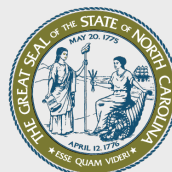


NORTH CAROLINA APPRENTICESHIP PROGRAM SURVEY REPORT

October 2020



NC DEPARTMENT
of COMMERCE
LABOR & ECONOMIC
ANALYSIS

North Carolina Apprenticeship Program Survey Report

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North Carolina Community College System
ApprenticeshipNC



North Carolina Department of Commerce
Labor & Economic Analysis Division



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SUMMARY OF FINDINGS

The North Carolina Apprenticeship Program Survey, carried out by the Labor and Economic Analysis Division (LEAD) of the North Carolina Department of Commerce on behalf of ApprenticeshipNC, contacted nearly 300 Registered Apprenticeship and pre-apprenticeship programs across North Carolina. Representatives from these programs were asked about the size and duration of their programs, the general level of satisfaction with their programs, and the specific costs and benefits associated with apprentices and certified journeyworkers (employees who have completed apprenticeship programs).

Most Registered Apprenticeship programs in North Carolina are relatively small. About 70% of the respondents have five or fewer current apprentices. The most common duration of program in the survey was four years, but programs ranged from one year to six years. The average apprenticeship program represented in the survey pays about \$36,100 annually, while training costs average about \$10,500 per year.

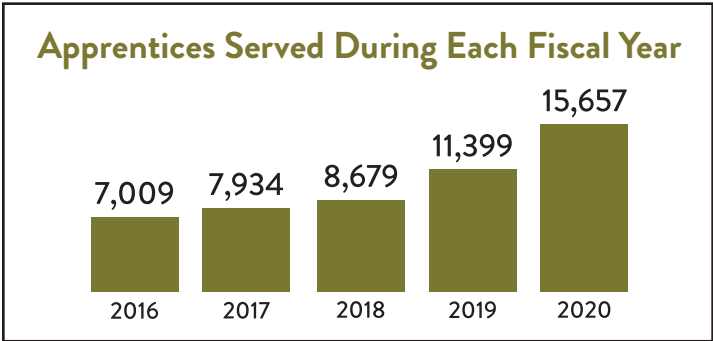
Among the survey respondents, 82% said they were satisfied with the financial impacts of their programs. The most frequently cited benefits of apprenticeship programs were increasing employees' skills flexibility and improving productivity, followed closely by improving an employer's ability to find qualified candidates. Nearly half of survey respondents said that employee turnover among journeyworkers is lower than turnover among other employees.

Of the respondents that provided sufficient data for the calculation of a return-on-investment (ROI), the average apprenticeship programs created an additional \$1.70 of value for every \$1.00 of investment in apprentices. The median program created an additional \$0.74 of value for every \$1.00 of investment. Eighty-six percent of these respondents have achieved a positive ROI by the conclusion of an average apprenticeship. Many respondents were not able to answer the survey's questions about the particular financial costs and benefits associated with apprentices and journeyworkers. Nevertheless, without estimating specific financial values, 85% of respondents believe that their apprenticeship programs provide a net benefit to their business. When asked about the value created by the average journeyworker in their company, 63% of respondents said that journeyworkers create more value than comparable off-the-street hires.

In many ways, the Manufacturing and Construction apprenticeship programs in the survey are similar to the programs in other sectors, but some distinctions are worth noting. The average annual wage of an apprentice was \$34,000 among Manufacturing programs, \$36,900 among Construction programs, and \$39,100 among the remaining respondents. However, while wages paid among the Manufacturing respondents were slightly lower than the other two groups, annual training costs were somewhat higher.

INTRODUCTION

Apprenticeships are becoming an increasingly important part of the workforce development system in North Carolina. ApprenticeshipNC, the North Carolina Community College System’s apprenticeship program, served 15,657 individuals in fiscal year (FY) 2020, the most in the past 10 years. Since FY 2016, the number of people served has more than doubled and grew 37% over the past year alone. The program is expanding because businesses are concerned about access to a skilled workforce and are turning to nationally recognized Registered Apprenticeship programs to address their workforce needs.



Source: NC Community College System, ApprenticeshipNC

Apprenticeship is an employer-driven training model that combines paid work-based learning with related classroom instruction. Apprentices’ wages increase as they progress through the program. Upon completion of training, participants earn state and federal certificates signifying their knowledge and skill set in a particular field. Depending on the program, apprentices also may complete an associate degree or other credential. ApprenticeshipNC works with businesses, industry groups, and other organizations to establish and grow Registered Apprenticeship and Pre-Apprenticeship programs in North Carolina.

This survey was designed to collect a variety of information about Registered Apprenticeship programs operating across the state. Based on survey responses, this report provides context about what apprenticeships look like in North Carolina, associated costs and benefits, and an analysis of businesses’ return on their apprenticeship investments. In order to capture the long-term implications of apprenticeship programs, the survey also gathered information on journeyworkers (employees who have completed apprenticeship programs).

METHODOLOGY

The North Carolina Apprenticeship Program Survey was administered in early 2020 to all active Registered Apprenticeship programs in North Carolina, as determined by ApprenticeshipNC staff. ApprenticeshipNC's point of contact for each company's program is called an apprenticeship sponsor. The Center for Urban Affairs and Community Services (CUACS) at NC State University administered the survey to these apprenticeship sponsors.

Most apprenticeship sponsors are employed by the same firm that employs the apprentices that he or she represents, but not in every case. Because of the flexibility of apprenticeship program structure, some sponsors work for community colleges, labor unions, or other groups that represent apprentices from multiple (sometimes many) employers with nearly identical apprenticeship programs. To reach a higher degree of accuracy in the responses, CUACS contacted these sponsors first to collect contact information for the individual employers that actually employ Registered Apprentices. The individual employers were then contacted to provide specific input on apprentices' business contributions.

CUACS first distributed email messages to the entire survey population, which included a link to complete the survey online. CUACS then followed-up by phone with sponsors who had not responded, giving them the opportunity to complete survey over the phone.

Ultimately, CUACS attempted to contact businesses representing 683 apprenticeship programs and received 297 completed surveys in response. These completed surveys reflect 280 apprenticeship programs and 17 pre-apprenticeship programs from at least 58 different counties across North Carolina.

FINDINGS

What do Registered Apprenticeship programs look like in North Carolina?

Most Registered Apprenticeship programs in North Carolina employ a relatively small number of active apprentices. Among the survey respondents, the median program has about 3 apprentices currently in their programs. About 70% have five or fewer current apprentices and 21% have only one.

Over the last five years (2015-2019), what has happened with respondents' apprentices?	
Completed apprenticeship	22%
Failed to complete apprenticeship and are no longer enrolled	17%
Still enrolled	61%

The apprenticeship programs represented in the survey average 3.2 years in duration. The most common duration of these apprenticeship program is four years. The survey suggests that four-year programs make up about 42% of Registered Apprenticeship programs in North Carolina. About 10% of programs in the survey were only one year, while the longest duration of apprenticeship was six years (just over 1% of programs in the responses).

What impacts do North Carolina's Registered Apprenticeship programs have on businesses?

When asked about the general financial impacts of their apprenticeship programs, 82% of respondents said they were satisfied with their program's financial impacts to their business (55% very satisfied; 27% somewhat satisfied).

About 32% of respondents perform regular financial analysis of their apprenticeship programs. Among this group that performs regular financial analysis, 87% of respondents said they were satisfied with the apprenticeship programs' financial impacts to their business (61% very satisfied; 26% somewhat satisfied).

Many respondents noted specific benefits provided by their apprenticeship programs, increasing employees' flexibility and productivity chief among them.

Apprenticeship Programs Offer Particular Benefits to Companies	
Benefit to Company	% of Respondents
Increasing employees' skills flexibility	82%
Improving productivity	72%
Finding qualified candidates for employment	66%
Improving employee retention	65%
Reducing wage costs	34%

Some respondents provided comments about other benefits of their apprenticeship programs, ranging from organizational exposure, to training on company-specific knowledge, to tax credits. One employer mentioned using apprenticeships to create safer employees, while another specifically mentioned using apprenticeships as a form of community support and involvement.

In addition, nearly half (47%) of survey respondents said that employee turnover among journeyworkers (employees who have completed apprenticeship programs) is lower than turnover among other employees. Another 30% of respondents reported that turnover among journeyworkers is about the same as that of other workers, while about 15% of respondents were not sure.

The survey also asked questions about specific costs associated operating an apprenticeship program, though none of these cost concerns rose to the prevalence of any of the benefits mentioned earlier.

Apprenticeship Programs Create Certain Costs to Companies	
Cost to Company	% of Respondents
Long timeline of apprentice training	20%
Other companies poaching apprenticed talent	20%
Paperwork and/or reporting requirements	16%
Reduced productivity of apprentice mentors	15%
High cost of apprenticeship training	11%

Do apprenticeship programs provide a positive return-on-investment?

Among the survey respondents, the average apprenticeship program pays each apprentice about \$36,100 annually, while training costs average about \$10,500 per year per apprentice.¹ But, on average, the value created by apprentices exceeds those costs.

There were 42 survey responses in which respondents provided apprentice compensation, apprentice training costs, and the value generated by apprentices. On average, the 42 programs created an additional \$1.70 of value for every \$1.00 of investment in apprentices. The median ROI created an additional \$0.74 of value for every \$1.00 of investment. While one might assume that most of the financial return on an apprenticeship investment would be recouped by a business once an apprentice is fully trained, 86% of these 42 respondents have achieved a positive return-on-investment (ROI) by the conclusion of an average apprenticeship.

Among the respondents, 34 were able to provide sufficient data on both their apprentices and their typical journeyworker compensation and production value to calculate an ROI beyond the conclusion of apprenticeships. This data allows us to estimate a yearly financial ROI after employees have completed their apprenticeships and received journeyworker credentials. By the time the average journeyworker completed one year of full employment, 91% of respondents said they achieved a positive return on their apprenticeship investment. After two years completed by the average journeyworker, 94% of respondents had achieved a positive return on their apprenticeship investment.

¹Apprenticeship program sponsors were asked to provide average wages paid per apprentice and average training costs per apprentice within their program. Program wages and training costs were then averaged to determine the average program wage and training cost.

Many respondents were not able to answer the survey's questions about the particular financial costs and benefits associated with apprentices and journeyworkers. Nevertheless, 279 respondents were willing to answer more general questions about these costs and benefits. Without estimating specific financial values, a substantial majority of this group believed that their apprenticeship programs offer greater benefits than costs. About 85% of respondents stated that their apprenticeship programs provide a net benefit to their business.

When asked about the value created by the average journeyworker in their company, 63% of respondents said that journeyworkers create more value than comparable off-the-street hires, while 16% said journeyworkers create about the same amount of value. Eleven percent were not sure and another 7% of respondents said that journeyworkers and off-the-street hires do not fill similar roles within their companies.

Another way to approach the issue of value created by apprenticeship programs is to ask businesses about their alternatives. As part of the survey, respondents were asked the potential consequences of the elimination of their apprenticeship programs. The most frequently cited implications of this scenario were new investments in worker training and recruitment.

If your company's apprenticeship program was eliminated, what would be the implications for your business? <i>(multiple answers allowed)</i>	
Make different sorts of investments in training	47%
Increase investment in worker recruitment	42%
Eliminate a portion of our business	8%
Relocate business to another location	1%
High cost of apprenticeship training	11%

Given an opportunity to detail additional implications of eliminating apprenticeship programs, nine respondents (3%) brought up concerns about diminished ability to recruit and retain high-quality employees. One of these nine brought up the possibility of reduced morale within the company, while another expressed concern about the company's aging workforce. Three other respondents (1%) mentioned concerns about a reduction in skill among their workforce (or increased costs associated with training incumbent workers) in the event of apprenticeship program elimination. Three other respondents specifically mentioned the possibility of losing business.

Do apprenticeship programs differ between industry sectors?

The survey's responses represent 280 apprenticeship programs, 113 of which came from the Manufacturing sector and 64 of which came from the Construction sector. These programs were about the same size and duration as those of the rest of the survey population. The sponsors of these groups are also satisfied with the financial impacts of their programs at very similar rates. Again, the three groups perceive their programs to generate net benefits for their businesses at similar rates (88% of Manufacturing respondents, 84% of Construction respondents, and 81% of the remaining respondents).

Nevertheless, a few differences among these groups may be worth noting. A relatively high portion of apprenticeship sponsors in the Construction sector highlighted other companies poaching their apprenticed talent. While 30% of Construction respondents listed this cost as creating a significant burden for their company, only 15% of Manufacturing respondents and 19% of all other respondents said the same.

Average apprentice wages differ somewhat across these three groups. The average annual wage was \$34,000 among Manufacturing programs, \$36,900 among Construction programs, and \$39,100 among the remaining respondents.

While wages paid among our Manufacturing respondents were slightly lower than the other two groups, annual training costs were somewhat higher. Average annual training costs among Manufacturing programs was \$14,600, while average annual training costs were \$7,800 among Construction programs and \$7,600 among all others.

What do businesses say about pre-apprenticeships?

Pre-apprenticeships are programs that exist in partnership with Registered Apprenticeship programs. They are designed to prepare individuals with the skills to enter and succeed in Registered Apprenticeship programs. Some pre-apprenticeship programs serve a specific target population, such as veterans, while many pre-apprenticeship programs focus on youth.

Seventeen survey responses came from sponsors of pre-apprenticeship programs, about 88% of which are satisfied with their program (70.6% very satisfied; 17.6% somewhat satisfied). Again, a substantial majority of this group believes that their pre-apprenticeship programs offer greater benefits than costs. About 82% of respondents believe that their apprenticeship programs provide a net benefit to their business, while the remaining 18% were not sure.

CONCLUSIONS

Apprenticeship programs are growing rapidly in North Carolina as a viable tool for workforce development and a key strategy for addressing workforce needs of employers. The results of the North Carolina Apprenticeship survey suggest a variety of reasons to support this trend. In addition, the majority of survey respondents believe that their apprenticeship and pre-apprenticeship programs offer a positive financial ROI to their businesses. To the extent that sufficient data could be provided by survey respondents, an accounting of specific costs and benefits supports this finding.

The average Registered Apprenticeship program created \$1.70 of additional value for every \$1.00 of investment in apprentices. Among respondents that provided sufficient data for an ROI analysis, 86% have achieved a positive ROI by the conclusion of an average apprenticeship and 94% have achieved a positive ROI after two years of journeyworker employment.

The mechanisms through which apprenticeship programs offer these financial benefits are various. Registered Apprenticeships improve skill flexibility of employees, increase productivity, widen the pool of qualified candidates for employment, and improve employee retention.

In the hypothetical absence of their apprenticeship programs, respondents most frequently said that they would be forced to look for other strategies for employee training. However, those strategies are unlikely to offer the sort of nationally recognized credentials available through Registered Apprenticeship programs.

ACKNOWLEDGEMENTS

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