



THE STATE OF REGISTERED APPRENTICESHIPS IN MICHIGAN

STATE OF MICHIGAN
Department of Technology, Management & Budget
Bureau of Labor Market Information and Strategic Initiatives

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Executive Summary

Registered apprenticeships in Michigan are experiencing rapid growth.

From 2008 to 2015, over an eight-year period, Michigan gained 23,500 newly registered apprentices, an average of over 2,900 per year. Since 2016, this number has increased to nearly 6,200 new apprentices per year, with over 18,500 between 2016 and 2018.

The number of apprenticeship program completers per year has also increased since 2015. From 2016 to 2018, there were over 1,400 completers per year, up from nearly 1,100 per year prior.

Among differing demographic groups, newly registered apprentices are gradually becoming more diverse. Since 2016, new registrants who are a person of color has gone up 2.8 percentage points to 13.1 percent. The number of women has increased 4.9 percentage points to 11.3 percent in the same time frame. Furthermore, the share of veterans has inched up 0.5 percentage points to 6.7 percent.

Electricians has remained the top occupation amongst newly registered apprentices and has seen enrollment increase to over 1,000 per year since 2015. Similar increases have occurred in other large occupations such as *Construction laborers, Plumbers, pipefitters, and steamfitters, and Carpenters.*

Many of these occupations also report significant wage progression from the first to last year of an apprenticeship. The median first-year wage for 2018 newly registered apprentices was \$15.11. For 2018 completers, the median last year of apprenticeship wage was \$26.57.

For the first time, administrative wage records were linked with apprenticeship data. This creates an opportunity to analyze wage progression one year after leaving an apprenticeship program for 2017 completers. The wages earned by these completers were typically much higher than what they were in the last year of their apprenticeship and greater than the typical statewide starting wage. For these completers of apprenticeship programs, the median wage one-year post completion was \$33.59.

Traditional apprenticeship industries, which are those found in Construction and Manufacturing, make up a significant portion of apprentices across the state. However, this share has decreased slightly since 2016. This is partly because nontraditional industries, such as Energy and Retail trade, have claimed a higher share of newly registered apprentices. From 2016 to 2018, newly registered nontraditional apprenticeships made up 22.2 percent of the total, marking a 5 percentage point increase from the 2008–2015 period.



Introduction

By providing both classroom and on-the-job training, apprenticeship programs serve a vital role by preparing workers for critical occupations in the Michigan labor market. This report on apprenticeships in Michigan, which details demographic, occupation, wage, industry, and program information, builds on a previous report published by the Bureau of Labor Market Information and Strategic Initiatives (LMISI) in 2016. Similar to the analysis from three years ago, this report continues to present an optimistic outlook for apprenticeships in Michigan. The number of apprentices and programs are growing at an unprecedented rate, the diversity of people engaged in these programs is increasing, and the benefits of registered apprenticeship programs continue to accrue for workers and employers alike.

Apprenticeships are different from other types of work-based training because apprentices are hired by employers and receive a paycheck from the first day of work, with increasing wages over time. The programs can last from one to six years and focus on connecting education and work simultaneously. Every graduate of a registered apprenticeship program receives a nationally recognized credential: a portable qualification that

signifies to employers that apprentices are fully trained for the job. These programs are additionally beneficial to employers because they help businesses develop a highly skilled workforce and often are found to lower the cost of recruitment, reduce turnover rates, create a pipeline of qualified workers, and increase productivity. According to the U.S. Department of Labor (DOL), 91 percent of apprentices who complete an apprenticeship are still employed nine months later.¹

It is important to note, however, that not all apprenticeships are registered apprenticeships due to the voluntary registration of apprenticeship programs. Thus, this report does not represent all apprenticeships in Michigan.

¹ Registered Apprenticeship Partners Information Management Data System (RAPIDS), Office of Apprenticeship, U.S. Department of Labor

Registered apprenticeships are “innovative work-based learning and postsecondary earn-and-learn models that meet national standards for registration with the DOL (or federally recognized State Apprenticeships Agencies).” These standards include evidence of:

Source: U.S. Department of Labor (DOL)

1. Business involvement
2. Structured on-the-job training
3. Related instruction
4. Rewards for skill gains
5. National occupational credential



Data and Methodology

This study uses data from the Registered Apprenticeship Partners Information Management Data System (RAPIDS), which is managed by the DOL Office of Apprenticeship (OA). The RAPIDS database is the largest one of its kind for tabulating and analyzing apprenticeship programs, but again it is not all inclusive, since not all apprenticeships are registered apprenticeships. This analysis focuses on apprentices and their sponsoring programs. “New” apprentices refer to those who have registered during the fiscal year of analysis, using the begin date rather than the registration date. When the OA counts “active” apprentices, they include those who are registered, suspended, and reinstated. Similarly, active apprenticeship programs include registered, suspended, and reinstated programs, which must have had activity in the last 12 months. Finally, analyzing “completers” requires looking at those whose completion occurred in the fiscal year of analysis. In each of these cases, we follow the methodology set out by the OA in order to achieve comparable results.

For the purposes of this report, two key time periods were identified for analysis. The first incorporates the eight-year

period from 2008 to 2015 and the latter consists of the shorter three-year period from 2016 to 2018 (data for 2019 was not available at the time of the completion of this report). These time periods were chosen as there was a significant increase in resources for registered apprenticeships in Michigan beginning in 2016, including a number of discretionary and competitive grants as well as the establishment of Apprenticeship Success Coordinators and the Apprenticeship Learning Network. Evaluating these two time periods provides insights into the potential role of these resources in shaping registered apprenticeship in Michigan.

Finally, a new addition to this report is the inclusion of administrative wage records to measure the employment outcomes of registered apprentices. While it is known that wage progression throughout an apprenticeship is a key component, measuring the earnings of apprentices after program completion is crucial to understanding the role of registered apprenticeship in the Michigan labor market. These wage records were linked with 2017 apprenticeship completer data to allow for the analysis of earnings one year after completion of a program.

New apprentices refer to those who have registered during the fiscal year of analysis, using the begin date rather than the registration date.

Active apprentices include those who are registered, suspended, and reinstated.

Completers are those whose completion occurred in the fiscal year of analysis.

FIGURE 1: NEW REGISTERED APPRENTICES BY YEAR, MICHIGAN

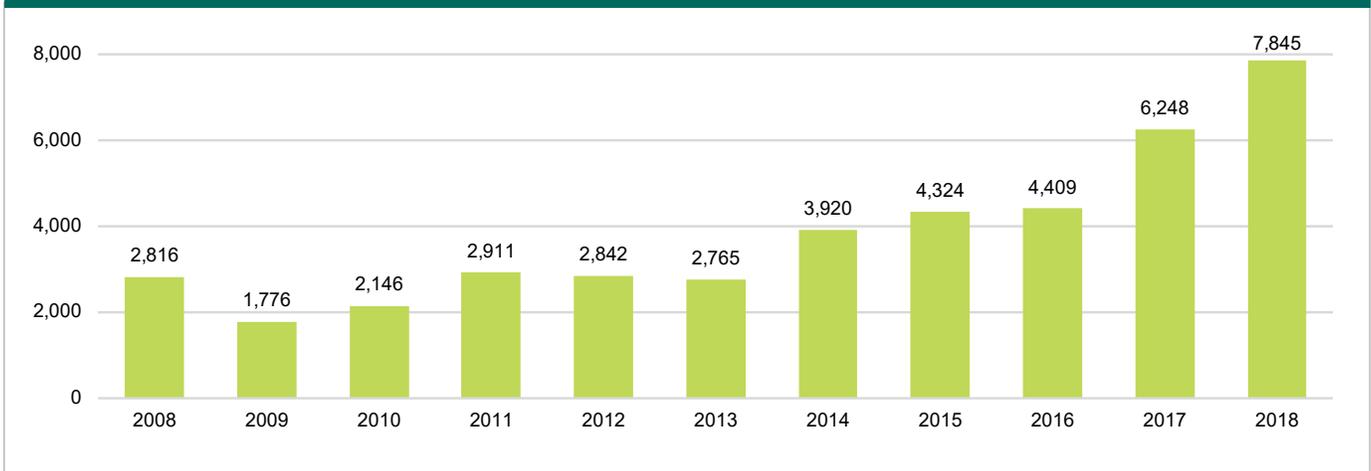
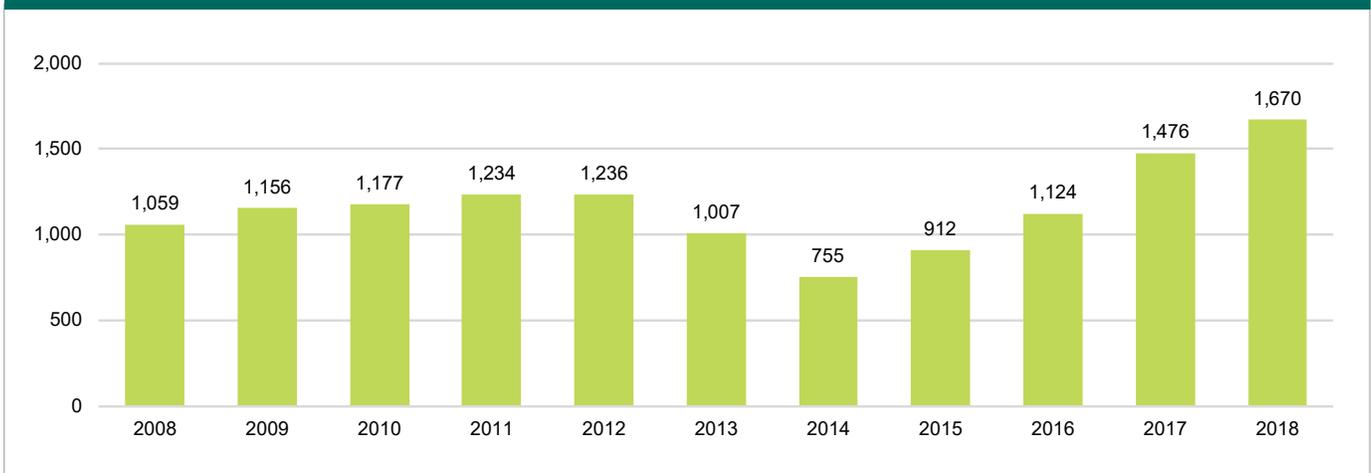


FIGURE 2: APPRENTICESHIP COMPLETERS BY YEAR, MICHIGAN



Source: Registered Apprenticeship Partners Information Management Data System (RAPIDS), Office of Apprenticeship, U.S. Department of Labor

Current State of Apprenticeships

In 2018, there were nearly 18,900 active apprentices in more than 1,100 programs across the state of Michigan. Most of these apprentices fall into traditional apprenticeship industries, Manufacturing and Construction, while the rest are in nontraditional apprenticeship industries such as Retail trade, Health care and social assistance, and Energy.

To date, the largest cohort of newly registered apprentices began their programs in 2018, with over 7,800 new apprentices. In fact, the average number of new apprentices per year since 2016 (6,200) has more than doubled the rate from 2008 to 2015 (2,900). Similarly, the number of completers also has been on the rise in the past three years, while not as dramatically. From 2008 to 2015, nearly 1,100 apprentices completed their programs. This number has jumped to just over 1,400 in the latter period.

On top of the over 1,100 programs in the state in 2018, 120 of these were new programs. Many of these new programs were in the traditional apprenticeship industries of Manufacturing and Construction. Furthermore, West Michigan was home to the largest share of programs in the state with nearly 29 percent. The Detroit Metro and Southwest Michigan regions followed at 19.6 percent and 14 percent, respectively. On the national scale, Michigan is a leader in registered apprenticeships. Michigan ranks fourth nationally both in terms of the number of 2018 active apprentices and newly registered apprentices and 13th in terms of 2018 apprenticeship completers. The state also is home to the fifth most active apprenticeship programs in the nation.

Demographics

When analyzing apprentices in the state of Michigan, it is important to note the differences amongst demographic groups. This allows for identification of areas of progress and areas of opportunity for improvement.

Gender

From 2008 to 2015, 93.6 percent of newly registered apprentices were men, which is likely the result of gender makeup of the traditional apprenticeship industries of Construction and Manufacturing. However, the period after (2016–2018) has seen an uptick in the number of new female registered apprentices; the share of females increased from 6.4 percent to 11.3 percent between the two periods, marking a significant increase.

Most of the spikes in new female registered apprentices are due to the emergence of new programs. Such examples include 2014 and 2018 when these shares climbed to 14.6 percent and 20.7 percent, respectively. This was mainly due to programs focused on *First-line supervisors of retail sales workers*, which were large programs with a share of new female registered apprentices at 64.7 percent and 76.7 percent, respectively. However, even in traditional apprenticeship occupations, such as *Electricians*, the share of females registering has increased slightly. This share increased from 2.2 percent between 2008 and 2015 to 3.1 percent for the 2016–2018 period.

Furthermore, the median age for newly registered female apprentices was 30.3 from 2008 to 2018. During the same period, the median age for men was younger at 27.5. Overall, the median age for all new apprentices was 28.7.

Race

Only 10.3 percent of new apprentices identified as a person of color from 2008 to 2015. The largest of this group was blacks at 8.7 percent. From 2016 to 2018, new apprentices who are a person of color made up 13.1 percent, with blacks making up 11 percent.

It is important to note a large share of unknown racial backgrounds, however, through the entirety of the time periods. In 2014, just over 35 percent of all newly registered apprentices had an unknown racial profile. This number has since decreased, down to 16.2 percent in 2018.

Education

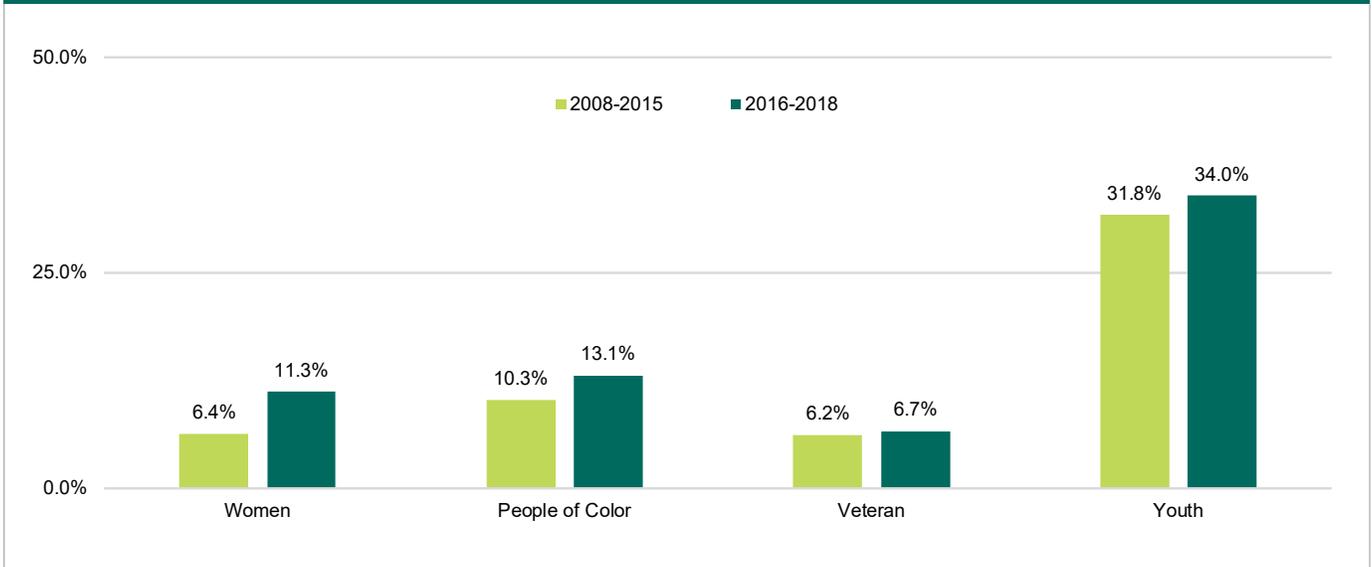
Among new registrants from 2008 to 2018, only 11.7 percent had postsecondary or technical training. Meanwhile, most newly registered apprentices were high school graduates (70.9 percent). Those with a GED comprised 6.6 percent, and those with less than a high school education composed 3.2 percent.

While most newly registered apprentices were men, a similar share of men and women were high school graduates (both roughly 71 percent). A slightly larger share of men (11.8 percent) have received postsecondary or technical training than women (10.2 percent) while also displaying higher shares in less than a high school education and GED. There was a significantly higher share of women with unknown educational background.

When broken down by race, a much larger share of white newly registered apprentices earned a high school diploma (76 percent) than any other race. Only 67 percent of black newly registered apprentices and 69.6 percent of all other races are a high school graduate.

A much higher share of minorities obtained a GED compared to that of white newly registered apprentices (6.3 percent). New black registered apprentices have a share of 12.4 percent while all other races are at 11.1 percent. Newly registered black apprentices have the highest share with postsecondary or technical training at 14.5 percent.

FIGURE 3: CHANGE IN APPRENTICE DEMOGRAPHICS, MICHIGAN



Source: Registered Apprenticeship Partners Information Management Data System (RAPIDS), Office of Apprenticeship, U.S. Department of Labor

Youth Apprentices

Youth apprentices make up a sizable portion of the apprentice population. For this study, an apprentice is considered part of this group if they were age 24 or younger at the time of enrollment in an apprenticeship program. This number has varied slightly among newly registered apprentices from 2008 to 2018, with a share during this period of 32.8 percent. The share has seen a low point of 27.6 percent in 2011 and a high mark of 36.5 percent in 2014.

Overall, this share has increased slightly in the latter part of the period of the study. From 2008 to 2015, this share sat at 31.8 percent. This has gone up to 34 percent in the latter period, as the raw number of youth apprentices has nearly matched that of the earlier timeframe.

Veteran Status

An important group among apprentices is the veteran population. This group is a critical part of the state's labor force. From 2008 to 2015, this group made up 6.2 percent of all newly registered apprentices. In 2016 and 2017, this share increased to 7.9 percent and 7.4 percent, respectively. This number dipped to 5.4 percent in 2018, however. In total, since 2016, veterans made up 6.7 percent of newly registered apprentices.

Some of these gains are offset by dips in larger occupations. Among *Electricians*, the veteran share of newly registered apprentices has declined in the past few years. From 2008 to 2015, 5.9 percent of all new registrants were veterans. This share dropped to 3.8 percent from 2016 to 2018. This is similar to several other occupations, such as *Construction laborers*, where the veteran share dipped from 5.5 percent to 1.6 percent between the time frames. These slight declines in veteran representation among large occupations could be due to the rapid of expansion of these programs.



Occupations

Even though these apprentices are mostly spread throughout a select few occupations, there are a wide variety of jobs that have an apprenticeship program associated with them.

In total, there were 18,900 active apprentices in 2018. *Electricians* had the highest share of active apprentices at 22 percent (4,200). *Construction laborers* made up the second highest share with 15.1 percent (2,900), followed by *Carpenters* (8.8 percent) and *Plumbers, pipefitters, and steamfitters* (7.3 percent).

Among the 12,600 apprenticeship completers from 2008 to 2018, 20.8 percent were *Electricians* (2,600). *Plumbers, pipefitters, and steamfitters* clocked in at 12.3 percent (1,500), followed by *Tool and die makers* (6.2 percent) and *Carpenters* (5.9 percent).

Newly registered apprentices followed a similar trend among top occupations as well, with *Electricians* (22.6 percent) and *Construction laborers* (16.1 percent) making up the largest shares.

Among top occupations, *First-line supervisors of retail sales* workers recorded no new apprentices for seven years during

the time period. The bulk of the newly registered apprentices in this occupation was instead limited to two years, 2014 and 2018, where the occupation welcomed 550 and 651 newcomers, respectively.

Two other occupations have seen a dramatic rise in newly registered apprentices within the past few years. *Engineering technologists and technicians* saw an uptick of 169 new apprentices from 2015 to 2018 after having no apprentices in prior years. *Medical assistants* grew by 106 in 2017 and 2018 after registering only two in previous years.

A rise in new apprentices within the past few years across several occupations is a commonality among the smaller occupations. This is especially true as the total number of apprentices has increased over the past few years after seeing a dip in the early to mid-2010s.

Figures 4 and 5 illustrate the change over time in terms of new registrants and completers for the five largest occupations. *Electricians* hold the top spot in both categories, but it is noticeable that while *Construction laborers* have many new apprentices, it is not among the top five occupations in terms of completers. *Millwrights* jump up to take the fifth spot.

FIGURE 4: NEW REGISTERED APPRENTICES BY OCCUPATION, MICHIGAN

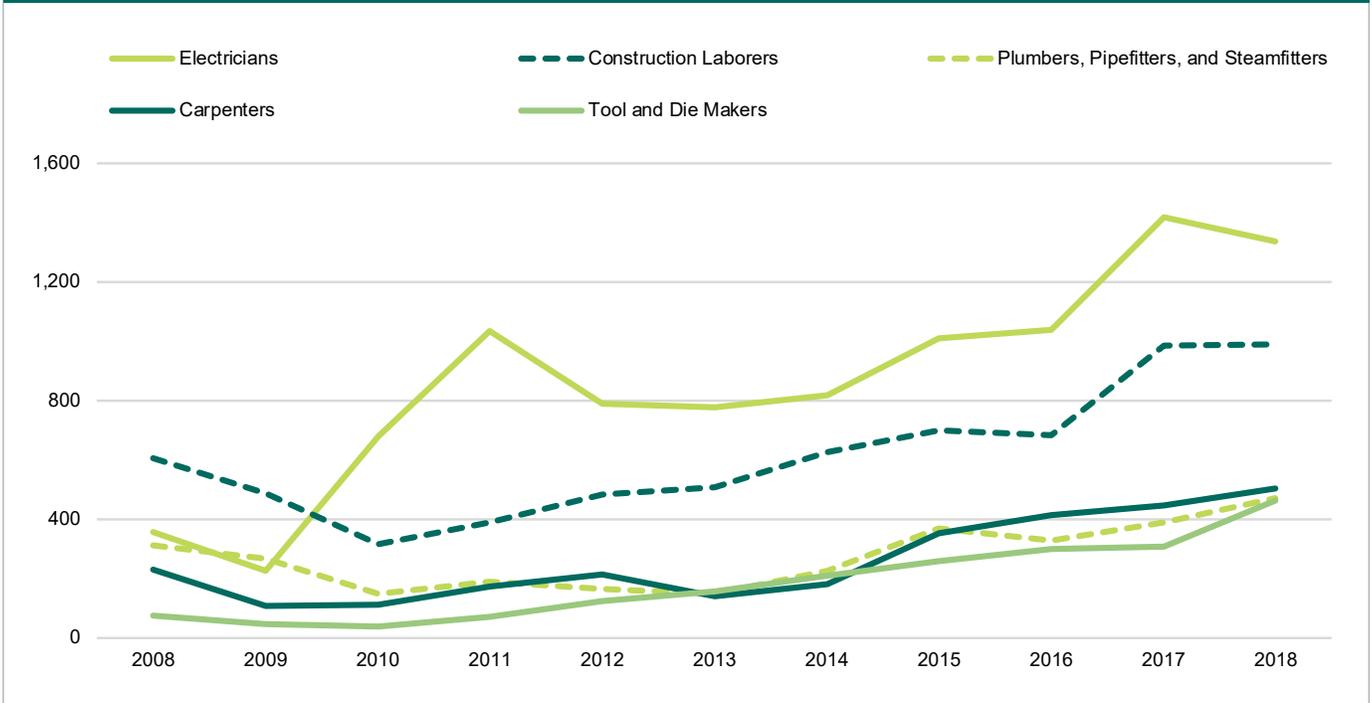
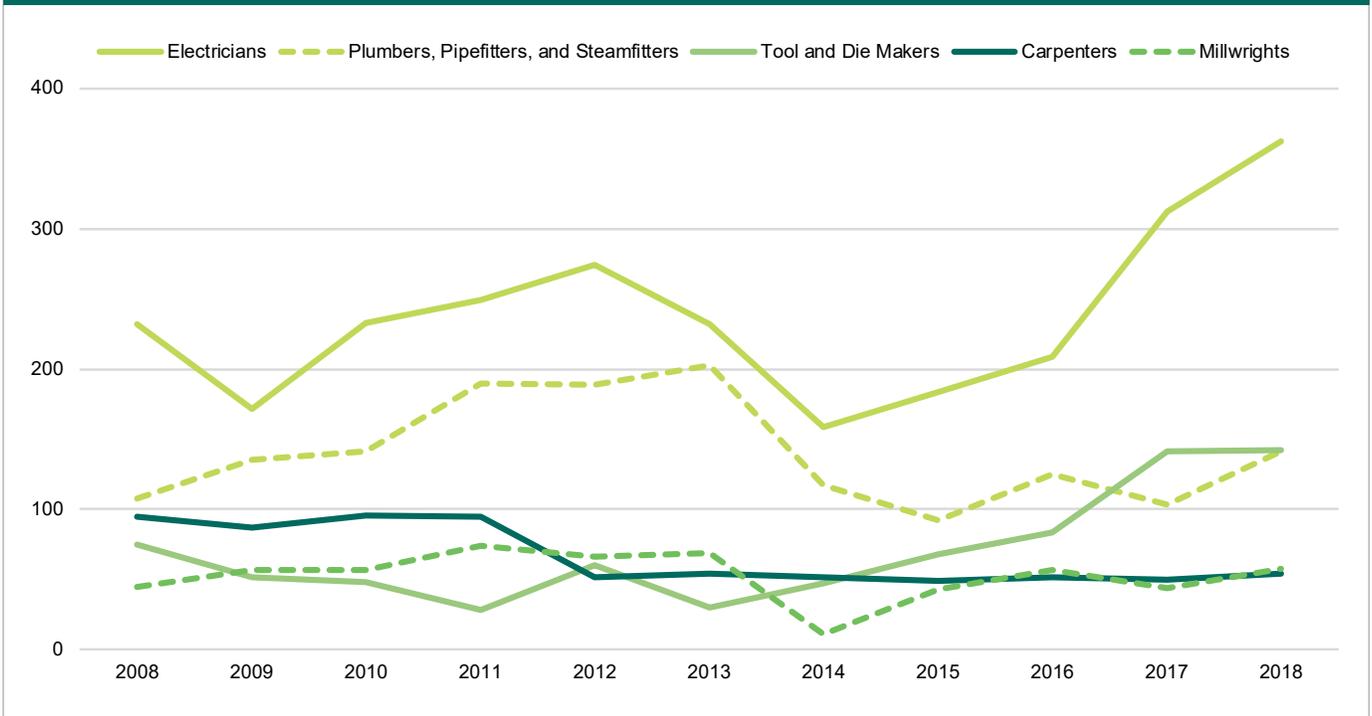


FIGURE 5: APPRENTICESHIP COMPLETERS, MICHIGAN



Source: Registered Apprenticeship Partners Information Management Data System (RAPIDS), Office of Apprenticeship, U.S. Department of Labor

Completion Rates

In addition to the number of completers, the completion rates of registered apprentices vary from one occupation to the next. Rates are measured as the percentage of new apprentices who complete their programs within the expected timeframe, measured as the length of the program plus a 50 percent extension. For example, apprentices in a four-year program are given six years to complete. Additionally, completion rates are measured using the most recent apprentice cohort for which full data is available. For example, given a six-year completion window, the most recent cohort of apprentices in a four-year program originally would have registered in 2012.

Among all apprenticeship occupations with at least 10 program completers in the most recent cohort, *Computer programmers* had a 100 percent completion rate, as shown in Figure 6. *Model makers, metal and plastic* was not far behind at 93.9 percent. *Millwrights* had the third highest completion rate at 86.1 percent and led all top occupations (in terms of number of program completers). *Electricians* and *Carpenters* had the lowest program completion rates among top occupations at 38.9 percent and 37.9 percent, respectively. These rates are slightly less than the 41.2 percent completion rate for all apprenticeship occupations.

FIGURE 6: APPRENTICESHIP PROGRAMS WITH THE HIGHEST COMPLETION RATES, MICHIGAN

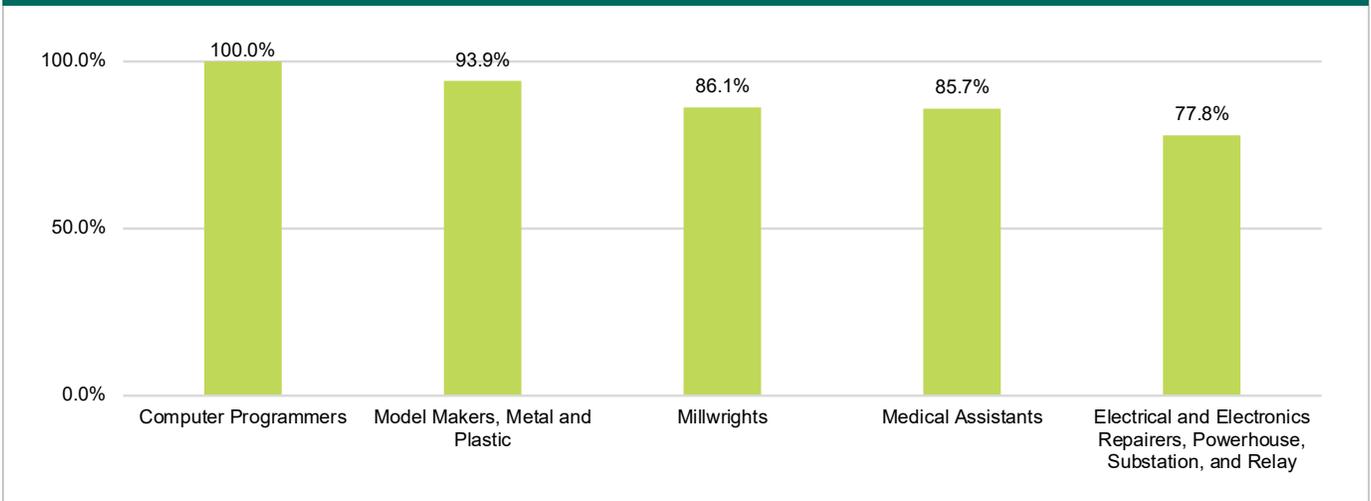
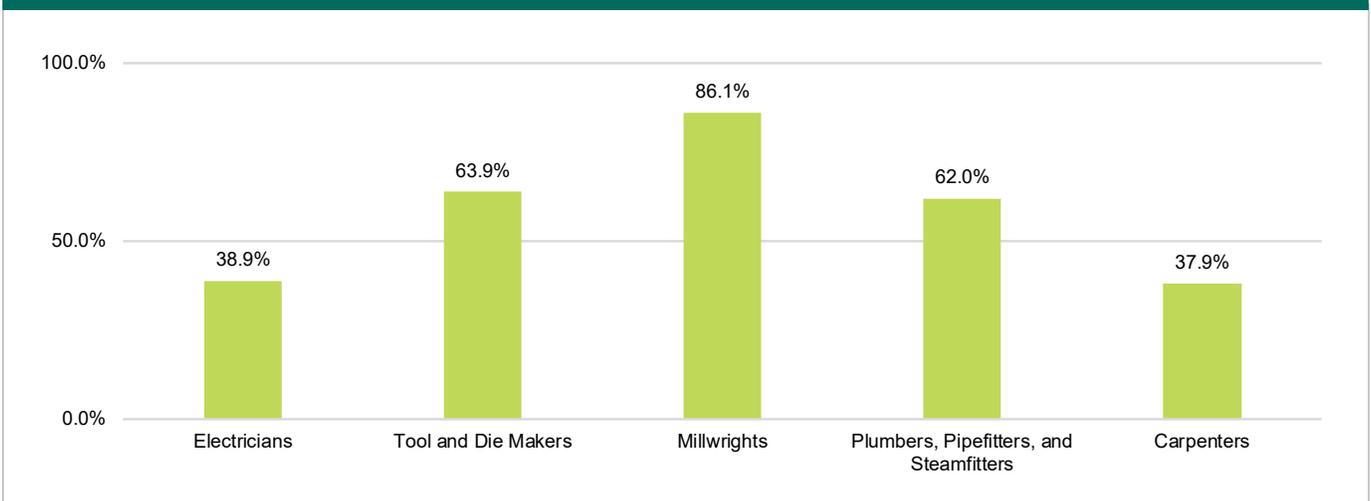
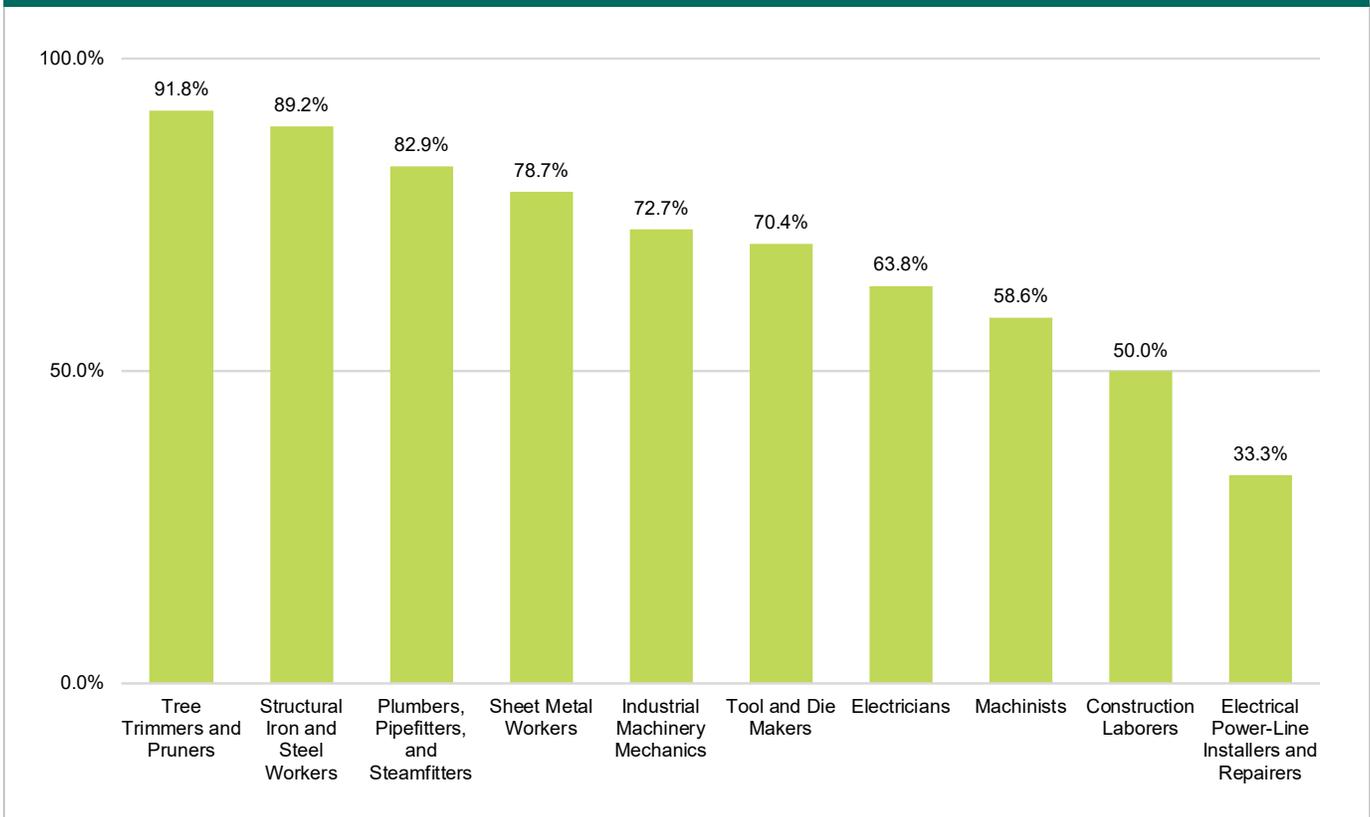


FIGURE 7: COMPLETION RATES FOR TOP OCCUPATIONS, MICHIGAN



Source: Registered Apprenticeship Partners Information Management Data System (RAPIDS), Office of Apprenticeship, U.S. Department of Labor

FIGURE 8: PERCENT EMPLOYED ONE YEAR AFTER COMPLETING AN APPRENTICESHIP, MICHIGAN



Source: Registered Apprenticeship Partners Information Management Data System (RAPIDS), Office of Apprenticeship, U.S. Department of Labor; Michigan Department of Labor and Economic Opportunity

Employment Outcomes

Administrative wage records allow for a variety of analysis on apprenticeship completers. These records, for example, can identify the percent employed one year after program completion, helping to improve understanding of apprenticeship program effectiveness.

Electrical and electronics repairers, powerhouse, substation, and relay displayed a post-completion employment percentage of 100 percent. However, the sample size on this occupation is relatively small, with only 14 completers in 2017. Other high-performing occupations included *Tree trimmers and pruners* (91.8 percent), *Medical assistants* (91.7 percent), and *Structural iron and steel workers* (89.2 percent), as shown in Figure 8.

Larger occupations tended to display lower employment percentages. For *Electricians*, 63.8 percent were employed one year after completion. *Tool and die makers* were at 70.4 percent, and *Plumbers, pipefitters, and steamfitters* had a rate of 82.9 percent. These rates were greater than that of other occupations such as *Electrical power-line installers and repairers* (33.3 percent), *Construction laborers* (50 percent), and *Machinists* (58.6 percent).

Of note, these rates only encompass Michigan administrative wage records. This means that if an apprenticeship program completer were to find work outside of the state, they are not counted among those who are employed one year after completing. Furthermore, those who find work as a self-employed worker are not included in the records.

A key component of a registered apprenticeship is wage progression from the first to the last year of a program. Following that, a key outcome measure is a look at how completers progress their wages after completion of an apprenticeship. This progression can be compared to those across the state in the same occupation as well.

In 2018, the median hourly first-year wage for a newly registered apprentice was \$15.11. For 2018 completers, the median last-year wage sat at \$26.57. The median wage in the last year for all 2018 completers was significantly greater than that of the statewide median wage of \$18.08 in 2018.

For the purposes of this report, 2017 completers were identified one year after completion and occupations with

FIGURE 9: EARNINGS ONE YEAR AFTER COMPLETING AN APPRENTICESHIP, MICHIGAN



Source: Registered Apprenticeship Partners Information Management Data System (RAPIDS), Office of Apprenticeship, U.S. Department of Labor; Michigan Department of Labor and Economic Opportunity; 2018 Occupational Employment Statistics (OES), Bureau of Labor Market Information and Strategic Initiatives, Michigan Department of Technology, Management & Budget

fewer than 10 completers employed were suppressed. For example, wage data was suppressed for occupations such as *Carpenters* and *Pharmacy technicians* because of the insufficient number of those employed. Among 2017 completers, the median annual wage one year after completion—the equivalent of a starting wage in any non-apprenticed occupation—was \$33.59. This was just shy of three times the overall 25th percentile wage (which is a proxy for starting wages across all occupations) in Michigan of \$12.06.

The difference in starting, exit, and post-apprenticeship wages amongst top occupations was also significant. *Electricians* had a median starting wage of \$13.55, as shown in Figure 9. In the last year of their apprenticeship, these apprentices were earning \$27.24. One year after completion, this wage spiked to \$36.17, an increase of \$8.43. Compared to the starting wage for *Electricians* across the state, the median starting wage was \$20.69, \$15.48 less than that of 2017 completers in the occupation.

Similarly, *Plumbers, pipefitters, and steamfitters* displayed similar progression for 2017 completers. These apprentices earned a median start of apprenticeship wage of \$15.73, progressing to an exit wage of \$26.16. One year after completion, completers earned a median wage of \$40.04, which was \$22.13 greater than that of the statewide median starting wage.

The largest difference between one-year-after-completion median wages and statewide median wages among top occupations was *Electrical power-line installers and repairers*. Upon one year after completion, the median wage was \$59.66. Comparatively, the statewide median wage was \$36.59.

Traditional vs. Nontraditional Industries

When people think of registered apprenticeships, they often think of Construction and Manufacturing. Because of this, such apprenticeships are often referred to as traditional apprenticeships. For the purposes of this report, apprenticeship programs in all other industry sectors are identified as nontraditional apprenticeships. Nontraditional apprenticeships include industries such as Retail trade, Educational services, and Health care and social assistance. While these fields are important, together they make up a smaller share of apprentices.

Traditional Apprentices

In total there are roughly 18,900 active apprentices in Michigan. Construction apprentices make up 59 percent of this total, on par with what is seen among apprenticeship completers. Manufacturing trails at 20 percent, and together the traditional industries make up nearly 79 percent of all active apprentices.

Since 2008, there have been just over 42,000 newly registered apprentices. Of this quantity, nearly 81 percent registered in traditional apprenticeships. This share has varied through the period as some industries have created new programs but has for the most part been above 80 percent. In fact, only three years have seen it dip below that figure. In 2010, 75 percent of newly registered apprentices enrolled in traditional apprenticeships. This share dipped to 74.1 percent in 2014 and then reached its lowest point of the time period in 2018 with a share of 67.4 percent. On the other end, the share of traditional apprentices peaked in 2009 claiming 91.2 percent of newly registered apprentices.

From 2008 to 2015, traditional apprenticeships claimed 83 percent of newly registered apprentices. Comparatively since 2016, this share has dropped to 77.8 percent as more nontraditional apprenticeships have emerged.

Those completing traditional programs were not much different either. Of the 12,800 completers since 2008, 79.6 percent completed apprenticeships in traditional programs. This share has never dropped below 72 percent over the past 11 years. From 2008 to 2015, traditional apprenticeship completers made up 80.3 percent of the total. From 2016 to 2018, that share has dropped to 78.2 percent.

Since 2008, the Construction industry graduates the most apprentices statewide. This industry has been responsible for 58 percent (7,400) of these completers. Manufacturing follows with 22 percent (2,800).

Nontraditional Apprentices

Among nontraditional apprenticeships, the Energy sector made up the largest share of newly registered apprenticeships from 2008 to 2018. This industry was responsible for 28.3 percent of all nontraditional newly registered apprentices. Retail trade is close behind at 25.4 percent over the same period.

In 2014 and 2018, dramatic increases in new apprentices were realized in Retail trade, with 680 and 1,040 new apprentices, respectively. This is compared to having fewer than 100 new additions in each of the other years. Also, having not recorded more than 10 new registered apprentices since 2008, Health care and social assistance added 590 new apprentices in 2018.

The industry of Educational services also has seen a steady climb since 2016, having not dipped below 100 new apprentices each year. From 2008 to 2015, the industry only had more than 80 new apprentices once.

Among completers, there has been an uptick in the industry of Administrative and support and waste management and remediation services, as well as Educational services. The former has seen the number of completers more than quadruple (from 19 to 86) between the periods of 2008 to 2015 and 2016 to 2018. Similarly, the latter has seen an increase of roughly twice as many completers per year between the periods.

Retail trade is by far the largest industry among nontraditional completers, responsible for 38.8 percent of the share. This was mainly due to the large spikes in newly registered apprentices in 2014 and 2018. Energy and Health care and social assistance follow at 22.5 percent and 13.4 percent of the share, respectively.

FIGURE 10: APPRENTICESHIP COMPLETERS BY SELECT INDUSTRIES, 2008–2018, MICHIGAN

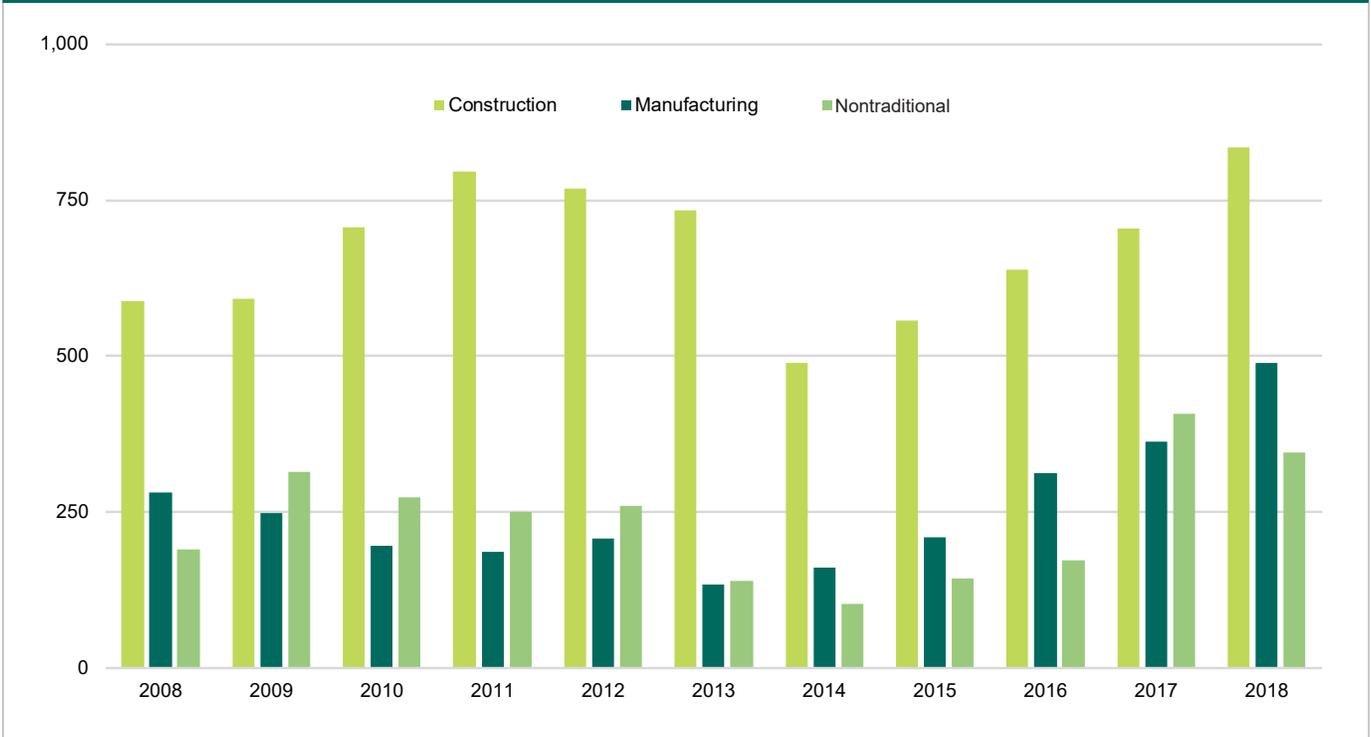
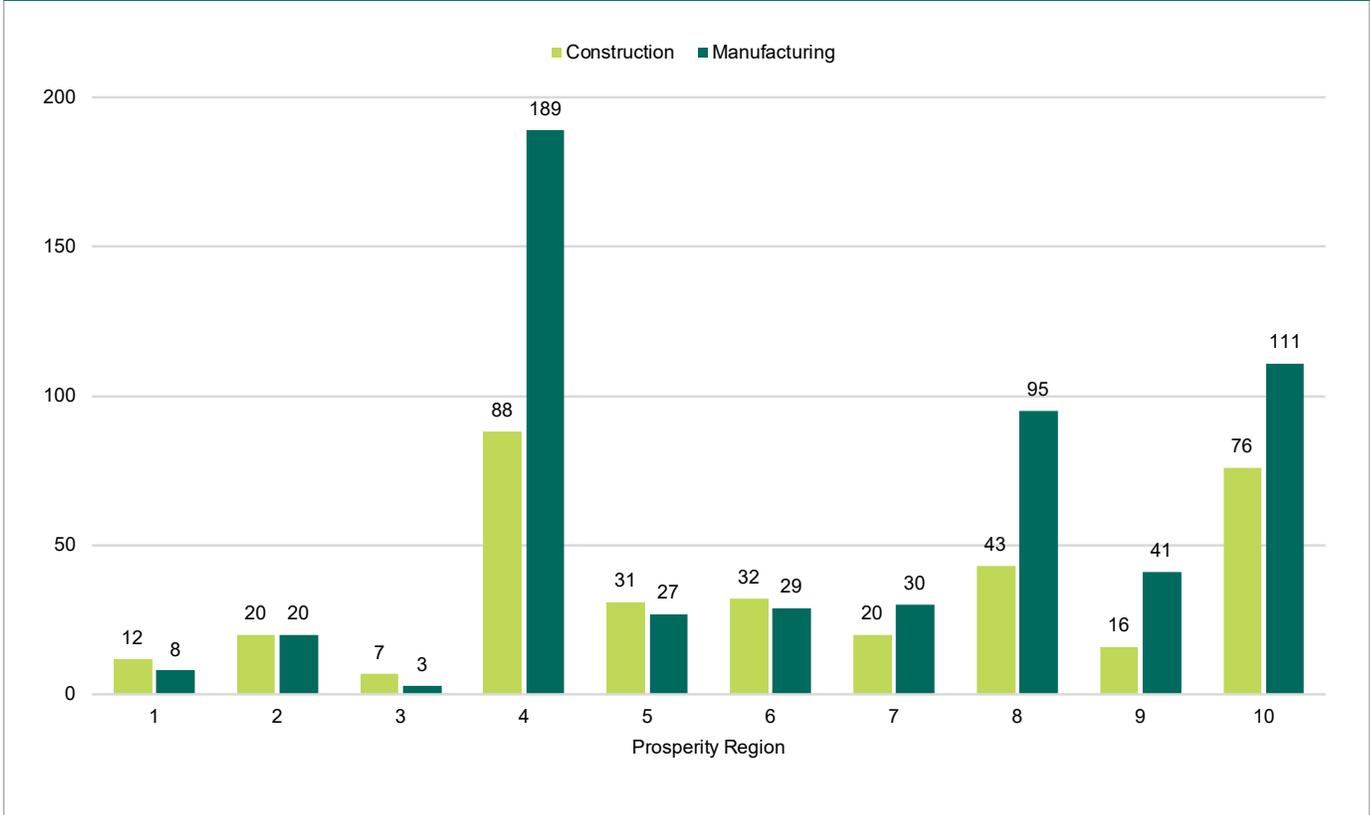


FIGURE 11: SHARE OF APPRENTICESHIP COMPLETERS, 2008–2018, MICHIGAN



Source: Registered Apprenticeship Partners Information Management Data System (RAPIDS), Office of Apprenticeship, U.S. Department of Labor

FIGURE 12: MANUFACTURING AND CONSTRUCTION PROGRAMS BY REGION, MICHIGAN



Source: Registered Apprenticeship Partners Information Management Data System (RAPIDS), Office of Apprenticeship, U.S. Department of Labor

Programs Across the State

There were 120 new registered apprenticeship programs across Michigan in 2018, bringing the total number of active apprenticeship programs in 2018 to 1,106. As might be expected, the industries of Construction and Manufacturing made up most of these active programs at 50.5 percent and 31.5 percent respectively. No other industry sector had a share of active programs of 2 percent or greater.

However, the share of smaller industry sectors grew slightly since 2016. Both Health care and social assistance and Educational services were responsible for 2.7 percent of new programs, adding eight over the period. Wholesale trade also added seven new programs, making up 2.4 percent of new programs.

Across all apprenticeships, the West Michigan Prosperity Region housed the largest share of active programs in the state in 2018. Nearly 29 percent of active programs were contained in this region. The Detroit Metro and Southwest regions trailed behind at 19.6 and 14 percent, respectively. On the opposite end of the spectrum, the Northeast and Upper Peninsula regions had the fewest programs at 1.1 percent and 2.2 percent, respectively.

The share of traditional apprenticeships varied across the state. The East and East Central regions of the state had the highest share of these industries at 95.3 percent and 95.1 percent, respectively. Only the South Central region had a share of less than 80 percent, checking in at 76.9 percent. As shown below, Manufacturing contained the most programs in most of the regions of Michigan. This is noteworthy as stated previously, Construction has the largest number of active apprentices in the state. In the second chart, it is noteworthy that while the Detroit Metro region is second in the state in terms of number of programs, it houses the largest number of apprentices. Meanwhile, West Michigan has the third most apprentices even though it is the leader in programs in the state.

Among new programs, growth closely followed the distribution of active programs. West Michigan contributed 31.5 percent of all new programs in since 2016. This was followed by the Detroit Metro and Southwest regions at 20.9 percent and 17.1 percent, respectively.

FIGURE 13: ACTIVE APPRENTICESHIP PROGRAMS BY REGION, 2018, MICHIGAN

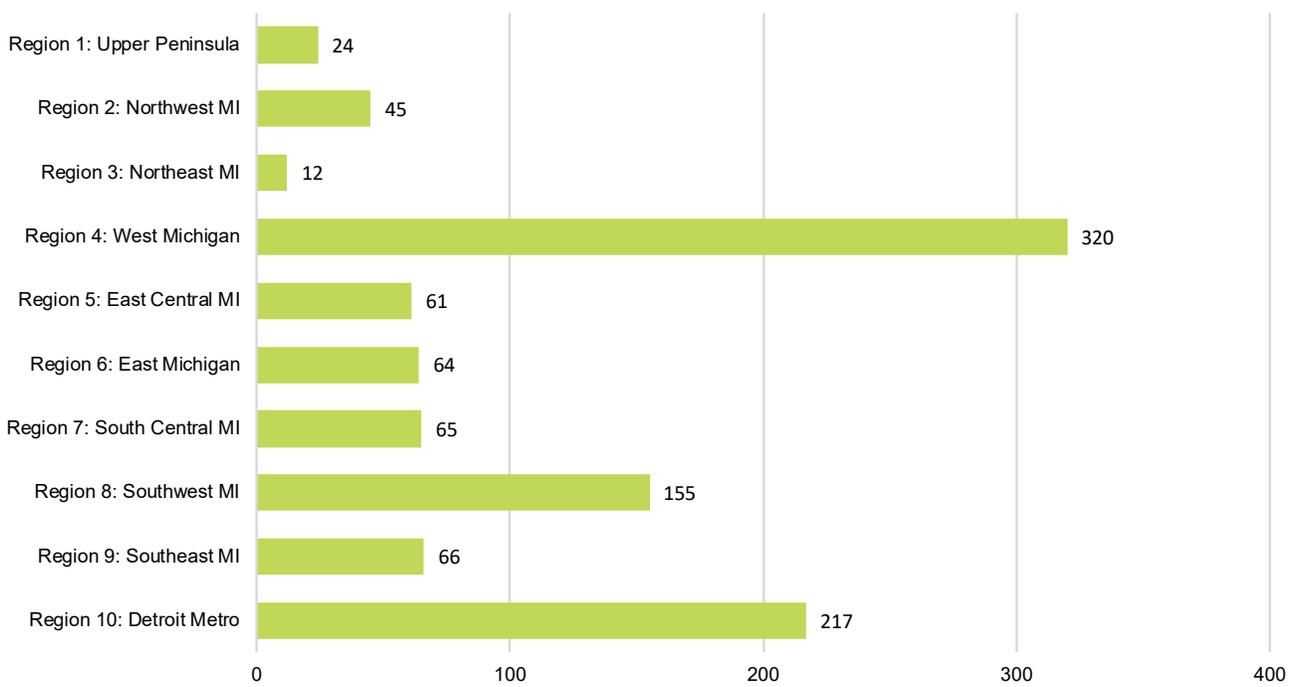
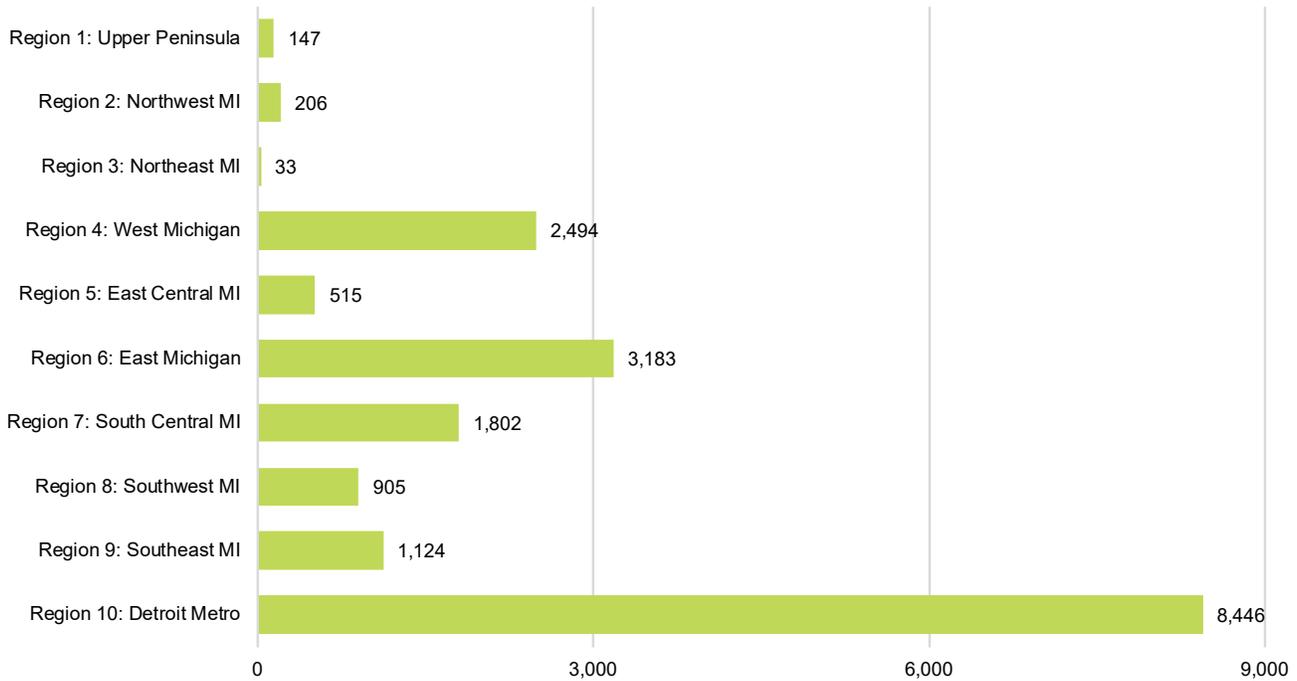


FIGURE 14: ACTIVE APPRENTICES BY REGION, 2018, MICHIGAN



Source: Registered Apprenticeship Partners Information Management Data System (RAPIDS), Office of Apprenticeship, U.S. Department of Labor



Conclusion

The addition of administrative wage records in this report has allowed for significant analysis on the employment outcomes of apprenticeship completers in the Michigan labor market. Coupling this with new data from the time after significant progress was made in the number of resources for Michigan apprenticeships makes for a compelling story regarding the importance of these programs to the economy.

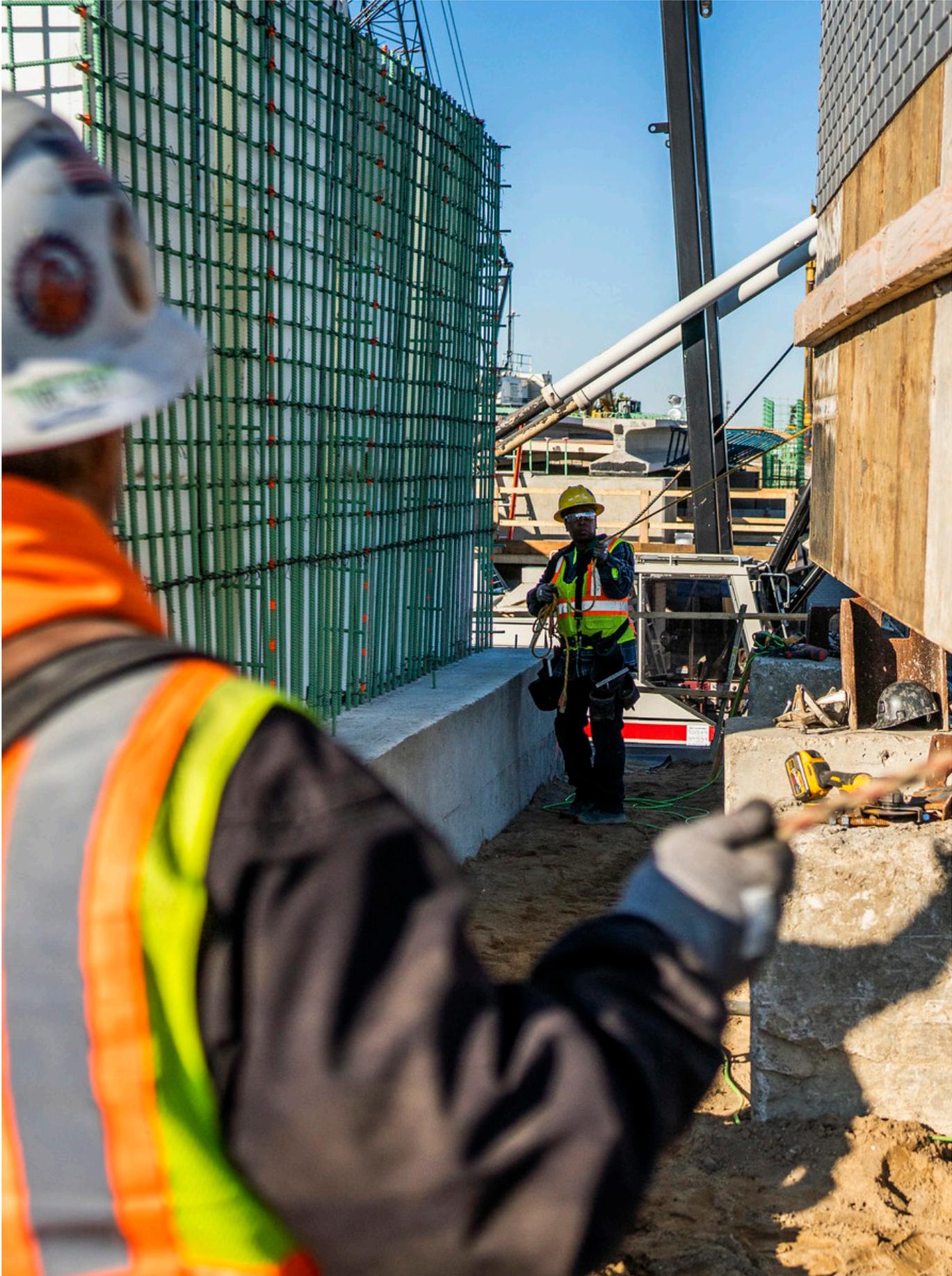
While the traditional apprenticeship industries of Construction and Manufacturing make up the brunt of apprentices in Michigan, nontraditional apprenticeships industries are growing. From 2008 to 2015, these nontraditional industries made up only 17 percent of newly registered apprentices. Since 2016, this share has increased to 22.2 percent, and it reached 32.6 percent in 2018. This indicates a wide variety of apprenticeship opportunities across Michigan.

Furthermore, the demographic makeup of these newly registered apprentices is becoming more diverse. Between the two periods, the share of women, people of color, youth,

and veterans have all increased. This is partly due to the exciting opportunities that nontraditional apprenticeships offer. Lastly, apprenticeships have a positive effect in terms of earnings and provide ample opportunities for those who choose to participate. They offer significant wage progression throughout the program, and this progression, as shown earlier, carries over into post-apprenticeship earnings. Most programs also boast high employment outcomes after completion, which bodes well for those who may be struggling to find work.



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