



Nuts, Bolts & Thingamajigs Foundation
SCHOLARSHIP PROGRAM IMPACT STUDY
Evaluating NBT Scholarships
October 2024



Nuts, Bolts & Thingamajigs Foundation
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Executive Summary

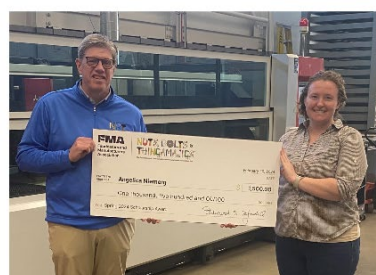
Program Background and Impact Study Description

Nuts, Bolts & Thingamajigs® (NBT), the foundation of the Fabricators & Manufacturers Association, International® (FMA), is working to address the impending labor shortage crisis. NBT fulfills its mission to engage, nurture, and excite individuals of all ages in the pursuit of careers in manufacturing through its scholarship, summer manufacturing camp, and inclusion manufacturing camp programs.

NBT awards scholarships twice per year to high school graduates and returning students enrolled in manufacturing-related degree and/or certificate programs. NBT scholarships help alleviate financial burdens and barriers that many students face in entering and completing post-secondary education. For the 2023-2024 academic year, NBT received one thousand four hundred forty-three (1,443) applications and awarded seventy scholarships totaling \$105,000. NBT received the most applications (929) for the fall 2024 semester and awarded scholarships to 60 applicants for a total of \$120,000.

A mixed-methods approach, utilizing both quantitative and qualitative data, was used to evaluate the impact of NBT's scholarship program. The evaluation presented here is based on survey data collected from scholarship recipients awarded NBT scholarships between 2018 and 2024, as well as interview and focus group data collected from scholarship recipients, post-secondary institution instructors, and manufacturers. In order to explore areas of program impact and individual outcomes not covered by the closed-question surveys, we utilized open-ended survey questions, interviews, and focus groups were utilized, and conducted a qualitative study. The mixed-method study aimed to answer the following evaluation questions:

1. What has been the impact of the NBT scholarship program?
2. How well designed and implemented is the NBT scholarship program?
3. How valuable are the NBT scholarships to recipients, educational institutions, and manufacturers?



Key Findings

Findings from the impact study show that NBT scholarship awards:

1.) Provide multiple financial benefits to scholarship recipients.

- 82% of scholarship recipients reported that the scholarship helped to lower the burden of costs indirectly related to college such as food and transportation.
- 64% of scholarship recipients reported the scholarship lowered their overall student debt.

2.) Encourage scholarship recipients to persist toward finishing their degree program.

- 57% of scholarship recipients reported the scholarship helped them to focus on their studies due to less hours working a job.
- 49% of scholarship recipients reported they had increased confidence in completing their degree or certificate program due to the scholarship award.

3.) Offer additional benefits to scholarship recipients and the manufacturing industry.

- 77% of scholarship recipients reported the scholarship encouraged them to enroll in a manufacturing-related degree program.
- 43% of scholarship recipients reported they were encouraged to consider a program or field of study they had not considered before.

Recommendations

Recommendations presented here cover steps to enhance the scholarship program and ensure the program consistently delivers quality results.

1. **Reflect on ways to raise scholarship recipients' awareness of the ancillary benefits to receiving an NBT scholarship award.**
2. **Provide a how-to guide for promoting NBT scholarships.**
3. **Consider ways to evaluate the NBT scholarship program on an on-going basis.**

Overview of NBT Programs and Scholarships

Nearly a decade ago, industry studies indicated that manufacturing would continue to grow and nearly 3.5 million jobs would be needed in the US¹. Since then, the number of trained and qualified individuals seeking manufacturing jobs has not grown enough to meet the demand as more trained workers transition to retirement. During the first quarter of 2024, over three-fifths of manufacturing executives surveyed (65%) by the National Association of Manufacturers reported that attracting and retaining a quality workforce remains a challenge². Nuts, Bolts & Thingamajigs® (NBT), the foundation of the Fabricators & Manufacturers Association, International® (FMA), is working to address the labor shortage crisis. Through a suite of programming spanning from middle school to post-secondary, NBT engages, nurtures, and excites individuals to pursue manufacturing careers.

NBT runs three programs: Summer Manufacturing Camps geared toward youth ages 12 – 16, which aim to raise awareness of manufacturing careers through hands-on project-based learning, guest speakers, and tours of manufacturing companies; Inclusion Manufacturing Camps for transition-aged adults with disabilities, primarily ages 18-30, which provides skill-building and real-world work experience in a manufacturing setting; and a Scholarship Program for high school graduates and returning students pursuing degrees or certificates in manufacturing-related fields. NBT strives to demonstrate its programs' successes and continually improve programming by evaluating its programs regularly. The focus of this report is on NBT's Scholarship Program.

NBT provides individual scholarships of up to \$2,000 per semester through three different scholarship offerings:

- *Trade School, Community/Technical College, or University Scholarships* are open to all students pursuing degrees that will lead to a career in manufacturing.
- *The U.K. Gupta & Family Scholarship* gives primary preference to manufacturing students attending universities in northern Texas.
- *The John Grossheim Memorial Scholarship* gives primary preference to employees and their dependents of FMA Outside Processors Council (OPC) member companies.

Eligible scholarship applicants must be enrolled in or entering a certificate or degree program that leads to a manufacturing career on a full-time basis (12 or more credit hours) or part-time basis (minimum of 6 credit hours) if also working while attending school. Students attending or enrolled at an FMA member school receive priority consideration for scholarships. Additionally, FMA members, company members' employees, and their dependents receive priority consideration for NBT scholarships. NBT allows scholarship recipients to apply each semester while completing their degree or certification, and they can receive scholarships more than once. In addition to their NBT scholarship, recipients receive a free one-year membership to FMA. The membership includes access to educational resources, FMA publications, and admission to FMA's annual tradeshow, FABTECH. In addition, scholarship recipients are eligible to apply for FABTECH travel grants.

¹ Deloitte LLP and The Manufacturing Institute (2015) The Skills Gap in U.S. Manufacturing, 2015 and Beyond.

² National Association of Manufacturers (2024) First Quarter 2024: Manufacturers' Outlook Survey. Retrieved from: <https://nam.org/2024-first-quarter-manufacturers-outlook-survey/>

Literature and Best Practices Review

Over the past two decades, tuition, fees, room, and board (TFRB) have increased nearly two and a half times faster than the median family income³. The average cost of college annually in the US is \$38,270 per student⁴. For many who are considering a post-secondary education, high tuition costs are the first of several barriers to pursuing a degree or certificate program. A recent survey of college-aged adults found that the cost of post-secondary education is the top reason that keeps prospective students from enrolling in a degree program and pushes current students to drop out of college⁵. That same study also highlighted that more than 40% of students enrolled in technical colleges reported a significant barrier to enrollment or finishing a degree was their employers' denying coverage of tuition or only covering some of the costs of a degree program. Manufacturing jobs are in-demand and high-paying, but the degrees and certifications needed to enter the workforce are often priced out of reach.

Once students overcome the cost of college through financial aid and/or student loans, many still face challenges such as stable housing and food security. Two recent surveys shed light on the growing number of college students experiencing basic needs insecurity. In one study, 58% of survey respondents reported experiencing basic needs insecurity⁶. A national survey done at the same time

highlighted a finding that 8% of undergraduate students experienced homelessness 30 days prior to completing the survey⁷. With most undergraduate students in the US living off-campus and reliant on renting in local housing markets, which averages at \$1,967 per month, making housing unattainable for most working class and low-income students. College students facing homelessness or housing insecurity are less likely to persist toward degree completion and graduation.

The National Bureau of Economic Research has found that scholarship support increases the likelihood of enrollment, helps students focus on their education, and improves persistence and degree completion, especially for low-income students.

³ Butler, N., and Torres, T. "Housing Insecurity and Homelessness Among College Students", Bipartisan Policy Center, August 15, 2023, <https://bipartisanpolicy.org/blog/housing-insecurity-and-homelessness-among-college-students/>

⁴ Hanson, Melanie. "Average Cost of College & Tuition" EducationData.org, May 28, 2024, <https://educationdata.org/average-cost-of-college>

⁵ Cengage Group (2021) Report: Barriers to Post-Secondary Education, https://engage.widen.net/s/w52pbrzwlm/cg_barrierspostsecereport_final

⁶ The Hope Center for College, Community, and Justice (2021) The Hope Center Survey 2021: Basic Needs Insecurity and the Ongoing Pandemic. <https://hope.temple.edu/sites/hope/files/media/document/HopeSurveyReport2021.pdf>

⁷ National Center for Educational Statistics (2020) National Post-Secondary Student Aid Study: 2020 Undergraduate Students. <https://nces.ed.gov/datalab/codebooks/by-subject/157-national-postsecondary-student-aid-study-2020-undergraduate-students>

Scholarship support increases the likelihood of enrollment, helps students focus on their education, and improves persistence and degree completion, especially for low-income students⁸. A meta-analysis on the impact of scholarships on college students found that scholarships increase the probability of student persistence and degree completion between two and three percentage points⁹. Additionally, this study found that by increasing aid by an additional \$1,000, persistence improves by 1.2 percentage points. Higher levels of persistence and degree completion mean that more students are likely to gain the skills needed to be successful in their chosen career paths; this is especially important to manufacturing fields that have a significant demand for more workers. As the demand for skilled workers continues, NBT provides scholarship opportunities to ensure more young people and returning adult students can pursue education that leads to well-paying manufacturing careers.

⁸Angrist, J., Autor, D., & Pallais, A. (2020). Marginal Effects of Merit Aid for Low-Income Students. National Bureau of Economic Research: Working Paper No. 27834. Retrieved from: <https://www.nber.org/papers/w27834>.

⁹ Nguyen, T. D., Kramer, J. W., & Evans, B. J. (2019). The Effects of Grant Aid on Student Persistence and Degree Attainment: A Systematic Review and Meta-Analysis of the Causal Evidence, *Review of Educational Research*, Vol. 89, No. 6, pp. 831–874.

Evaluation Design, Methodology, and Procedure

A mixed-methods approach, utilizing both quantitative and qualitative data, was taken to evaluate the impact of NBT's scholarship program. The evaluation presented here is based on survey data collected from scholarship recipients who were awarded NBT scholarships between 2018 and 2024, interview data collected from scholarship recipients and focus group data collected from post-secondary institution instructors and manufacturers. In order to explore areas of program impact and individual outcomes that the closed-question surveys did not cover, open-ended survey questions, interviews, and focus groups were utilized, and a qualitative study was conducted. The mixed-method study aimed to answer the following evaluation questions:

- 1. What has been the impact of the NBT scholarship program?**
- 2. How well designed and implemented is the NBT scholarship program?**
- 3. How valuable are the NBT scholarships to recipients, educational institutions, and manufacturers?**

NBT has not formally evaluated its scholarship program; therefore, outcomes and measurements were developed specifically for this impact study. As a first step in this process, NBT developed short- and medium-term outcomes for its scholarship program based in literature and best practices research related to the impact of scholarships on college students. These outcomes were added to NBT's already existing Theory of Change.

Scholarship Study Sample and Stakeholder Recruitment Process

In order to evaluate the impact of and inform improvements to NBT's scholarship program, we sought to gain insight from multiple stakeholders. These stakeholder groups include scholarship recipients, instructors from technical colleges, community colleges, and universities where scholarship recipients attend, as well as manufacturers involved in the scholarship review process. By engaging these three stakeholder groups, we hoped to gain insight into not only the outcomes achieved by the scholarship program, but also uncover the unique value of the NBT scholarship program and ways to improve the processes regarding scholarship program promotion, award notification, and fund distribution.

With respect to our study sample, we developed a convenience sample for each of the stakeholder groups. Scholarship recipients who received awards between the years 2018-2024 were selected. We set the year parameters as such because NBT does not require past award recipients to provide updated contact information after they graduate. NBT only updates contact information if the recipient reaches out with a contact information change. We assumed that NBT would have more current contact information for recent award recipients; therefore, we capped our study sample to include awardees for the last seven years.



We originally intended to conduct two to three focus groups of scholarship recipients via Zoom. Recruitment strategies for the scholarship recipient focus groups began by sending a survey to capture basic demographic information and ensure we had the most recent email address and phone number of the scholarship recipients interested in participating in a focus group. The recruitment survey was sent out through Qualtrics to two hundred and seventy-nine (279) scholarship recipients. Nineteen (19) respondents signed up for a focus group, forty-five (45) declined participation, two hundred seven (207) did not respond to the survey, and seven (7) emails bounced. Ultimately, sixteen (16) scholarship recipients confirmed their interest in participating in one of two focus groups in the follow-up to the day the focus groups were scheduled. On the day of the focus groups, one person attended per focus group. After reaching out to the remaining scholarship recipients who signed up for the focus groups to see if they would be interested in a brief interview at their convenience, one participant agreed. Therefore, we conducted three interviews with scholarship recipients.



Due to the low turn-out for focus groups, we created and sent out a survey via Qualtrics that covered the same themes from the scholarship recipient focus group guides. The survey was sent to all scholarship recipients from the original sample that did not participate in the interviews (n=264). The survey was open for two weeks and two reminders were sent out to encourage participation. We received forty-six (46) responses out of two hundred sixty-four (264) surveys sent, resulting in a 17% response rate.

Instructors at post-secondary institutions that have hosted NBT Summer Manufacturing Camps and have had scholarship recipients attend their institutions were recruited via a survey sent from Qualtrics that asked for basic demographic information and their interest in participating in a focus group. The survey was sent to seventy-two (72) instructors and fourteen instructors signed up for the focus group. On the day of the focus group eight instructors participated via Zoom. Manufacturers who participated on the review committee for scholarship applications were recruited to participate in a focus group. Eighty-two (82) manufacturers were sent a survey that asked for basic demographic information, as well as their interest and availability to participate in a focus group. Twelve manufacturers responded that they were interested in participating in the focus group and seven manufacturers attended the focus group via Zoom. All interviews and focus groups were recorded and transcripts were produced from the recording.

As noted above, new measurements were created for this impact study. Focus group and survey questions covered several themes across stakeholder groups: impact of scholarship program, value of the scholarship program, scholarship application process, and support from NBT. In addition to those themes, instructors and manufacturers were asked questions about how they promoted the scholarship program to students or employees.

Table 1 describes the measurements, respondents, number of responses per measurement, and when the measurements were collected.

Table 1: NBT Scholarships Impact Study Measurements

Evaluation Tool Name	Respondent Type	Number of Respondents	Data Collection Timeframe
Scholarship Recipients' Survey	Scholarship Recipients	46	June-August 2024
Scholarship Recipient Interviews	Scholarship Recipients	3	June 2024
Instructor Focus Group	Instructors	8	June 2024
Manufacturer Focus Group	Manufacturers	7	June 2024

Table 2 outlines the new evaluation measurements, corresponding indicators, and methods of analyses used for the impact study.

Table 2: NBT Impact Study Measurements, Corresponding Indicators, and Methods of Analysis

Evaluation Tool	Indicators	Method of Analysis
Scholarship Recipient Survey	➤ % of scholarship recipients are enrolled in a program that directly leads to manufacturing careers ➤ % of scholarship recipients pay increased attention to their studies ➤ % of scholarship recipients have increased confidence in completing a degree due to the public recognition of receiving the scholarship. ➤ % of scholarship recipients have a reduced financial burden while attending college ➤ % of scholarship recipients graduate with a degree in field of study related to manufacturing ➤ % of scholarship recipients have a lower student debt load ➤ % of scholarship recipients graduate from their chosen programs on time.	Quantitative analysis
Scholarship Recipient Interviews	➤ Impact of scholarship program ➤ Value of scholarship program	Qualitative analysis
Instructor Focus Group	➤ Impact of scholarship program ➤ Promotion of scholarship program	Qualitative analysis
Manufacturer Focus Group	➤ Impact of scholarship program ➤ Promotion of scholarship program	Qualitative analysis

Limitations

A challenge to the scholarship impact study was recruiting an adequate study sample of scholarship recipients. Due to scholarship recipients only being in contact with NBT at the time of their award, it is speculated that many recipients no longer check the email address they provided to NBT. One major limitation to this study was the reliance on using email addresses provided anywhere between seven years ago to several months ago to recruit for the scholarship recipient focus groups and survey. While we were able to get adequate representation of scholarship recipients across all years included in the study via survey responses, most participants received their first award in the last three years.

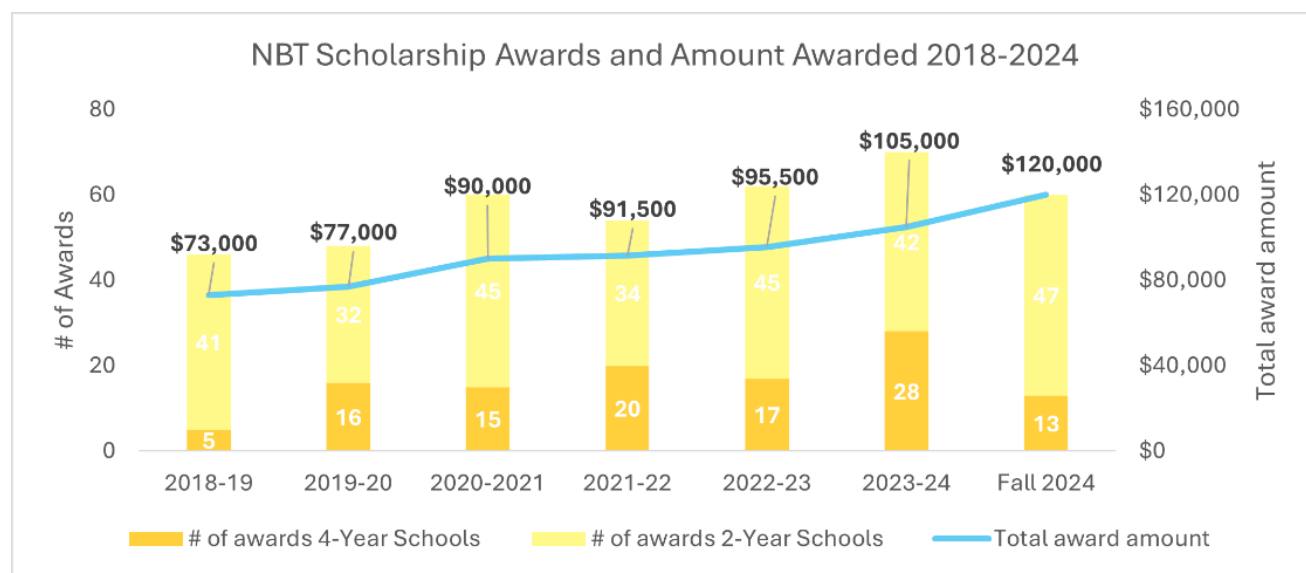


Data Analysis

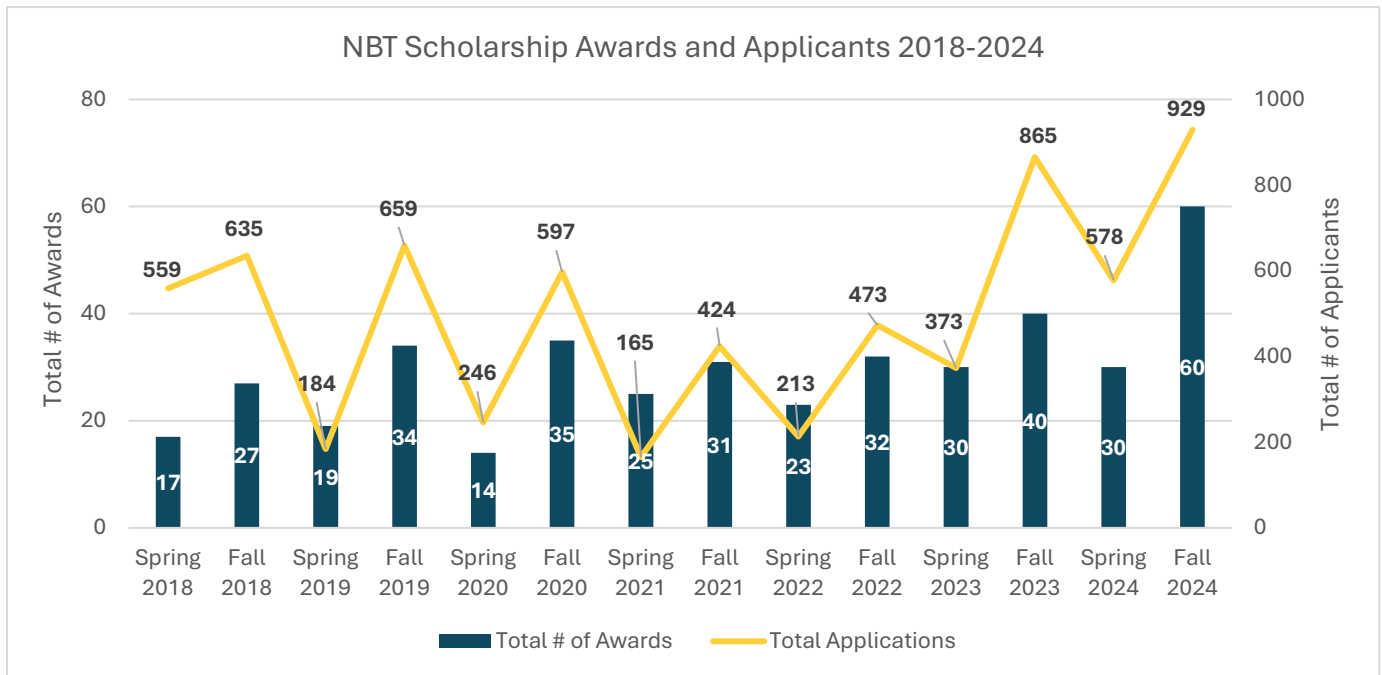
As mentioned, we employed a mixed-methods approach for this evaluation. Scholarship recipients, college instructors, and manufacturers completed surveys. NBT staff downloaded and cleaned the dataset (i.e., checked for and removed any errors in data entry, such as duplicate responses) and the evaluation consultant conducted descriptive analyses (e.g. frequencies and percentages) of survey items relevant to the evaluation questions. All three stakeholders also participated in interviews (scholarship recipients) or focus groups (manufacturers and instructors) about their experiences with the NBT scholarship program. The evaluation consultant uploaded the focus groups and interview transcripts to DeDoose (a qualitative analysis software) and developed an iterative process for coding the data, which resulted in two cycles of analyses: (1) pattern, and (2) conceptual model building. A categorized inventory of interview and focus group transcripts was conducted, laying the groundwork for thematic analysis. Pattern coding was used to organize thematic patterns that describe phenomena in the qualitative data that relate to specific evaluation questions. Following pattern coding, the evaluation consultant developed conceptual models by linking themes and emergent codes from the first analysis cycle to create a higher-level understanding of the impact of NBT's scholarship program.

Scholarships Program Growth During Study Period

Since the scholarship program's inception in 1990, NBT has awarded \$1,538,400.00 in scholarships to eight hundred and seven (807) manufacturing students. For the 2023-2024 academic year, fall 2023 and spring 2024, NBT received one thousand four hundred forty-three (1,443) applications and awarded sixty-nine (69) scholarships totaling \$103,500. NBT received the most applications (929) for the fall 2024 semester and awarded scholarship to sixty (60) applicants for a total of \$120,000. Between spring of 2024 and fall of 2024, NBT increased their scholarship award amount from \$1,500 to \$2,000. The graph above shows scholarship awards made per academic year, broken down by 2- and 4-year colleges, and the corresponding total dollar amount awarded during the impact study period.



During the impact study period, NBT’s scholarship program experienced growth in the number of applicants and the number of awards granted. While there was a drop off in applicants and awards during the height of the COVID-19 pandemic, applicant award numbers rebounded between spring and fall of 2023. The graph below shows the total awards per semester and the corresponding total number of applications.

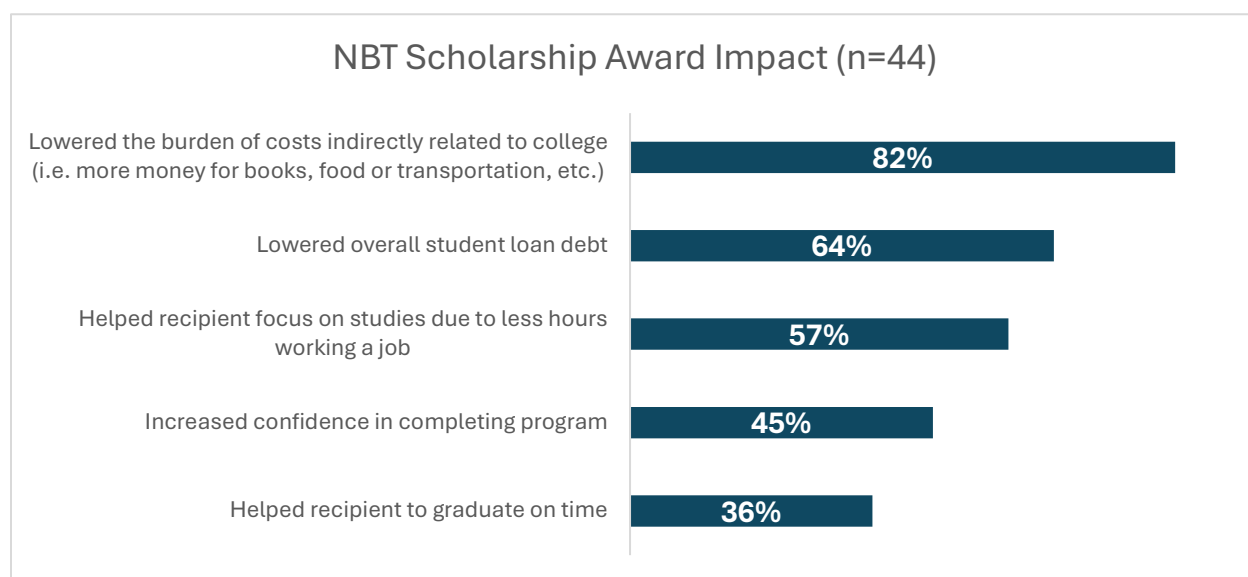


Findings – Impact

At the time of this study, all scholarship recipients who were interviewed or responded to the survey (n=49) were either currently enrolled in a program related to manufacturing (62%) or had graduated with a degree in manufacturing (44%), or both. When asked, “In what ways did the NBT scholarship award impact you while you were pursuing your degree or certification?” all interview participants discussed how the scholarship impacted them financially.

One interviewee mentioned that they had to sell several bikes in order to pay for tuition. The NBT scholarship allowed them to be able to keep one bike. Another interviewee shared that by being awarded the NBT scholarship, their parents did not have to worry about paying for their tuition and could focus on paying for their sibling’s tuition. An interviewee spoke about the immediate impact of NBT scholarship in reducing the burden of day-to-day living expenses such as gas and food. Survey responses to this question showed similar trends. 82% of participants reported the scholarship helped to lower the burden of costs indirectly related to college.

Over half of survey respondents (57%) reported the scholarship helped them to focus on their studies due to less hours working a job. Additionally, 64% of survey respondents reported that the NBT scholarship award lowered their overall student loan debt. The following graph shows survey responses regarding the impact of the NBT scholarship award.



Nearly half of survey respondents (49%) reported increased confidence in completing their degree or certificate program as a result of being awarded an NBT scholarship. Interviewees echoed this finding, and all three participants shared that receiving the scholarship helped them persist in their degree program. One interviewee shared that being awarded the scholarship helped them persist because they felt supported by a community, as described in the following quote:

“It sounds cliché, but you do feel supported. You feel like there's a community of people that want you to succeed. That really does help push you sometimes when you know that you have that community around you. It definitely gives you a reason to continue and to not give up.”

One participant from the educators focus group, who also happened to be a parent of a scholarship recipient, echoed the scholarship recipients' themes of reducing the financial burden of college and helping students have the confidence to persist in their degree program once awarded an NBT scholarship as expressed in this quote:

“I would just like to say as being a parent of a son who ended up getting [an NBT scholarship award]. It made a big difference for him to be able to finish his classes. It was a big benefit, and it really helped financially.”

As numerous research articles show, scholarship awards increase degree persistence, which leads to graduating on time. When looking at survey have graduated on time or will graduate on time. For those survey respondents that shared they would not graduate on time (n=5), three cited medical issues as their reason for delay, while two shared they are delaying their graduation due to work commitments. Perhaps because a majority of survey respondents and interviewees were still pursuing a degree or certification program at the time of the study (62%), only 36% of respondents reported that the scholarship helped them to graduate on time.

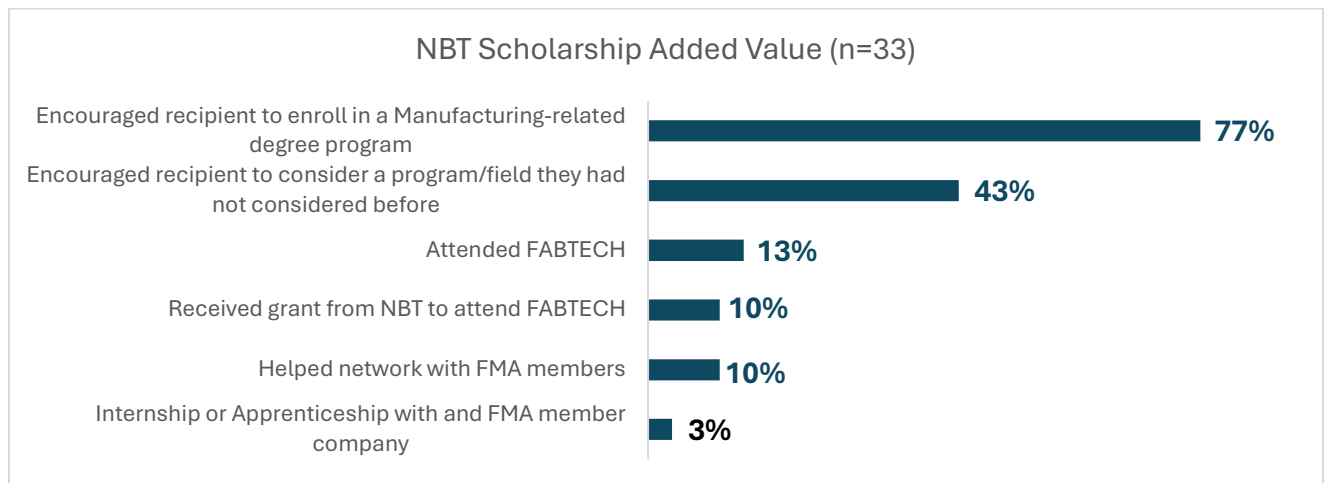


All three stakeholder groups were asked to answer the question: “From your perspective, how valuable is the NBT scholarship program to you (scholarship recipients) your school and program (instructors) or company (manufacturers)?” All three stakeholder groups shared themes that spoke to the NBT scholarship program benefiting the manufacturing industry and helping to address the manufacturing skills gap by attracting more students to manufacturing-related degree programs.

Scholarship recipients shared in survey responses (67%) and in interviews (n=3) that the NBT scholarship encouraged them to enroll in a manufacturing-related degree program. Additionally, 43% of survey respondents reported that the scholarship program helped them to consider a degree program that they had not considered before. One scholarship recipient shared:

“The scholarship was of great impact because I was having trouble deciding what I was passionate about and now I know what I want to do.”

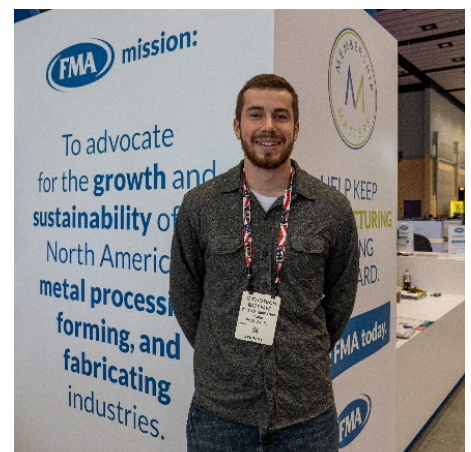
The following graph shows survey responses from scholarship recipients regarding their perceived value of an NBT scholarship.



Exposure to a professional organization for offers college students numerous benefits, such as the ability to experience industry-specific learning opportunities as well as opportunities for networking with industry professionals. A feature of the NBT scholarship award that sets it apart from other post-secondary scholarships is the complimentary one-year membership to FMA.

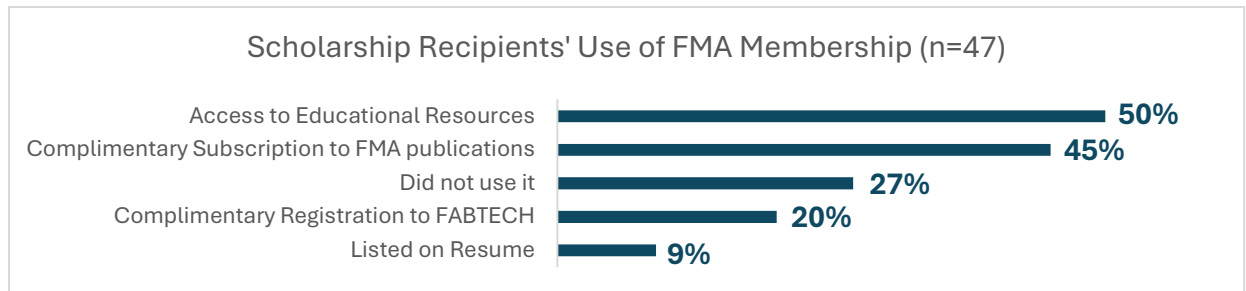
While only a small percentage of scholarship recipients noted the added value of the NBT scholarship's complimentary FMA membership - such as free registration for FABTECH, FMA's annual tradeshow; the opportunity to apply for a \$1,000 travel grant to attend FABTECH; or the opportunity to network with FMA members, meet prospective employers, or intern with FMA member companies - two of the three interviewees attended FABTECH and two interviewees reported being offered internships with FMA companies. One interviewee shared the benefits of taking advantage of NBT's travel grant to attend FABTECH as well as the complimentary registration for the conference with the following quote:

"I [received a travel grant] to go to FABTECH and it was really awesome. I learned about all these different fabrication techniques, did some augmented welding, which is really interesting. And I learned a lot about new machinery and new developments out the world. I am really thankful for it."



Matt Pape, FABTECH 2019 Travel Grant Recipient, Former Scholarship Recipient

A question for the scholarship recipient interviews and survey explored how they used their FMA membership. Half of scholarship recipients who participated in this study (50%) accessed educational resources through their FMA membership. Almost half of scholarship recipients (45%) utilized their subscription to FMA publications. Yet, a little over a quarter of scholarship recipients (27%) did not use their FMA membership as shown in the graph below.

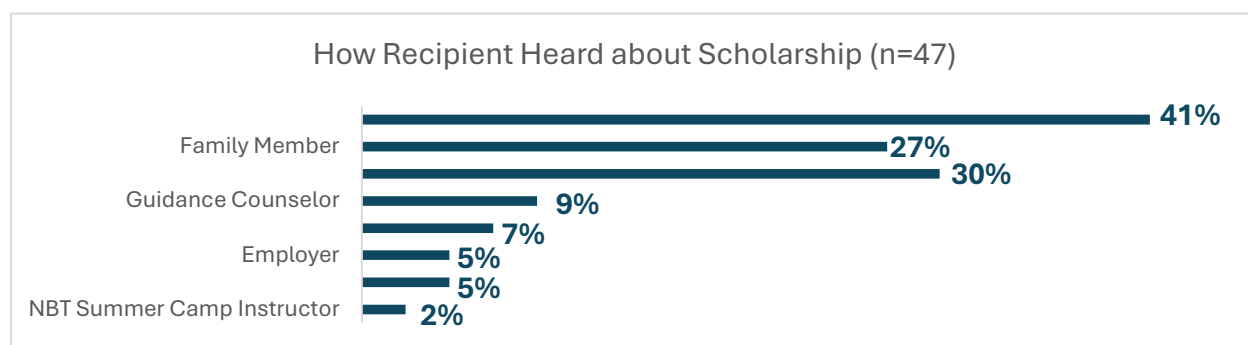


One scholarship recipient interviewee shared that they took advantage of their FMA membership after their instructor helped them to make a connection between FMA and the NBT scholarship. Perhaps students need to hear about the benefits of a professional association membership in multiple ways to better know how to take advantage of it.

Findings – Process

In addition to questions about the impact and value of the scholarship program, scholarship recipients, instructors, and manufacturers were asked to provide their experiences with the application process and the support they received from NBT regarding the scholarship program. Scholarship recipients were also asked to describe their experiences with the fund distribution process. Instructors and manufacturers were asked to describe how they promoted the scholarship program. The responses to these questions will offer insight into how key stakeholders perceive the scholarship program and identify areas for improvement.

Scholarship recipients were asked how they heard about the NBT scholarship program. Survey responses differed from those of the interviewees in that most survey respondents reported hearing about the NBT scholarship program through a web search (41%) or a family member (27%) as shown in the following graph, whereas interviewees consistently mentioned they heard about the NBT scholarship program through a college instructor.

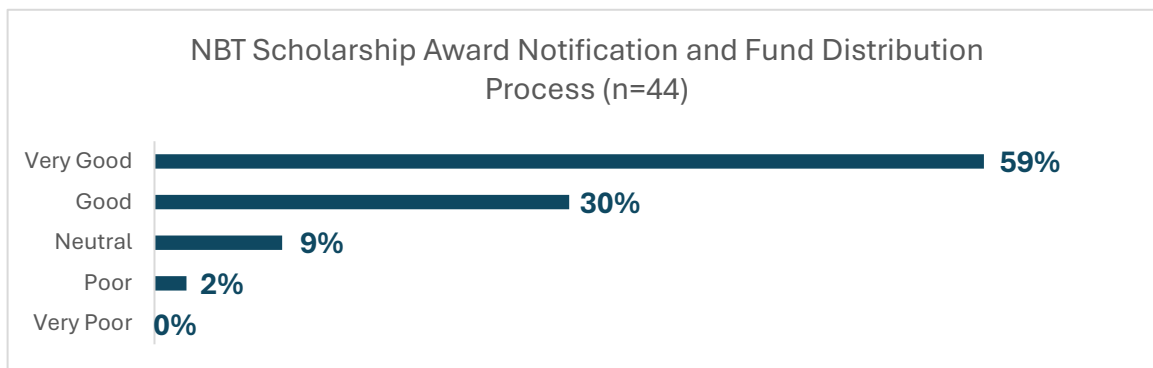


As mentioned earlier, instructors and manufacturers were asked to describe how they promote the NBT scholarship program. There was some variability in instructors' and manufacturers' answers to this question. Some college instructors who participated in the focus group promoted NBT scholarships only to existing manufacturing program students, while other participants regularly send NBT scholarship information to high school faculty and guidance counselors. College faculty who taught dual enrollment programs took advantage of the connection they had with local high schools to promote the scholarships. These focus group participants were quick to add that they were not aware of what high school faculty do with the scholarship information once it is given to them. One instructor shared that they promote NBT scholarship information to directors of high school vocational centers, but they also added they were unsure of if that information reaches students.

Most manufacturers that participated in the focus group shared that they post the scholarship program flyers NBT provides throughout their companies' workplaces. One participant shared that many employees are unaware that their company is an FMA member and that they or their children can benefit from priority consideration for NBT scholarships. Several participants did not know about the flyers NBT sends out to FMA companies to promote the scholarship program indicating that if they received it in an email, they or a designated recipient at their company, likely missed them.

Scholarship recipients, instructors, and manufacturers were asked to provide feedback on the application process. By and large, all stakeholders agreed that the application process was clear and easy to fill out. Most survey respondents (66%) rated the NBT scholarship application as ‘comparable’ to other scholarship applications. All scholarship recipient interviewees shared that the application process was straightforward and clear. One interviewee shared that they felt the scholarship was “a realistic possibility” because the criteria for consideration was focused on people pursuing manufacturing-related careers rather than scholarships that have criteria that are broader and more generic. Instructors and manufacturers shared that the scholarships were easy for applicants to fill out, to continue to reapply for, and to promote.

Scholarship recipients were asked to share their feedback on the award notification and fund distribution process. Survey respondents were asked to rate their experience on a 5-point scale. 89% of respondents rated the process as either ‘very good’ (59%) or ‘good’ (30%) as shown in the graph.



Survey respondents and interviewees were also asked to share their experience with reaching out to NBT for support with the award notification or fund distribution process. All interviewees shared examples of contacting NBT staff for support with the application or fund distribution process. All three interviewees shared that their experience was positive, they got the answers they needed if they had questions, or the issue was cleared up quickly if there was a problem. Survey respondents were asked to rate their interactions with NBT staff. An overwhelming majority of respondents (92%) rated their interactions as ‘extremely positive’ (54%) or ‘positive’ (38%).

Overall, stakeholders reported NBT’s processes for implementing the scholarship program were clear and positively received. Findings from stakeholder groups provided insight into several areas for improvement, which are covered in the next section.

Recommendations

Recommendations presented here cover steps to enhance the scholarship program and ensure the program consistently delivers quality results.



1. Reflect on ways to raise scholarship recipients' awareness of the ancillary benefits to receiving an NBT scholarship award. As mentioned in the report, NBT scholarships have unique benefits that most other scholarships do not offer. One benefit is that scholarship recipients can apply for and receive awards multiple times and for each semester in a given academic year. While most participants in this study were aware of this benefit, 30% were not. Another unique feature of the scholarship program is the complimentary membership to FMA. Again, most recipients knew about and utilized some benefits of the membership, but 25% of study participants did not. NBT should explore ways to better inform scholarship recipients and prospective applicants about these unique benefits, explain their importance, and encourage students to take advantage of them. One potential way is to recruit college instructors to discuss the connection between an NBT scholarship and the FMA with students, explaining why membership in a professional association is beneficial to college students during their degree program, and how to take advantage of it.

2. Provide a how-to guide for promoting NBT scholarships. While many instructors and manufacturers in the focus groups stated that they promoted the scholarship program by sharing the flyer NBT provides, this may not be the most effective strategy. Since the flyer is shared via email, it may get lost in the recipients' inboxes. NBT should explore alternative ways to help instructors and manufacturers engage students and employees in learning about the scholarships and the benefits that come with them. This could include a how-to guide for promoting scholarships or a video overview that could be posted on NBT's website.

3. Consider ways to evaluate the NBT scholarship program on an on-going basis. Now that NBT has articulated short- and mid-term outcomes through a Theory of Change and completed a formal evaluation of its scholarship program, NBT should think through how to solicit feedback about the scholarship program and how it impacts award recipients regularly. To do this, NBT will need to develop a system and processes for collecting, storing, and reporting this information.

Conclusions

This report highlights the first formal impact evaluation of NBT's scholarship program. Findings demonstrate clear and direct financial impact for scholarship recipients in the form of relieving the burden of indirect costs related to college as well as reducing overall student debt. Findings also showed that an NBT scholarship encourages persistence and confidence in finishing a degree or certification program. Finally, most scholarship recipients reported the scholarships encouraged them to pursue a career in manufacturing and almost half of participants were encouraged through the scholarship program to consider a career that they had not considered before. All of these findings display a lasting benefit on students' financial stability and directly benefit the manufacturing industry by having qualified candidates to fill manufacturing positions. Overall, NBT has made a lasting contribution to encourage more people to pursue manufacturing careers through its scholarship program.

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Holly Lewandowski, president of Evaluation for Change, Inc., has worked in program evaluation for over 25 years and founded her program evaluation and research consulting firm 16 years ago. Holly's program evaluation work has primarily centered on education spanning from early childhood to post-secondary with institutions such as the Ounce of Prevention Fund, Illinois Education Research Council, City Colleges of Chicago, Westat, Roosevelt University and University of Illinois at Chicago. In addition to conducting program evaluations and small research studies, she has provided capacity building on creating evaluation systems with nonprofits, foundations, and educational institutions such as the National Philanthropic Collaborative of Young Women's Initiatives, Little Brothers – Friends of the Elderly, Robert Crown Center for Health Education, and University of Illinois at Chicago. Additionally, she has held positions in evaluation and research at DePaul and Northwestern Universities. She earned her MA in Sociology at DePaul University and BA in Anthropology at Antioch College.

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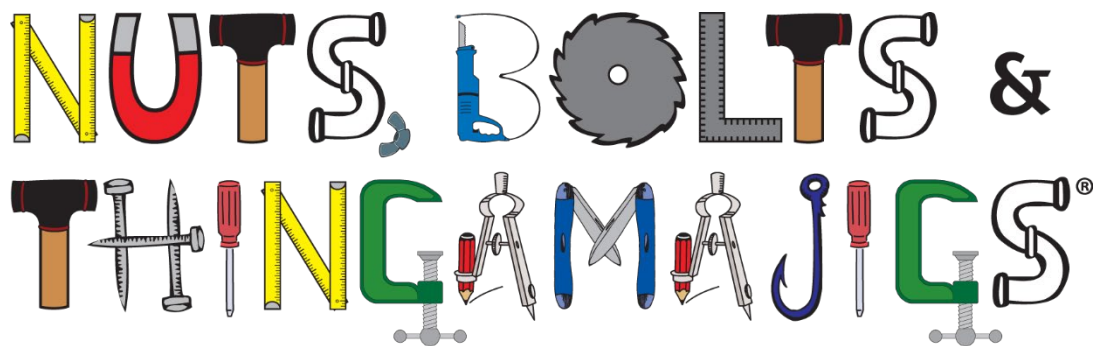
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