



IMT Apprenticeship Provides Positive Return on Investment for Employers

A [new study](#) from JFF shows that U.S. advanced manufacturers that implemented the Industrial Manufacturing Technician (IMT) Registered Apprenticeship program had an impressive return on investment (ROI) of 48 percent for employers during the terms of their apprenticeships. Additionally, the program had positive effects on worker productivity—even in the short term. The data in this limited study reinforces the findings of previous research.

For every \$1.00 a business spent on its IMT apprenticeship program, it saw a return of \$1.48.

The IMT Registered Apprenticeship is an 18-month, 3,000-hour program that focuses on upskilling entry-level production workers in advanced manufacturing. On average, workers start at \$18.50 an hour to produce for their business, but they also learn how to:

- Set up, operate, monitor, and control production equipment;
- Improve manufacturing processes and schedules to meet customer requirements;
- Understand manufacturing as a business system that integrates multiple disciplines, processes, and stakeholders; and
- Efficiently and safely manage time and materials.

JFF's study is one of only a handful that have ever looked at the monetary benefits and costs of Registered Apprenticeship in the United States. The [Next-Gen IMT Apprenticeship: A Return on Investment Study](#) conducted six case studies of separate IMT apprenticeship programs, each with different sponsors. The mixed method study combined qualitative and quantitative data, weaving together employer interviews with cost and benefit data analysis. The data included the apprentice's wages and benefits, wages for the apprentice's supervisor during the time of training, costs of related technical instruction, and the productive work of the apprentice. Research was conducted between September and December 2019.



Three of the case sites were analyzed in-depth. For the other three sites, organizational policies, privacy concerns, and a lack of information allowed for only partial analysis. These difficulties are consistent with previous ROI studies in the United States that have noted similar issues, in part due to businesses' lack of adequate records to calculate ROI. In order to gain a better informed understanding of the direct financial benefits of Registered Apprenticeship, the field needs to address and improve the collection of financial data across organizations. With improved financial data collection, future studies will be able to add to the existing body of knowledge pertaining to the ROI of Registered Apprenticeships.

Despite the challenges in data collection, the results of JFF's study are encouraging for Registered Apprenticeship and are in line with [international studies](#) that have suggested that for every \$1.00 spent on apprenticeship, employers may get an average of \$1.47 back in increased productivity, reduced waste, and increased innovation. JFF's study showed that for every \$1.00 a business spent on its IMT apprenticeship program, the revenue received as a result of the apprentice's work averaged \$1.48.

In addition, interviews showed that these businesses reported additional benefits such as:

- Comprehensive training for workers (a type of training composed of a combination of knowledge, skills, and capabilities);
- Upskilling incumbent workers;
- Improved retention and recruitment
- Increased productivity; and
- Improved product quality

What's more, businesses were seeing these positive returns throughout the course of the apprenticeship, not just when the apprentice had become a journeyworker. This suggests that apprenticeship can be effective as both a long-term strategy for workforce growth and development and a short-term solution to meet current labor supply needs. This is good news for manufacturers because it indicates that a new apprentice can very quickly create a positive return for the business.

The research for this study was conducted before the COVID-19 global pandemic necessitated the scaling back or shuttering of manufacturing plants across the United States. However, JFF believes that [apprenticeship will be vital](#) to manufacturing's post-COVID recovery. Apprenticeship programs such

as the IMT can efficiently and effectively train and develop new, more flexible talent; transfer knowledge from older employees to younger employees; and renew an emphasis on safety in the workplace.

Pre-COVID, data from September 2019 showed that there were more than 500,000 unfilled manufacturing jobs in the United States.¹ According to previous research, 74 percent of manufacturers indicated that employee shortages or inadequate talent availability were limiting their ability to expand and increase productivity.² The research estimated that overall U.S. unemployment could be reduced by a total of 3.75 million workers if the skills gap were closed, including through training programs such as apprenticeship. Not only

could those 500,000 jobs be filled, but 500,000 additional jobs could also be created from manufacturing growth and 2.75 million new jobs could be created in related industries.

JFF's new study suggests that the time and cost that businesses invest in an apprenticeship program are well worth it. Not only do these programs improve a company's bottom line, they are effective as a long-term strategy for the growth and development of the company's workforce, and could also be effective as a short-term solution for meeting urgent labor supply needs.

Learn more about JFF's study and the IMT program at jff.org/imt

About the Center For Apprenticeship & Work-Based Learning

JFF is a national nonprofit that drives transformation in the American workforce and education systems. For 35 years, JFF has led the way in designing innovative and scalable solutions—including apprenticeship and work-based learning programs—that create access to economic advancement for all. These programs are proven methods for connecting people to good careers while providing employers with skilled workers. The Center consolidates JFF's broad skills and expertise on these approaches into a unique offering. We partner with employers, government agencies, educators, industry associations, and others to build and scale effective, high-quality programs. Visit jff.org/center.

1. Kate Rogers, "Manufacturing Is Facing a Growing Skills Gap That Is Leaving Hundreds of Thousands of Positions Open," CNBC, October 4, 2019, <https://www.cnbc.com/2019/10/04/manufacturing-sector-is-facing-a-growing-skills-gap.html>.
2. Craig A. Giffi, *Manufacturing Opportunity* (New York: Deloitte University Press, 2012).