

COUNTING REGISTERED APPRENTICESHIP COMPLETIONS

BY JENNA LEVENTOFF



States are facing a skills gap, whereby not enough workers are adequately trained for available jobs. In order to meet this demand, many states are establishing statewide postsecondary attainment goals for the number of people with postsecondary credentials. Achieving these goals can help states ensure they have a well-trained workforce and can improve living standards for residents.

However, these goals cannot be met by simply helping high school students to receive a four-year college degree. Between 2014-2024 nearly half of job openings across the country are middle skill positions that require training beyond high school, but not a four-year degree.¹ In order to train enough workers to meet anticipated middle-skill demand, states must pass equitable policies that help a variety of residents, particularly those with barriers to employment, receive training for in-demand careers.

Training for middle-skill positions includes certificates resulting from the completion of a registered apprenticeship program. Registered apprenticeships allow students to earn while they learn, by combining on-the-job training with job-related academic instruction. These programs must meet certain national standards, and the resulting certificates are nationally recognized as certifying a particular set of skills in an occupation.

In 2018, Congress appropriated \$145 million to expand registered apprenticeships. Since 2017, the United States Department of Labor (DOL) has allocated over \$100 million to thirty-six states to help them expand innovative apprenticeship approaches.² Considering the significant federal investment in apprenticeships, states should take care to effectively align how they are spending this funding with their broader workforce and education goals. One way to do this is to collect data that allows them to count registered apprenticeship certificates within their postsecondary attainment goals, thereby showing how registered apprenticeships can help narrow the skills gap.



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Registered apprenticeships have value

Registered apprenticeships benefit workers, employers, and the state's economy. Because apprenticeships are paid employment, they can help upskill workers while allowing for broader participation amongst non-traditional students and people with barriers to employment, who may not have the financial resources to stop working and pay tuition while they train for a new career. Improving postsecondary attainment for non-traditional students and those with barriers to employment is key for meeting state attainment goals because there are simply not enough traditional first-time full-time students to meet the goals and fill employer demand. By completing a registered apprenticeship, workers can attain a recognized credential and have strong employment outcomes upon completion. According to DOL, 90 percent of apprenticeship completers are retained by the company they apprenticed with, and apprentices have an average starting wage of more than \$60,000 per year.³ Over the course of their careers, registered apprenticeship completers earn an average of \$240,037 more than their peers who did not participate in a registered apprenticeship program.⁴

Since apprenticeship programs are created by industry looking to hire skilled workers, they are naturally aligned with in-demand careers, and tailored to the needs of particular employers. Apprenticeships have a strong return on investment for the employers who invest in them. According to a U.S. Department of Commerce study by Case Western Reserve University, Siemens USA had over a 50 percent rate of return on its machinist apprenticeship program, compared to hiring off the street.⁵ According to a report cited by DOL,

for every dollar invested in apprenticeship training, employers receive an average benefit of \$1.47.⁶

There is a clear economic benefit for states as well. In addition to narrowing their middle skills gap, states can save on the costs of programs such as unemployment insurance, Supplemental Nutrition Assistance Program, and Temporary Assistance for Needy Families when recipients of benefits under those programs have access to training that leads to well-paying employment. According to Mathematica Policy Research, states can earn an average "social benefit," (defined as the sum of increased employee productivity and reduced administrative costs of state programs) of \$124,057 over the career of an apprentice.⁷

State postsecondary attainment goals should include registered apprenticeships

Because registered apprenticeships have a clear benefit to workers, employers, and a state's economy, states should promote policies that encourage their achievement. One way states can do this is by explicitly including registered apprenticeships within their postsecondary attainment goals. This signals to the public that registered apprenticeships are a valid pathway to a strong career. It also provides incentive to state policymakers to pass policies that make registered apprenticeship programs more prevalent, which could help states narrow their skills gaps. However, according to an unpublished 2017-18 survey conducted by Workforce Data Quality Campaign (WDQC), only twenty-one states reported including registered apprenticeship certificates within their postsecondary attainment goals.

To understand progress towards meeting attainment goals, states must collect data about registered apprenticeships

In order for states to successfully measure progress towards a postsecondary attainment goal that includes registered apprenticeships, a state must collect individual-level data about registered apprenticeships. This enables the state to know which residents have enrolled in registered apprenticeship programs, which industries those apprenticeships are in, and the demographic characteristics of those who completed their apprenticeship and earned a certificate. According to WDQC’s “Measuring Non-Degree Credential Attainment Fifty State Scan,” twenty-seven states reported having most or all data about registered apprenticeship programs within a state agency.⁸ The rest of the states may not have an accurate method of knowing how many of their residents have enrolled in and completed registered apprenticeship programs, and how those completions help equitably address the skills gap.

The process for collecting data about registered apprenticeships, which usually includes data about the apprentice and the apprenticeship program, varies depending upon where a state’s programs are administered. Administration of registered apprenticeship programs varies among states. About half of state registered apprenticeship programs are administered by a state agency referred to as a State Apprenticeship Agency (SAA). In the rest of states, DOL’s Office of Apprenticeship (OA) directly registers and oversees apprenticeship programs. Because apprenticeship programs are overseen in different places, there is no comprehensive repository of information about all registered apprenticeship programs in the country.

DOL’s data system that holds registered apprenticeship data is called the Registered Apprenticeship Partners Information Data System (RAPIDS) 2.0. The database contains information about apprentices and registered apprenticeship programs in all states whose registered apprenticeship programs are overseen by DOL, as well as nine state programs administered at SAAs. RAPIDS 2.0 has data about apprentices such as a unique identifier, demographic information, contact information, and current enrollment status in an apprenticeship program. It also contains program information including the related instruction provider, the employer, the duration of on-the-job instruction, and the apprentice’s wage rates.⁹

In the rest of states, data about a particular state’s registered apprenticeship programs is likely held within that state’s SAA database. SAAs usually collect similar data to that in RAPIDS 2.0, however, the specific data elements may vary slightly from state to state.

There is no clear benefit to where a state’s registered apprenticeship data is housed, provided that the entity holding the data is willing to share it. This paper provides case studies about how two states that include registered apprenticeship within their postsecondary attainment goals access and share registered apprenticeship data. Iowa represents states whose programs are administered by DOL, and Washington represents SAA states.

Iowa and Washington deserve recognition for collecting individual-level data on apprenticeship completers, although as pointed out below, there is still more both states could do to track apprenticeship data as part of measuring educational attainment.

States can add apprenticeship data to their state longitudinal data systems (SLDS). SLDS allow states to fully utilize data they already collect by matching data from different programs and agencies across time. These systems contain privacy-protected data that follow an individual’s progress through K-12, postsecondary education, training, the workforce, and sometimes include social service programs. Adding registered apprenticeship and other credentials data to their SLDS may make it easier for states to measure progress towards their postsecondary attainment goals, because all of the data about credential attainment can be stored in one place. Moreover, adding data about registered apprenticeships to their SLDS will help states to better understand how apprenticeships fit into their overall workforce and education training system. This can help policymakers design and fund effective programs, can help educators adjust programs based on outcomes, and can allow students to find education and training that meets their needs. When individual-level data in the SLDS includes demographic information, all of these audiences can better understand how programs are serving non-traditional students and those with barriers to employment.

Despite the value of including registered apprenticeship data within SLDS, relatively few states do so. According to WDQC’s Measuring Non-Degree Credentials survey, just nine states incorporate all or most data about registered apprenticeships into their SLDS, and twenty-nine states report having no apprenticeship data in their SLDS.¹⁰ Moreover, relatively few states use their SLDS to measure progress towards their postsecondary attainment goals. Thus, most states are unable to see a clear picture of how registered apprenticeships fit into their state attainment goals, and their broader education and workforce strategies.



Case study: Iowa

Iowa's postsecondary attainment goal, called the Future Ready Iowa initiative, sets a goal that 70 percent of Iowa's workforce will have education or training beyond high school by 2025.¹¹ Counting towards that goal is the attainment of registered apprenticeship certificates.

Iowa's registered apprenticeship programs are administered by DOL, so data about Iowa's apprentices is maintained in RAPIDS 2.0. As mentioned above, RAPIDS 2.0 has data about apprentices such as a unique identifiers, demographic data, contact information, enrollment status, the related instruction provider, the employer, the duration of on-the-job instruction, and the apprentice's wage rates.¹²

In order to receive data from DOL about its registered apprentices, Iowa Workforce Development (IWD) signed a memorandum of understanding (MOU) with DOL. An MOU is a contract dictating what data may be shared and how that data may be used. It also signed an Interconnection Security Agreement governing how the data will be shared and protected. To begin the process of signing an MOU, IWD officials report that they reached out to their regional DOL Employment and Training Administration representative, who was able to connect them with the appropriate personnel at DOL. IWD officials recommend that other states have their workforce agency spearhead any effort to get registered apprenticeship data. Although DOL has a standardized MOU, Iowa reports that it was able to modify the existing contract.

The MOU modification allows IWD to receive data quarterly instead of annually, and to share data with the Iowa Department of Education (IDE). IDE houses the state's SLDS, so, once DOL shares data pursuant to the modification, the SLDS will contain robust information about credential attainment in the state, including attainment of registered apprenticeship certificates. The process to modify the MOU took about a year.

IWD is tasked with measuring progress towards the state's postsecondary attainment goal. Although IWD has data about apprentices from DOL, IWD primarily measures progress towards its attainment goal using data from the state's Laborshed studies.¹³ These studies are conducted through a survey of state residents about their educational attainment, employment outcomes, and commuting patterns. While this information is helpful for measuring progress towards its attainment goal, Iowa would have more accurate information about attainment if it used the data that will soon be in its SLDS. The SLDS would contain comprehensive information about credentials awarded to Iowa residents, and would help the state better understand how apprenticeships fit into achieving the state's attainment goal. Moreover, data in the SLDS is likely to be more accurate than survey data, as surveys often have low completion rates and rely upon self-reported information.



Case study: Washington

The Washington Student Achievement Council (WSAC) has set the state's postsecondary attainment goal. To meet the goal, at least 70 percent of Washington adults must have a postsecondary credential by 2023.¹⁴ Included within the goal are certificates, apprenticeship certificates, and degrees.

Washington's registered apprenticeship programs are administered by the Washington State Department of Labor & Industries (L&I). That agency collects data about registered apprentices from apprenticeship sponsors through its Apprenticeship Registration Tracking System (ARTS). ARTS includes information about each apprentice and each program. Data on apprentices includes their name, demographic information, and enrollment status. Program information includes the program name and related occupation, employer information, and the duration of on-the-job training and related training instruction.¹⁵

WSAC is tasked with measuring progress towards the state's postsecondary attainment goal. Washington officials report that they count registered apprenticeship certificate production using aggregate data provided by the state Workforce Board. The Workforce Board, in turn, gets their data from L&I. WSAC then counts overall attainment using the 2011-2013 American Community Survey published by the United States Census Bureau.¹⁶ This survey contains self-reported data from across the country and is intended to help make decisions about how federal and state funds are distributed.¹⁷

In order to gather more comprehensive information about credential attainment, Washington could utilize the data in its SLDS maintained by the Education Research Data Center

(ERDC), which gets data about apprenticeship participants from L&I. Utilizing administrative records for counting overall attainment instead of survey information would help the state overcome the inherent inaccuracies in surveys.

In order to get apprenticeship data from L&I, the ERDC signed an MOU with L&I in 2011, dictating what data is shared, how that data may be used, and how it must be protected. Pursuant to that contract, L&I sends the ERDC information on an annual basis using a secure system. Data shared with ERDC includes an apprentice's personal identifier, contact information, and demographic information, as well as information about the apprenticeship program, and the status of the apprenticeship.

As shown in WDQC's survey of states, many states struggle to share apprenticeship data with their SLDS. In Washington, state officials believe that apprenticeship data is successfully shared because of a culture of trust between agencies within the state. Agencies know that other state entities will protect the data, and not use the data to disparage another agency. Agency officials also understand the value of data matching. For example, the Washington Workforce Training and Education Coordinating Board (WTECB) tracks the results and taxpayer return on investment for twelve of the state's largest workforce programs, including apprenticeship.¹⁸ By matching apprenticeship data with wage record information to create these reports, the state showed impressive employment and earnings outcomes for apprenticeship participants. In response, Washington's legislature enacted several bills aimed at increasing the number of apprentices in Washington.¹⁹



Conclusion

Because apprenticeships are an extremely effective method of training for individuals and industry, they can be a valuable tool in helping states meet anticipated middle-skill demand. In order to promote apprenticeship participation and completion, states should include apprenticeships within their postsecondary attainment goals.

To measure equitable progress towards their postsecondary attainment goals, states should collect individual-level data on registered apprenticeships, including data about an apprentice's demographic characteristics. States should also add individual-level data on registered apprenticeships to their SLDS, and ideally use the SLDS to measure credential attainment.

Endnotes

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