachelor's degree compared to those with some college education, we estimate the increased likelihood of graduation for Page scholars compared to non-Page scholars with similar characteristics. This is weighted by Page Scholar majors. <i>Sources: Page Education Foundation, 2022; NCES, 2021; Webber, 2014; and Webber, 2018</i>
Increased earnings from improved academic performance for children	Using the average number of children reached per Scholar, we multiply the proportion of children reached who are performing below grade level by the proportion of scholars receiving training from the Service to Children site. This serves to align the Scholar with tutors in WSIPP, 2019, which found the increased earnings from improved test scores due to tutoring. <i>Sources: Page Education Foundation, 2022; US Department of Education, 2019; WSIPP, 2019</i>
Improved health from increased educational attainment for Scholar	We reference the additional earnings from the "Increased earnings from increased college graduation rates for Scholar" pathway and modify this by the health benefit of education in Groot and van den Brink (2006). <i>Sources: Groot and van den Brink, 2006</i>
Improved health from increased educational attainment for children	We reference the additional earnings from the "Increased earnings from improved academic performance for children" pathway and modify this by the health benefit of education in Groot and van den Brink (2006). <i>Sources: Groot and van den Brink, 2006</i>
Increased classroom productivity / Reduced school costs from classroom assistance	We multiply the proportion of Scholars providing tutoring help by the likelihood of the Scholar providing support similar to that of an educator. We project the likelihood of the Scholar providing support similar to that of an educator using Service to Children evaluations and based on the proportion of Scholars receiving training from the Service to Children site. This is then monetized by the difference in cost between educator salary and volunteer hour. <i>Sources: Page Education Foundation, 2022; NCES, 2021; Independent Sector, 2021</i>
Increased productivity through cheaper labor from Accelerate internship	Based on the proportion of Scholars participating in the Accelerate program, we multiply by the likelihood of becoming an intern and by the likelihood of providing value added service to the firm. This is monetized by the difference in intern and employee wages. <i>Sources: Page Education Foundation, 2022; Gardner, 2020; Indeed, 2022</i>
Reduced onboarding costs from hiring Page Scholar intern	Based on the proportion of Scholars participating in the Accelerate program, we multiply by the likelihood of becoming an intern and the likelihood of avoiding onboarding from hosting that intern. This is monetized by the cost of recruitment and onboarding. <i>Sources: Page Education Foundation, 2022; NACE, 2021; SHRM, 2016</i>

PROJECT SPECIFIC FAQs

What time period is included in this SROI?

This SROI is a projection based on the typical 2 year duration as a Page Scholar. The time period of the projection of each outcome is done in alignment with the existing research, ranging from 2 years to over a lifetime.

Where are the greatest uncertainties in this analysis?

As with any SROI projection, there are uncertainties in the modeling. We note them here for transparency.

- The increased graduation rate solely attributed to being a Page Scholar
- The extent health is improved by college educational attainment
- The extent average earnings from a college degree will be realized by Page Scholars and how it will vary by gender, race/ethnicity, location in Minnesota, etc.
- The extent that Scholars work with the same children, specifically the frequency and duration that Scholars work with the same child
- The likelihood of Page Scholars providing similar education support as educators or the extent that Scholars meaningfully improve student to educator ratios

What would make the SROI higher?

While increasing the SROI is not always the target of an intervention, we identified a few variables that could boost the SROI. These include:

- Increasing targeting of male, African American, and hispanic students
- Selecting Scholars with lower high school GPAs while maintaining the current graduation rate
- Increasing targeting of students pursuing STEM or Business degrees
- Maintaining the proportion of Scholars participating in the Accelerate program, while increasing internship rates
- Increasing the number of children reached per Scholar
- Targeting Service to Children hours towards serving children who are performing lower than peers
- Increasing the proportion of Scholars providing tutoring or homework help to Service to Children sites

How is this analysis different from other Ecotone analyses?

Each SROI analysis with Ecotone must take a slightly different approach in response to the extent client-specific data and effect sizes are available. While the development of the counterfactual (i.e. what would have otherwise happened were it not for Page Education Foundation) varies from analysis to analysis, this estimation as a whole takes a prospective approach - projecting social value created - as opposed to a retrospective approach which would review the value already created.

We do not know the true value generated by Page Education Foundation, but are able to estimate the value created by aligning Page Education Foundation's model with secondary research. This is a common approach for Ecotone analyses, particularly for growing initiatives that are looking to understand their impact and build out their impact management processes.

Impact Communication

United Nations Sustainable Development Goals (UN SDGs)

Why identify the United Nations' Sustainable Development Goals?

These are the blueprint, established by the United Nations, to achieve a better and more sustainable future for all and include 17 distinct goals. They serve as an easily recognizable marker of agreed upon impact areas for stakeholders.

How are the relevant SDGs selected?

Ecotone reviews the targets and indicators that make up each SDG and identifies points of alignment with the outcomes identified as a part of the analysis. Alignment is noted for those SDGs that Page Education Foundation most directly impacts. Other SDGs may be indirectly affected by Page Education Foundation's activities beyond those identified here.



IMPACT COMMUNICATION



Goal 4:

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

Target 4.1

By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes

4.1.2

Completion rate (primary education, lower secondary education, upper secondary education)

Target 4.4

By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship



Goal 8:

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

Target 8.6

By 2020, substantially reduce the proportion of youth not in employment, education or training

8.6.1

Proportion of youth (aged 15-24 years) not in education, employment or training



Goal 10:

Reduce inequality within and among countries

Target 10.1

By 2030, progressively achieve and sustain income growth of the bottom 40 per cent of the population at a rate higher than the national average

10.1.1

Growth rates of household expenditure or income per capita among the bottom 40 per cent of the population and the total population

Target 10.2






By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion or economic or other status

Impact Management Project Five Dimensions of Impact

What is the Impact Management Project and its Five Dimensions of Impact?






The Impact Management Project (IMP) is a community of 2,000+ organizations building consensus on how to measure, compare and report impact on environmental and social issues. The IMP community has developed a set of 5 dimensions of impact in order to help build consensus and a common language when organizations and investors discuss their impact. This has been a rapidly growing field, and future alignment with the 5 dimensions could help attract additional investment.

Table 4. Page Education Foundation Five Dimensions of Impact

	WHAT: Providing financial support, Page Education Foundation encourages Scholars in the pursuit of post-secondary education in addition to connecting them to mentorship and services opportunities.
	WHO: Page Education Foundation serves students of color (Black/African-American, Asian-American, American Indian, Latino/a Hispanic American, Bi/MultiRacial) who are Minnesota high school graduates planning to attend a Minnesota post-secondary educational institution full-time. Page Scholars tutor Minnesota children of color in K-8th grade.
	HOW MUCH: Annually, 500+ Page Scholars receive Page Grants averaging \$2,000+ each. Page Scholars are alums of over 125 high schools and are enrolled in 50+ colleges throughout Minnesota. There are nearly 200 Service to Children sites, with approximately 7,000 children served and 15,000 volunteer hours completed.
	CONTRIBUTION: Minnesota has some of the nation's worst gaps in educational outcomes by race / ethnicity and socioeconomic status. There is a need for financial and mentorship support to improve educational outcomes and provide students with tools for finding academic and professional success.
	IMPACT RISK MITIGATION: Financial support is complemented by opportunities for mentorship, connecting Scholars to professional networks and skills development to promote continued engagement and interest in education. Scholars themselves become mentors for K-8th students, encouraging the next generation of Page Scholars and developing a community centered on elevating access to education.

IMPACT COMMUNICATION

Table 5. Impact Management Project’s Five Dimensions of Impact Defined

Impact Dimension	Impact Questions Each Dimension Seeks to Answer
 What	What outcome occurs in period? How important is the outcome to the people (or planet) experiencing it?
 Who	Who experiences the outcome? How under served are the affected stakeholders in relation to the outcome?
 How Much	How much of the outcome occurs--across scale, depth and duration?
 Contributions	What is the enterprise’s contribution to the outcome accounting for what would have happened anyway?
 Impact Risk Mitigation	What is the risk to the people and planet that impact does not occur as expected?

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