

# Strategies to Improve Apprenticeship Completion: Insights from Programs and Apprentices

## Issue Brief

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Apprenticeships are a promising workforce development pathway for employers who are looking for proven ways to grow their workforce. Completion rates for apprenticeship programs vary widely, however, with a report prepared for the U.S. Department of Labor finding a completion rate of 59 percent for registered apprentices from 2019 to 2022 (Bruno and Manzo 2025). This means that more than 40 percent of apprentices did not complete their training and potentially did not obtain an industry-recognized credential, limiting the potential return on investment for employers and apprentices. Understanding what helps apprentices persist in their programs and succeed is essential for improving program design, program quality, and ultimately strengthening the pipeline of skilled workers. This brief synthesizes learnings from interviews with apprenticeship program administrators in the information technology, electrical, advanced manufacturing, and healthcare sectors as well as apprentices from a range of industries. The brief highlights how programs and employers can improve their apprenticeship completion rates with tangible examples from the field.

We interviewed five program administrators that function as sponsors, intermediaries, or related technical instruction (RTI) providers for registered apprenticeship programs. Recommendations emerged from these conversations for how apprenticeship program partners can better serve apprentices to improve retention and completion.

We also spoke with nine apprentices from a range of industries who completed or were about to complete their apprenticeships and who were able to provide important perspective on what helped them stay in their programs. Apprenticeship program partners, especially employers, may consider how the recommended strategies and practices that follow could help them improve retention and completion rates in their apprenticeship programs.

### Key learnings in this brief

- Effectively communicate program goals, expectations, and wage progressions early and often
- Gain buy-in from all levels of the company and commit to apprentices' success
- Demonstrate a commitment to RTI by making time during the workweek and aligning content with on-the-job training
- Identify, incentivize, and support staff who genuinely want to mentor

### **Program administrators cited five common reasons for apprentices leaving their program early:**

1. The program is not what the apprentice expected
2. The apprentice and employer are not a good fit
3. The apprentice had personal or family reasons
4. They found more competitive wages elsewhere
5. They had difficulty coping with the rigor of their academic program

### **Effectively communicate program goals, expectations, and wage progressions early and often.**

Across apprenticeship programs, it is common to have orientations with apprentices and often also with employers, supervisors, and mentors to ensure everyone fully understands the program's requirements and expectations. Information shared in these orientations can include review of the work process schedule, information about the wage progression and milestones, timelines, and the roles and responsibilities of all parties involved in the apprenticeship program. Program administrators noted that apprentices sometimes enter the program without fully understanding the requirements, and the orientation is a way to clarify roles and expectations. One program said that it added an orientation because it found that apprentices were enrolling in its program without knowing the requirements of participation. Communicating program expectations, wage progressions, and milestones can help strengthen apprentice motivation by providing transparency on requirements to receive each wage increase and the timing of when increases will occur. As one program administrator said,

*"Providing our apprentices with advanced notice of pay and benefits gives them clear goals to work towards. They keep going because there is always more that they can achieve."*

Other strategies programs and employers may consider include the following:

- **Competitive wage progression and benefits.** Programs noted that the **actual wages** and **wage increases** apprentices receive motivate them to stay in and complete the program. In some industries like healthcare, apprenticeship wages alone are not always a motivating factor, with some people viewing it as a career pathway with employer investment. One program said that apprentices value the benefits they receive while in the program, including health insurance, multiple pensions, and a health savings account.
- **On-demand access to apprentice progression through tracking systems.** Using **apprenticeship tracking software** like Work Hands, which gives apprentices and others in the program live access to where the apprentice is in the program, **creates transparency** and helps apprentices know in real time how many competencies or hours they need to complete to receive their next wage increase.
- **Clear rules and expectations that are consistently applied.** One electrical program noted that it has strict rules about participation that it clearly communicates and consistently applies to all apprentices. For example, if an apprentice is late to class or misses a class, they must take time off work to make up those hours; if work reports are consistently late, their wage increase is delayed. The program said that, by consistently applying these rules, apprentices know what to expect, and it prepares them to be better employees.

## Apprentice perspective

### Apprentices want to know about wage increases, potential future earnings, and what they are working toward.

Because registered apprenticeship is an “earn and learn,” model, apprentices receive wages for the time they spend on the job. Those learning wages and potential future earnings in an occupation or field are a motivating factor for continuing in a program, according to apprentices we interviewed. One apprentice, who previously completed college with \$40,000 of debt, said that the main reason they stayed in their apprenticeship program was because of the guaranteed pay increases, the benefits, and knowing what they would make at the end of the five-year electrical apprenticeship program. An information technology apprentice agreed that a motivating factor for them was knowing early on what they would get paid by the end of the program and knowing the wage increases later in their career, even if the starting apprenticeship wage was lower than what they previously made. Similarly, another apprentice described reviewing the average salary of a data analyst before applying to their information technology apprenticeship program. One apprentice described the importance of knowing the requirements to stay in and complete the program and that there would be a job for them with the company after they completed their apprenticeship.

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*“It felt like a huge weight off my shoulders to know I wasn’t working full time and also taking courses on extra time. Knowing RTI was part of the expected workload was very helpful in getting me to complete.”*

~ Apprentice

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*“Pay was the big thing. In the union, you have a pay scale so you know getting in you will make X amount of money and you make a percentage of what a journeyman makes; every year it’s a raise. The guaranteed pay increase and knowing what you are making at the end of it and the benefits... it changed my life.”*

~ Apprentice

### Gain buy-in from all levels of the company and commit to apprentices’ success.

Repeatedly, programs noted that, for apprenticeship programs to be successful, employer buy-in is needed from multiple levels in a company. Initial conversations about the apprenticeship program may start with getting buy-in from organizational leaders, but you also need buy-in from human resources, direct supervisors, frontline managers, and mentors who will interact with the apprentice day to day. For some businesses, implementing an apprenticeship program can be a big change to their operations, making it crucial that employers and their staff understand not only the advantages of the apprenticeship program but also the expectations of the program and how they will need to support the apprentice. To that end, programs recommend that the employer’s organization show a willingness to be adaptive and flexible in fitting the apprenticeship program into their existing organizational structure. **Other recommendations for how employers can show their commitment to their apprentices’ success follow:**

- **Provide encouragement, recognition, and feedback.** Encouragement from employers and program staff is important for apprentices because they are usually new to the company and may also be new to the field. Encouragement is also important for incumbent workers who are notified by their employer of their acceptance to an apprenticeship program. This can be an opportunity for the employer to say that the worker is a valued employee and the employer is choosing to invest in them by giving them this growth opportunity to participate in the apprenticeship.

- **Be open to receiving feedback from the apprentice.** Especially for employers who are new to apprenticeship, **creating space for apprentices to provide feedback** on the program, listening to their feedback, and making program changes based on that feedback can improve the program and build trust with the apprentice. Consider asking for feedback throughout the program and at the end of the program before starting the next cohort.
- **Be flexible to the needs of the apprentice and the program.** Employers can demonstrate flexibility by supporting apprentices' work-life balance and adapting on-the-job training (OJT) to the individual apprentice's pace or skills.

## Apprentice perspective

### Apprentices grow and feel valued in a positive, supportive workplace culture

Apprentices consistently described their employers and the culture in their workplace as environments where they felt they could learn, ask questions, and be **trusted to take on new tasks**. The workplace culture extended beyond interactions with mentors. Apprentices described their employers as having **family-friendly policies**, with one apprentice noting that they did not have to worry about being laid off for leaving work early to pick up their child from school. Other apprentices described coworkers as being positive and uplifting, sociable, and willing to help them learn. An apprentice said they appreciated that their employer understood they were coming into the position with zero experience, and another said their employer modified their tasks to fit their capabilities. Employers' team-building efforts also made a difference. Apprentices described other examples of a positive, supportive workplace culture below:

- One employer made its apprentice feel valued by saying that there was a place for the apprentice at the company and that **the employer wanted them there**.
- One employer helped an apprentice **establish the first women's committee** and sent her to an international women's conference.
- One employer invited an apprentice, along with other staff, to the **CEO's home for team building**. The apprentice met other staff with similar backgrounds, which helped them feel inspired and part of the company.
- One employer **hosts group activities** throughout the year for team-building such as hiking and pickleball.

## Demonstrate a commitment to RTI by making time during the workweek and aligning content with OJT.

OJT and RTI are key tenants of an apprenticeship program. Programs emphasized the importance of employers valuing RTI as a crucial part of the apprenticeship program by setting aside dedicated time for apprentices to attend RTI classes during the workweek, rather than having RTI after working hours or leaving it up to the apprentice to figure out when to fit classes into their schedule. Apprentices may be hesitant to ask for time to attend RTI and may prioritize OJT over RTI if they are not supported by their supervisor to attend RTI during the workweek. Programs said that apprentices who do not have time during the workweek to attend class or to complete their coursework may not finish their RTI, preventing them from completing the apprenticeship program. Some employers may even provide dedicated time during the workday to allow apprentices to study or complete assignments while receiving pay for those hours, which is a big benefit to the apprentice. In addition, integrating RTI into the workweek can facilitate learning by allowing apprentices to apply what they learned in the class on the job, and it can make it easier for apprentices to ask mentors for their input on what they are learning. Programs also discussed how the apprenticeship model of learn, apply, learn, apply is most effective when

OJT and RTI are aligned and when OJT enforces classroom concepts. As one program said about integrating RTI into the workweek,

*“There is a huge benefit in terms of grades and incentives for apprentices to continue in the program because they feel the support and it doesn't take away from their home life.”*

**Programs and employers may consider the following practices:**

- **Have dedicated days or hours for RTI, avoiding after-hours learning.** The amount of time dedicated to RTI per week will vary by program, but employers **can dedicate a specific day** (such as every other Friday) **or hours** (such as Tuesday and Thursday mornings) for apprentices to attend and complete required coursework. Apprentices have lives outside of work, and many have families, which can make it difficult for them to manage taking RTI classes after working hours; apprentices are also tired after working and may have a hard time learning after working an eight-hour (or longer) day. Programs varied between paying apprentices during their time in RTI or not paying them, with some offering full wages during the dedicated RTI time, and others giving apprentices half-days to make up for their time spent in class.
- **Have foundational classes up front and try to align the timing of what apprentices are learning in the classroom with what they are doing on the job.** Although it is not always possible because of semester class schedules, better alignment of classroom learning and OJT can improve apprentices' experiences. Programs said that when RTI and OJT are unaligned, when RTI comes much earlier than OJT, or when apprentices are doing something on the job that they haven't learned in the classroom, it can be frustrating for the apprentice and employer.
- **Hire RTI instructors who have work experience in the field.** One program said that having RTI instructors who have real-world experience in the field they are teaching can help apprentices by answering their questions as they face them on the job, sharing personal experiences about applying classroom learnings in the field, and acting as a resource to apprentices. An electrical apprenticeship program said that its instructors all have more than 10 years' experience working in the field, which can help ensure apprentices learn how to apply what they are learning during RTI to their OJT experience.

### Apprentice perspective

**Apprentices want scheduled, protected time during the workweek for RTI and for it to be paid**

Across sectors, apprentices emphasized having dedicated time in their workweek to take and complete their coursework. Several apprentices, including all apprentices in information technology, were paid during their RTI hours, which occurred in the workweek. All apprentices described **having set days or times during the workweek for RTI**, and they described the importance of having employers who valued a work-life balance. Apprentices talked about the learning challenges they would have faced if they had to take classes after a long workday and how it wouldn't have been feasible to take classes after working hours as parents because **of family obligations**. An information technology apprentice who was paid during their RTI, which was completed during their workday, said that receiving their full salary was important because most apprenticeships don't pay enough. Having an employer who **fully backs the program** by making sure apprentices had plenty of time for RTI was important. Apprentices in **healthcare** who are incumbent workers also noted the importance of employers having dedicated days for them to focus solely on OJT and other days to focus on their previous position (such as clerk).



*"My life is so structured so if you threw night school into that, how would I make it? I have dinner and bath time and have to help her do her [homework]."*

*~ Apprentice*



*"[Employers] were all in on it and I think that's very important because it's easy for them to say, I really need you to do this and not take your class today or do your homework on your own time because we have other stuff to get done. It was really important that they supported us 100%."*

*~ Apprentice*

**Identify, incentivize, and support staff who genuinely want to mentor.** Across programs, staff emphasized that effective mentors are not just technically skilled but who want to mentor and want to see the apprentice succeed, making it essential for employers to identify people who are willing and able to teach. One program said that, although many staff know their trade well, "breaking it down in extreme detail is difficult," and offering mentor training in areas such as active listening and adult learning styles can be helpful. Programs stressed that the best mentors are often former apprentices who understand the process and want to support others. Programs also emphasized the need to support and incentivize mentors because many are already "worked to death," and adding mentoring responsibilities without recognition leads to burnout, whereas **incentives, leadership framing, or stipends increase mentor buy-in**. One program cautioned against supervisors being mentors because you want apprentices to be transparent about any issues or difficulties they have during training. **Apprentices described specific mentor qualities and practices that helped them connect with their mentors and build rapport, allowing them to feel more confident in approaching them:**

- **Patience.** Apprentices repeatedly said the best mentors take time to explain tasks without frustration, even when mistakes happen. In the trades, one apprentice emphasized that having a journeyman "who doesn't yell when you mess up" and instead guides you through the process was critical.
- **Communication and encouragement.** Apprentices valued mentors who were good teachers and could break down complex concepts into simple steps, providing clarity. It also helped when mentors shared resources, offered templates, examples, and practical tips, making learning less overwhelming. Encouraging apprentices was very important.
- **Real-world application.** Apprentices said seeing how mentors applied skills in practice helped them understand the "why" behind the work. Mentors who could connect training to real job tasks and share personal experiences were highly valued.
- **Regular check-ins.** Apprentices appreciated mentors who were accessible for questions and checked in on them regularly, including making sure they were attending RTI classes. Even when mentors were busy, those who made time for weekly follow-ups or provided quick responses were seen as supportive.
- **Status with employer.** Several apprentices said that mentors who were respected by their employer were better able to advocate with management for their training time or helped navigate workplace challenges, which made a real difference in staying on track.

### Other factors that made a difference to apprentices

Apprentices we interviewed noted two other factors in their ability to stay in and complete their programs:

- **Personal motivation.** Although employer and program support were critical, apprentices emphasized their own determination and external support networks as key to completion. Many described strong personal motivation to improve their lives, gain financial stability, or provide for their families. Several mentioned that they tend to finish things that they start. Apprentices who had prior struggles—such as balancing multiple jobs or paying for college—saw the apprenticeship as a life-changing opportunity and were willing to invest extra effort to succeed.
- **Being part of a cohort or having opportunities to connect with peers.** Cohorts allowed apprentices to exchange ideas, troubleshoot challenges, and celebrate progress together, which they said helped maintain motivation. One apprentice said that “sharing wins and grievances” with peers made the workday better and kept them invested. Apprentices who trained in groups said the cohort reduced isolation, provided emotional backing, and made it easier to persist through difficult coursework or stressful periods. Apprentices shared that peers helped each other study, shared frustrations and successes, and formed a community that made the apprenticeship more sustainable. This sense of “being in it together” was especially important for adult learners balancing work, school, and family responsibilities.

**Examples of other retention strategies across industries.** In addition to strategies that were common across the industries that our respondents represented, there were also innovative strategies for increasing retention that emerged from specific efforts being piloted by a sponsor. Some of these efforts also highlight varying approaches across industries.

- **Offering financial classes.** One program added a financial literacy class to their electrical apprenticeship program, providing apprentices access to a financial advisor and opening ROTH IRAs for first-year apprentices. They meet with the financial advisor again in year 5 before their large wage increase. The program said that more than half of apprentices started ROTH IRAs as young as age 18.
- **Employer rotations and mentor rotations.** An employer partner in healthcare had apprentices rotate through specialty areas up front so they could spend their OJT in the area they were most interested in. An advanced manufacturing program said that it can be helpful to have multiple mentors available to the apprentice, allowing the apprentice exposure to different mentors depending on the skill they are learning. An electrical program said it has mandatory employer rotations, in which apprentices work for at least three different contractors during their apprenticeship.
- **Selective program entry.** An electrical program said that it has a large applicant pool, which allows it to be more selective, contributing to higher retention rates. Conversely, a healthcare apprenticeship program said that it is important for employers to be flexible on their hiring requirements because experience is not the only indicator of whether someone can be trained for a role. The program’s licensed vocational nurse program used to only recruit medical assistants but now also recruits clerks.
- **Pre-apprenticeship preparation.** An advanced manufacturing program said that it vets apprentices through its eight-week pre-apprenticeship program, which acts as an eight-week long interview, helping the apprentice and employer decide if it’s a good fit before starting the apprenticeship.
- **Employer investment in capacity.** One healthcare apprenticeship program said that incumbent worker apprentices have better experiences in the program when their employer invests in backfilling their previous position, allowing them to fully participate in the apprenticeship program without having to

spend too much time doing the duties of their previous role. The program said that the less the apprentice has on their plate outside of the apprenticeship, the better.

- **Supportive services.** Offering or connecting apprentices to supportive services such as transportation supports, especially for apprentices in low-wage occupations or apprentices with low incomes before starting the apprenticeship program, was an important retention strategy. One apprentice who was living in poverty when they entered the program said that receiving gas cards and money for tools allowed them to participate in the program: “People might not think we need assistance, but we do.” One program also said that not having supportive services (such as transportation) can prevent a prospective apprentice from entering the program.

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*“The (classroom) training lined up exactly to the skills needed for the position I was in, which made me want to complete learning. I knew whatever I was learning would help on the job.”*

~ Apprentice

## References

Bruno, Robert, and Frank Manzo IV. “Living Wages in Registered Apprenticeship Programs: an Assessment by Industry, Demographics, State, and Labor Policy.” 2025. <https://illinoisepi.wordpress.com/wp-content/uploads/2024/12/pmcr-ilepi-living-wages-in-registered-apprenticeship-programs-final.pdf>. Accessed December 19, 2025.

## Methods used for this research brief

In November and December 2025, Mathematica interviewed five apprenticeship program administrators across the country.<sup>1</sup> The administrators operate apprenticeship programs in multiple states (Michigan, Arkansas, California, and New York) and various industries largely focusing on information technology, electrical, advanced manufacturing, and healthcare. Across all programs, interviewed staff have reached an estimated 7,500 apprentices, have worked with more than 100 employer partners, and have estimated completion rates ranging from 76 percent to 91 percent. In addition, Mathematica conducted 30-minute individual interviews with nine apprentices who participated in information technology, electrical, and healthcare programs to incorporate their perspectives on what helped them complete their apprenticeships. Eight of the nine apprentices completed their apprenticeship programs, and one is in the last year of a five-year program.<sup>2</sup> Most interviewed apprentices were new to their field and employer when starting the apprenticeship (six apprentices), and a few were incumbent workers (three apprentices).

## Suggested citation

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<sup>1</sup> Three organizations are both an apprenticeship sponsor and intermediary, one organization is a sponsor and RTI provider, and one organization is an RTI provider.

<sup>2</sup> The characteristics of the interviewed apprentices are: White (7), Black (1), Asian (1); female (5), male (4); 20-35 years old (6), 36-50 years old (2); older than age 60 (1); new hires (6), incumbent workers (3).

