

Return on Investment Overview

What Is Return on Investment and How Should Postsecondary Institutions Be Using It?

Higher education institutions are navigating increasingly complex technological and operating environments, with a diverse range of potential strategies to follow and initiatives to invest in. With limited resources, institutional leaders are challenged to identify the opportunities that will help their institution most effectively achieve its goals.

Deciding which projects to pursue can be daunting. Higher education institutions are expected to use data to make evidence-based decisions, and yet the evidence that leaders seek is lacking. This is both because the impacts of a new initiative can take years to be realized and because results depend on institutional context, making it nearly impossible to be confident that the impacts of an initiative at one institution can be replicated at another institution.

Furthermore, comparing different projects is difficult because the inputs and outputs of those projects vary. For example, the resources devoted to a project may include dollar expenditures, which are relatively easy to measure, and people and process changes, which have direct and indirect costs that can be much harder to quantify. At the same time, the returns from initiatives may include a combination of financial and social outcomes, making them challenging to measure and compare.

To help inform the decision-making process, institutional leaders are looking to analyses and frameworks that have proved useful in other sectors. One of these is return on investment. ROI analysis comes from the financial investing world and is used to evaluate the efficiency of an investment or to compare investment results with financial return goals. By measuring the return relative to the cost of an investment, users can assess whether their investment will generate a positive overall return (indicated by a positive ROI) and can compare investments of different sizes and varieties based on their return. ROI is calculated by dividing the net return of an investment by its cost:

$$\frac{\text{Return} - \text{Investment}}{\text{Investment}} = \text{ROI}$$

The inputs to this equation—the costs and returns from the investment—are easy to calculate when looking at an investment with costs and benefits that are in strictly dollar terms. The result of this calculation can be expressed as a percentage by multiplying by 100.

ROI is a popular metric in financial analysis because of its versatility and its relative simplicity. For example, take a share that cost \$100 to purchase and is selling for \$120 today, with a \$5 redemption fee. The inputs

to the equation are the return from the investment (selling price of \$120 minus \$5 redemption fee) and the cost of the investment (purchase price of \$100). The ROI calculation would be:

$$\frac{(\$120 - \$5) - \$100}{\$100} = 15\% \text{ ROI}$$

Seems pretty simple, right? Unfortunately, in higher education and other sectors with public and nonprofit missions, application of ROI analysis is often much more complicated than the example above, for a handful of reasons:

- 1. Higher education institutions invest in projects or initiatives that have multiple costs and returns.** A given investment opportunity may include technology costs, service costs, allocation of human resources from across departments and more. In this brief, “project cost” encompasses all the costs of the investment.
- 2. It is difficult to isolate and measure the gains and costs of individual projects.** At any time, an institution is likely working on several potentially overlapping projects in support of its goals.
- 3. Higher education institutions serve many stakeholders.** A financial investment is generally pursued with the goal of achieving a minimum level of profit for the investor. Many higher education institutions have missions that include serving learners, employers and communities more broadly. As a result, the projects they undertake likely have multiple goals and measures of success.
- 4. The costs and benefits of an institutional initiative are not strictly dollar based.** For example, improving student grades in first-year courses can be considered a benefit or gain for an institution, even if this outcome doesn't directly produce (or even indirectly produce) additional institutional income.
- 5. Many of the benefits of an institutional project can take years to be realized.** Take the example above—improving student grades in first-year courses. The downstream effects of improving student grades in those courses may include higher retention rates in two years, better job placement rates and opportunities in four years, and higher levels of graduate income in 15 years.

Despite the challenge of applying ROI in a higher education context, ROI analysis has potential benefits for institutions that can incorporate their mission and goals into the ROI calculation.

ROI in Higher Education Should Account for *Value*, not just *Dollars*

Many postsecondary institutions invest in new initiatives to help achieve their mission or strategic goals related to growth, student demographics and student outcomes. Changes in these areas should be captured in an accounting of gains and losses, even if they don't produce direct financial impacts, to help an institution assess whether the investment is “worth it” or to compare the effectiveness of one initiative versus another.

The value attributed to social outcomes achieved by a particular initiative depends on the institution. The institution's mission, strategic goals and culture all play a part in determining that value. For example, an institution that has set a goal to improve student completion by 10% should attribute value to a project outcome of improved graduation rates.

Inputs for Evaluating ROI in Higher Education

To account for the value of social outcomes in an ROI calculation, an institution should begin by considering its goals or intended outcomes for an initiative. In many cases, these goals will fit into the following categories:

- **Student access:** Expanding what the institution does by serving more students and helping current students earn the credits that they need at the right time. Progress in this category may be measured in metrics like the number of enrollments, student credit hours, and the number and types of students served.
- **Student outcomes:** Improving what the institution does in regard to educating students and helping them achieve their goals. Progress toward goals in this category may be measured in metrics like graduation and student retention rates, student grades and student satisfaction.
- **Economics:** Growing revenue at the institution or reducing costs to the institution or to learners. Progress toward goals here is likely measured in dollars.

Measuring the ROI for a project with solely financial goals and outcomes—results fitting into the third category above—can be relatively straightforward. But if an institution has set goals related to student achievement, student access or other nonfinancial results, those outcomes should be incorporated into the return portion of the ROI equation. This makes the ROI analysis more complicated and subjective.

$$\frac{\text{RETURN} \\ \$ + \text{Social Outcomes} - \text{Project Cost } \$}{\text{Project Cost } \$} = \text{ROI}$$

In this case, whether the ROI is positive depends on the value that the institution attributes to the social outcomes resulting from the project.

EXAMPLE INVESTMENT SCENARIO

ABC State University has a goal of improving first-year student retention from 75% to 78% over the next three years. Current enrollment is 15,000, including 4,000 entering freshmen each year. To reach 78% retention, the Institutional Research team assumes it needs a 10% improvement in general-education course passing rates.

ABC State determines that it will need to invest in course improvement for ten courses to achieve this goal. The investment during this three-year period will include hiring two new staff members at a cost of \$200,000 per year, plus \$150,000 in course improvement costs like course redesign and faculty development, for a total **project cost of \$750,000**. Increased first-year student retention will generate **\$1,200,000** in additional tuition from students who otherwise would have dropped out. At the same time, due to higher passing rates, tuition of **\$500,000** will be lost over the project term. The incremental cost of serving retained students will be **\$400,000**, consisting primarily of instructional and administrative expenses. Combined, the increases in revenue and costs produce a financial **return of \$300,000**.

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So is the course improvement project “worth it” to ABC State University? To start answering that question, the university could use ROI analysis. The ROI equation for this project would look like this:

$$\begin{array}{r} \text{RETURN} \\ \$300,000 + +3\% \text{ Retention} - \$750,000 \\ \hline \$750,000 \end{array} = \text{ROI}$$

Without attributing value to the change in student retention, this project would appear to generate a negative ROI for the institution (-60%). However, the analysis does not yet account for the social outcomes of the project, like achieving the institution’s goal for improved first-year retention.

To account for social outcomes, ABC State University should consider this simplified ROI calculation:

$$\begin{array}{r} \text{Value of +3\% Retention} + -\$450,000 \text{ (net return)} \\ \hline \$750,000 \end{array} = \text{ROI}$$

If ABC State University attributes value of more than \$450,000 to the outcome of improving first-year student retention by 3%, then this three-year project would generate a positive ROI for the institution. The value attributed to the improvement in retention, and therefore the determination of whether the project is “worth it” for the institution, must be decided by institutional leadership.

The ROI analysis in this scenario offers a framework for aggregating the costs and benefits of the project and determining the minimum value that an institution would need to place on a desired social outcome in order for a project to generate a positive ROI for the institution. It does not tell ABC State University how to value the progress toward its retention improvement goals; rather, it provides flexibility for the institution to determine a value that reflects its mission and strategy.

By attributing value to the social impacts of a project in an ROI analysis, institutions have the power to account for their mission and values in the evaluation of new and existing initiatives. This power must be used responsibly. *Attributed value should not be used to bring the ROI of every project into positive territory.* With management of costs, financial sustainability and rising tuition rates on the minds of many institutional leaders and stakeholders, it is crucial that leaders use fair and consistent judgment in attributing value to social outcomes to maintain the credibility of their analysis and investment decisions.

Using ROI to Make More Informed Decisions

Colleges and universities have greater difficulty calculating returns on their investments than people making similar calculations related to investments in hard goods, real estate or securities. While ROI is relatively simple when the measure of success is strictly a financial return, success for a higher education institution is multifaceted and complex. Given the complexity, ROI analysis should be approached as a way to take stock of

the costs and benefits of a project in order to compare it to other projects or to assess whether it generates a return to the institution. By leveraging ROI to inform decision-making, institutional leaders can move toward more systematic evaluation of opportunities and initiatives that require investment and may have potential to move an institution toward its goals.

NOTES ON USING ROI

- ROI can be used to assess a prospective investment or to measure an investment's return retroactively. In forward-looking analyses, future returns may be difficult to predict accurately and should be estimated as a range. It is helpful to think about acceptable ranges for ROI and the likelihood that your project will generate ROI in that range.
- ROI doesn't inherently capture the factor of time. As a result, two projects that generate the same return over very different time horizons would have the same ROI. It's important to consider the implications of time horizon in your evaluation of projects.
- The size of investment also matters: A \$500 project and a \$2 million project may each generate a 10% ROI, but they generate very different returns in total dollars (\$50 and \$200,000, respectively).
- Some organizations set minimum ROI thresholds for their investments. For example, you may decide that only projects with a 5% or greater ROI are "worth it."

CONSIDERATIONS FOR ATTRIBUTING VALUE TO SOCIAL OUTCOMES

- Institutional goals for:
 - Student success.
 - Target student demographics or populations.
 - Accessibility of courses or programs.
 - Costs to students.
- Potential downstream effects of the social outcomes of the project, including improved job placement rates, higher lifetime earning potential and positive economic impacts for a community.