

Registered Apprenticeships: Integrated Earn and Learn Pathways at Harper College

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Work-based learning integrates the academic and occupational training that is central to career and technical education and through which students have the ability to gain high-wage, high-skilled occupational experience while pursuing postsecondary credentials (Bragg, Dresser, & Smith, 2012; Holzer & Lerman, 2014; Rayborn, 2015). Work-based learning reinforces the relevancy and authenticity of the learning experiences for students, engaging learners who prefer applied learning environments (Lerman, 2010). Moreover, work-based learning has been found to increase students' persistence, graduation, and employment rates, with notable gains for students from underserved racial, ethnic, and socioeconomic backgrounds (Holzer & Lerman, 2014; Kuh, 2008; Lerman, 2010).

Apprenticeships are contractual arrangements between private employers and workers in which students earn a salary during supervised on-the-job training and while engaging in related academic instruction (Holzer & Lerman, 2014; Lerman, 2010). Apprenticeships are the most intensive work-based learning model and are particularly well suited as an entry point for youth and young adults to middle-skill careers (Holzer & Lerman, 2014). While completing on-the-job learning, apprentices are engaged in coursework that includes math as well as verbal and occupation-specific content (Holzer & Lerman, 2014; Lerman, 2010). Students in apprenticeships are employees and are paid for their work (Alfeld, Charner, Johnson, & Watts, 2013; Holzer & Lerman, 2014).

The benefits associated with apprenticeships can be greater for underserved student populations. This is in part because apprentices are paid salaries that include opportunities for wage progression as students gain mastery of new skills and demonstrate their value to the workplace. This allows apprentices to earn a living wage while pursuing an education (Lerman, 2010). Earning a salary while receiving training increases students' confidence (Holzer & Lerman, 2014). It also reinforces for students the relationship between their investment in skill development results and their income potential (Holzer & Lerman, 2014). This is important for underserved students (e.g., students who are low-income, racial/ethnic minorities, or veterans), who are often unable to afford participation in unpaid internships yet are seeking the high-skills training necessary to obtain family-wage employment. Moreover, apprenticeships are particularly beneficial for low-income students and students of color in terms of increased persistence rates and occupational identity (Holzer & Lerman, 2014). However, despite the benefits associated with work-based learning for underserved students, a lower percentage of these students are engaged in work-based learning (National Survey of Student Engagement, 2007). This article highlights the growing registered apprenticeship programs at Harper College and introduces the Office of Community College Research and Leadership's [Career and Technical Education \(CTE\) Apprenticeship Project](#).

Registered Apprenticeship Programs Are a Win – Win – Win – Win

- Students** Receive a free education that coordinates with their work schedules. They have zero debt, skills to apply to their career, credentials in their field, and an AAS degree that transfers to universities.
- Employers** Engage in a low-risk talent development strategy that yields high profits in loyalty, reduced turnover, and recruiting costs. Employers help in minimizing the skills gap by helping apprentices gain the skills necessary to do the job. Moreover, this is a perfect opportunity to ensure the knowledge of seasoned experts is passed on before they retire.
- Community Colleges** Recognize increases in enrollment, retention, and completion of programs by apprentices. Colleges also strengthen their partnerships with the local business community and are better able to meet the needs of local industries.
- Communities** Acknowledge an economic impact of increased jobs and satisfaction in addressing the skills gap. Employed apprentices are able to raise families, purchase goods and services, and buy homes. These employees go on to become tomorrow's business leaders.

Harper College Leads Community Colleges in the Apprenticeship Initiative

Registered apprenticeships were revived via President Obama's American Apprenticeship Initiative to create a talent development strategy in answer to the skills gap. The U.S. Department of Labor (n.d.) has identified **five core components** of Registered Apprenticeships, illustrated in Figure 1. Apprenticeship is, fortunately, a bipartisan initiative with support from the U.S. Department of Labor, U.S. Department of Education, U.S. Department of Commerce, the White House, as well as business and industry. Harper College was awarded a \$2.5 million American Apprenticeship Initiative grant in October 2015. Apprenticeship can sound old fashioned, evoking historical references or calling to mind something to do with building trades and unions. However, apprenticeships are a proven earn and learn model that ensures a quality education by combining the on-the-job training provided by a company with related technical instruction to prepare the student apprentice for a high-demand career.

Traditionally, companies interested in sponsoring a Registered Apprenticeship program would approach the Department of Labor in their state for help in identifying an appropriate occupation. Companies would have to write the standards, complete paperwork, obtain an education partner, and then hire, train, and track apprentices. It is generally a lot of work, and only large corporations have the capacity for this model. Harper College has spurred the acceptance and growth of an apprenticeship model in which the community college is the program sponsor of a registered apprenticeship program, removing that burden from the companies. In this way, Harper College, or any community college, can aggregate apprentices from a variety of companies into a cohort to move through a lock-step program together on a fast-paced schedule. This practice develops a cohort learning community whose members can pull from their various experiences on the job to enrich classroom discussions. Early outcomes for apprentices in Harper College's programs are promising, with a retention rate of 84% and a mean grade point average of 3.48 (as of spring 2017).

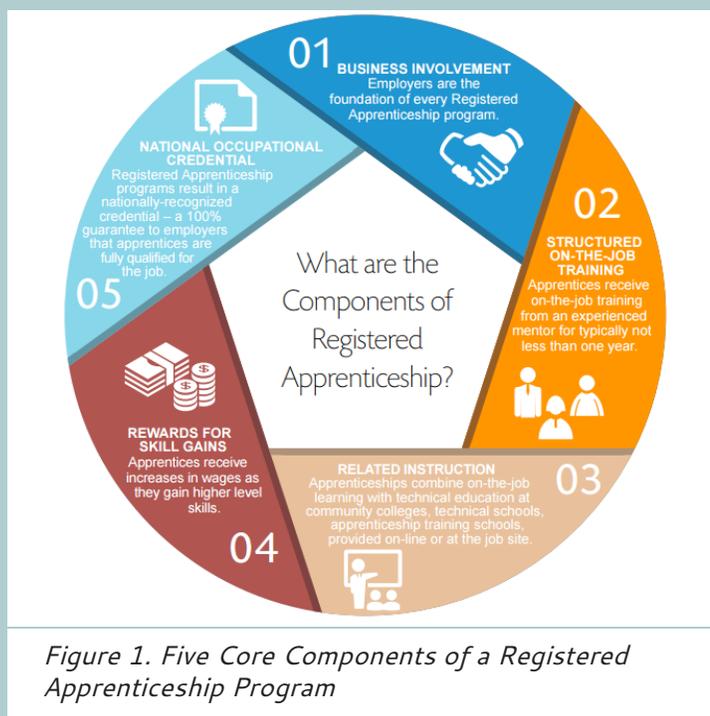


Figure 1. Five Core Components of a Registered Apprenticeship Program

Harper College has developed four registered apprenticeship programs: Industrial Maintenance Mechanic, CNC Precision Machinist, Logistics / Supply Chain Management, and General Insurance. Each of these programs has their full curriculum and weekly schedules online on Harper College's apprenticeship website along with all the forms for companies and students. The website has been a key resource for Harper College in attracting both employers and students to the program.

Harper College's Role and Responsibilities

As both the program sponsor for the registered apprenticeship programs and the provider of the related technical instruction, Harper College is responsible for the following activities:

- Conducting site visits at the company to monitor progress and learning.
- Teaching throughout the full accredited applied associate degree program with experienced, qualified faculty.
- Reviewing the curriculum with companies to help in building an on-the-job training program.
- Registering students for all courses and providing them with new schedules each semester.
- Purchasing all books and materials at the beginning of each semester.
- Providing coaching and tutoring services as necessary.
- Keeping companies aware of students' academic progress.
- Documenting third-party credentials earned throughout the program and funding any fees for the first exam.
- Registering apprentices in the U.S. Department of Labor RAPIDS database.
- Training the trainer for all mentors (partner companies can send as many as they like).
- Providing guidance for observing demonstrations of proficiency.

Employers' Roles and Responsibilities

Companies considering apprenticeship as a workforce development strategy submit an [employer interest form](#). Employers who complete this form are contacted by Harper College's Office of Apprenticeship. The best part of hiring an apprentice through Harper College's program is that employers do not need to do any of the legwork involved in registering a program with the U.S. Department of Labor, and the college assists them throughout the full program. Employers are made aware of the following responsibilities:

- Providing their apprentices with experienced mentors who are responsible for the on-the-job training components of the program. Harper College will give them access to easy checklists of competencies they will observe over the life of the program. Harper College also requires all mentors to attend a four-session workshop in the first semester of their apprenticeship involvement, called "Train the Trainer." These classes teach essential mentoring skills, such as setting goals for and providing constructive feedback to their apprentices.
- Allowing apprentices to attend classes on days when classes are scheduled each semester.
- Documenting apprentices' progress using the forms supplied by Harper College.
- Meeting with Harper College staff regularly to share work plans, competency checklists, grades, and academic progress.
- Providing Harper College with the wage schedule the apprentices will receive as they increase in skills and experience.
- Paying the college a flat fee of \$15,000 for the full program, billed by semester. For example, a six-semester program is \$2,500 per semester for all tuition, fees, books, certifications, and assistance from Harper College.

Companies are also encouraged to work with local high schools to develop an internship program that will allow them to have an "extended interview" with candidates they may later hire as registered apprentices.

New partner employers are often attracted to the program based on their observations of success of the program. For example, a recent cohort of Industrial Maintenance Mechanic apprentices visited a local manufacturing company, which is a routine aspect of

*Registered Apprentices in
CNC Precision Machining and
Industrial Maintenance Mechanic
programs at Harper College in the
manufacturing labs.*



the program. The plant manager providing the tour was so impressed with the group of students, the thoughtful questions they asked, and their overall engagement that he wanted to hire an apprentice himself.

Students' Roles and Responsibilities

Potential students who are interested in one of the registered apprenticeship programs available at Harper College initiate the process by completing and submitting an [interest form](#). This starts the admissions process and directs the student to apply to Harper College. As the current Registered Apprenticeship programs are associate degree programs, candidates must be college ready, as determined by Harper College's admissions office based on either recent ACT or SAT scores or scores on a placement exam. A list of prospective students who are college ready is sent to the Harper College's Office of Apprenticeship. These students are then requested to submit a complete application and resume. Harper College's [Job Placement Resource Center](#) provides resume assistance and interview tips for these prospective apprentices.

Candidate applications and resumes are sent to employers interested in hiring one apprentice or more. Interviews are organized and conducted by potential employers following their standard hiring practices. When a company hires a candidate for the apprenticeship program, Harper College places the student in the Registered Apprenticeship cohort. Students must maintain a GPA of 2.0 to remain in the program. Students are required to sign a contract with their company. This contract states that if the student fail a course or is released from the company they must reimburse the company for any funds invested in their education, and that the student will remain employed by the company for up to two years. Apprentices are batch registered for all courses and attend a customized orientation. Harper College's Office of Apprenticeship keeps the employer informed of the apprentices' academic progress.

OCCRL's CTE Apprenticeships Project

OCCRL has launched a project to study CTE Apprenticeships in the state of Illinois, such as the Registered Apprenticeship programs at Harper College. This baseline study includes an environmental scan that is designed to describe the utilization of CTE apprenticeships in Illinois, the CTE programs these apprenticeships are embedded in, and the student populations engaged in these apprenticeships. OCCRL's CTE Apprenticeships study will answer the following guiding research questions.

1. To what extent are apprenticeships currently embedded in CTE programs in Illinois overall, and in Chicago specifically?
2. What are the characteristics of CTE programs that have apprenticeships embedded in them?
3. How are the apprenticeships within CTE programs structured? What are the requirements for entry into, participation in, and completion of these apprenticeships?
4. What are the demographics of students who are enrolled in CTE programs with apprenticeships embedded in them?
5. What is the relationship between apprenticeship and youth employment, as perceived by faculty of CTE programs with apprenticeships?
6. What factors do faculty identify as being supportive of or creating barriers to the potential to scale apprenticeships in CTE programs?

This study will examine the potential of apprenticeships as a strategy to improve employment prospects for youth and young adults, as well as supports for and barriers to scaling apprenticeships, as perceived by CTE faculty providing academic instruction in apprenticeship programs. Finally, this study will serve as a baseline for future research, by providing a clear picture of existing usage of apprenticeships and illustrating the potential to scale apprenticeships as a strategy to improve youth employment prospects for underserved minority and low-income youth.

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