IES Institute of Education Sciences

Apprenticeship Data

SLDS WEBINAR SUMMARY
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For more information on the IES SLDS Grant Program or for support with system development, please visit *http://nces.ed.gov/programs/SLDS*.

WEBINAR PRESENTERS
Tracy Korsmo and Todd Willnow, *North Dakota Information Technology Department*
Ryan Murphy, *Iowa Workforce Development*
Scott Secamiglio, *Kentucky Center for Statistics*

MODERATOR
Jeff Sellers, *SLDS Grant Program State Support Team*

Registered apprenticeship programs play a valuable role in providing hands-on work experience and training to workers in a wide range of fields. Apprentices learn directly from employers and earn professional credentials that can serve as an alternative or supplement to traditional postsecondary education when preparing them for future employment.

Because apprenticeship programs serve both recent high school graduates and experienced workers training for new professions, data from these programs can offer important insights into state labor market trends as well as long-term employment outcomes for apprentices.

Representatives from North Dakota, Kentucky, and Iowa discuss how they incorporate apprenticeship program data into their statewide longitudinal data systems (SLDSs) and how they use the data to better understand questions about career readiness and workforce development.

North Dakota: Exploring Apprenticeship Data to Expand and Improve Workforce Training

Multiple state initiatives in North Dakota are driving demand for information about apprenticeships and spurring the state's SLDS program, housed at the North Dakota Information Technology Department, to integrate apprenticeship program data with data from other state agencies. The state is interested in increasing the number of apprenticeships available, expanding apprenticeship programs beyond traditional industries and populations, and promoting apprenticeships as an alternative to more expensive postsecondary degrees. Policymakers also see apprenticeships as an important way to continue on-the-job training for workers after graduation.

Apprenticeship partners and data sources

North Dakota has established apprenticeship programs operated through community colleges and professional unions. In the past, these apprenticeships were concentrated largely in the service, construction, and manufacturing industries, and they had low representation of minority populations, veterans, and women. Three state programs are leading efforts to promote and expand registered apprenticeships beyond their traditional industries and participants:

- The North Dakota Department of Commerce has a goal of enrolling 315 individuals in new or existing apprenticeships through a grant program supporting either the sponsoring employer or the apprentice directly.

- The North Dakota Department of Career and Technical Education (CTE) received a U.S. Department of Labor grant to work with community colleges to create new registered apprenticeships in technologically advanced fields and to integrate apprenticeships into the state's workforce development, education, and economic development strategies. Apprentices can receive course credit toward an associate's degree based on their work experience, existing professional certificates, and any prior postsecondary coursework.
- Job Service North Dakota helps enroll qualified individuals in apprenticeship programs funded by the federal Workforce Innovation and Opportunity Act (WIOA).

Through these initiatives, the state is developing eight new apprenticeship programs in eight industries not previously involved in offering registered apprenticeships. The partners are determining how to align the new apprenticeships with established academic degrees and how to award academic credit for participants' prior work experience.

To track apprenticeship information and outcomes, the North Dakota SLDS program established a memorandum of understanding (MOU) to receive data from the U.S. Department of Labor's Registered Apprenticeship Partners Information Database System (RAPIDS), which collects information about apprentices and sponsor employers for federally administered programs.

Next steps for apprenticeship data and programs

North Dakota's SLDS program plans to use data from RAPIDS and its state agency partners to create a statewide view of apprenticeships available by community and track the number and diversity of apprentices. Over time, the state intends to build a comprehensive data management system to help examine outcomes for apprentices, including the credentials they obtain, their employment, and whether they remain employed in the region and industry of their apprenticeship.

This information will help the state market apprenticeships as alternatives to more traditional education-to-workforce pathways, as well as improve and expand its apprenticeship programs over time. In addition to increasing its current offerings, the state plans to create pre-apprenticeship and internship programs for high school students in the future based on CTE career pathways.

Kentucky: Expanding on Apprenticeship Counts to Better Understand Labor Market Trends

The Kentucky Center for Statistics (KYSTATS) manages a longitudinal data system with data from birth to early childhood programs; K12, postsecondary, and adult education; state employment and workforce development programs; and additional health and human services and justice department programs. The center has longstanding relationships with the state's CTE program and the employment office that oversees registered apprenticeships, which help inform existing and new data work examining individuals' transitions between education and the workforce.

KYSTATS and its state agency partners are interested in answering a number of questions about work-based learning programs, workforce development programs, and the academic and career outcomes of people who take part in them, including the following:

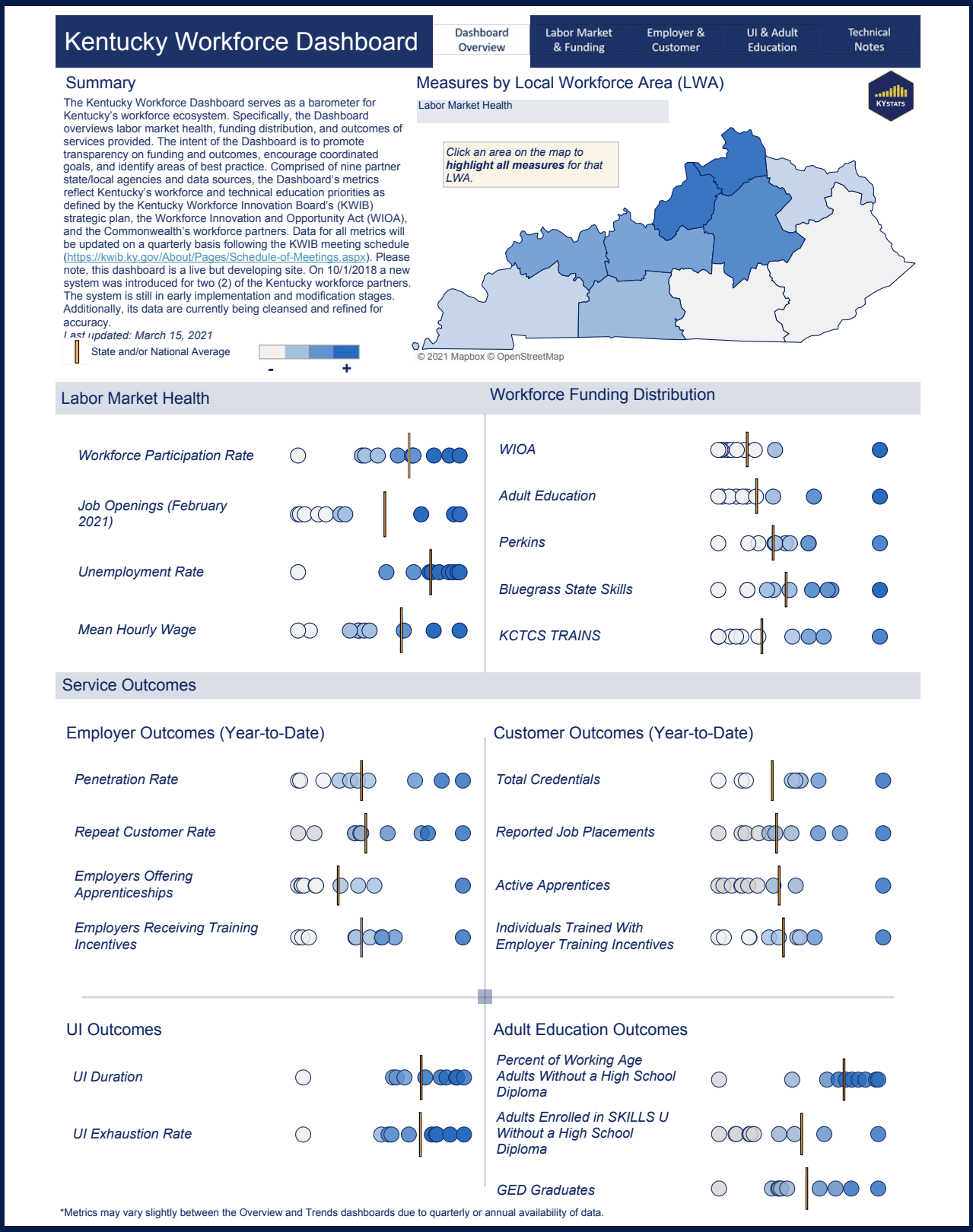
- Are apprentices likely to get jobs immediately after finishing their educational program? Do they have longer employment retention than workers who did not complete apprenticeships?
- Are employers engaging with high schools and postsecondary institutions to develop apprenticeships and work-based learning opportunities?

Apprenticeship partners and data sources

KYSTATS first began using apprenticeship data in its Kentucky Workforce Dashboard, which displays a variety of metrics related to the state's labor market, including unemployment insurance participation, workforce program funding sources, and adult education and workforce training program outcomes (**FIGURE 1** on page 3). The state's Office of Apprenticeships submitted quarterly counts of active apprentices for each of Kentucky's 10 local workforce areas, as well as the number of employers sponsoring apprenticeships. Although these data help illustrate the regional distribution of apprenticeships in Kentucky, they did not contain personal identifiers that would allow KYSTATS to link them to additional longitudinal data in the SLDS to examine employment outcomes for apprentices over time. KYSTATS's ultimate goal was to connect apprenticeship and workforce data to answer critical questions to inform state programs.

KYSTATS recently established an agreement to integrate RAPIDS data from the U.S. Department Labor directly into its SLDS. These individual-level

FIGURE 1. The Kentucky Workforce Dashboard uses data from several state agencies to display information about the state's labor market health, workforce funding, and outcomes for workforce development programs. It contains aggregated counts of active apprentices and sponsor employers in each of the state's local workforce areas.



apprenticeship records can now be linked to data from other KYSTATS partners to show outcomes such as post-apprenticeship employment, educational attainment, and wages. KYSTATS was able to match just under 90 percent of RAPIDS data to records already in the SLDS.

Using apprenticeship data

KYSTATS' previously published counts of registered apprenticeships and the newly integrated RAPIDS records are informing data tools and policies to support the Kentucky Students' Right to Know Act, which takes effect in July 2021. The act requires the state Council on Postsecondary Education—a KYSTATS partner—and its member institutions to publish comprehensive information about the cost of attending postsecondary education programs, graduation rates, employment outcomes for graduates of different majors and institutions, and information about high-demand jobs in the state. The act also requires reports on outcomes for CTE and apprenticeship program participants to illustrate additional workforce training pathways outside of traditional postsecondary education.

In light of the economic and employment challenges caused by the COVID-19 pandemic, KYSTATS also created reports about employment trends for spring credential earners in the third quarter of 2020. The reports released in spring 2021 compare employment rates for high school, postsecondary, and apprenticeship program graduates 6 months after graduation to those of 2016–2019 graduates. Over time, the data will show whether new workers had a harder time finding employment in 2020 than in previous years, and they will help identify differences in employment rates across race and ethnicity, gender, major, and region.

Next steps

KYSTATS plans to use the newly integrated RAPIDS data in its SLDS to report additional information about apprenticeship outcomes. New apprenticeship feedback reports will expand on work-based learning information currently available in CTE feedback reports. They will include longitudinal data showing postsecondary enrollment and completion for apprentices, employment and retention rates, wages earned, and how those outcomes compare to individuals who did not complete apprenticeships. The reports also will focus on equity and giving state policymakers information to help shrink outcome gaps among traditionally underserved populations and those whose careers were more significantly affected by the COVID-19 pandemic.

Iowa: Visualizing Trends and Outcomes for Apprentices Over Time

In 2016, Iowa state leaders created the Future Ready Iowa initiative with the goal of helping 70 percent of Iowa workers complete postsecondary education or training by 2025. The state sees its federally administered registered apprenticeships as a valuable pathway to meeting that goal, especially for older workers looking to earn wages while training for a new profession. As in North Dakota, several state agencies in Iowa are interested in tracking education and employment outcomes for apprentices, and recent grant awards are driving efforts to expand and diversify the industries and individuals involved in registered apprenticeships.

Apprenticeship partners and data sources

Iowa Workforce Development has received quarterly registered apprenticeship data from RAPIDS since 2009. The agency works closely with the state's federal apprenticeship office to understand the data, communicate its intentions for using the data, and review the terms of the data sharing MOU when it needs to be renewed. Apprenticeship data inform programs at Iowa Workforce Development and its partner agencies, including the Iowa Department of Education, which oversees community colleges that train about half of the state's registered apprentices, the Iowa Economic Development Authority, and the Iowa Department of Corrections, which also takes part in registered apprenticeships.

Using apprenticeship data

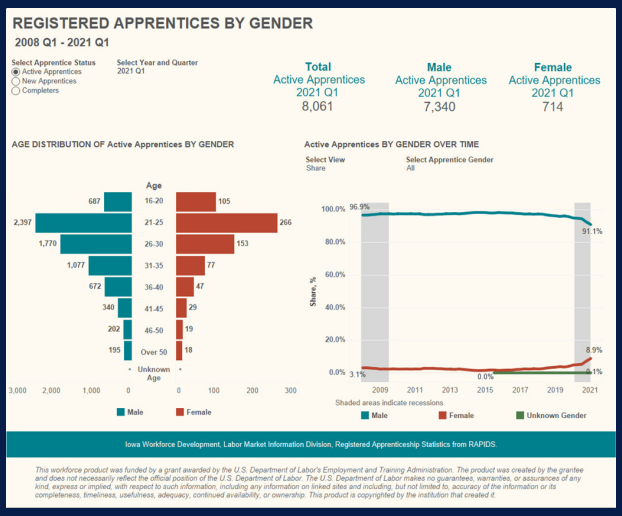
To help the state expand and market apprenticeships, Iowa Workforce Development connected RAPIDS data to its unemployment insurance program records for an initial analysis of professional outcomes for apprentices. The analysis showed that workers employed in Iowa who completed registered apprenticeships in 2012 had a median annual wage of about $65,000. Line maintainers, pipe fitters, maintenance mechanics, and plumbers earned the highest wages, on average, after completing apprenticeships.

As the state seeks to expand apprenticeship opportunities to underrepresented populations and to new industries—including health care, information technology, and finance—Iowa Workforce Development is developing new data dashboards to help track progress toward those goals. The dashboards show demographic information about active and former apprentices to track trends over time (**FIGURE 2** on page 5). They also show active apprentices by occupation as well as employment

rates and wages for apprentices working in Iowa up to 4 years after completing their apprenticeships (**FIGURE 3**). About 90 percent of Iowa residents with apprenticeship data in RAPIDS can be matched to state unemployment insurance data to obtain wage information.

The dashboards, which will be launched in 2021, are designed for use by state workforce program representatives tasked with promoting registered apprenticeships and meeting with sponsoring employers. As pre-apprenticeship opportunities for high school students expand, the state also plans to

FIGURE 2. Iowa's new apprenticeship data dashboards track the number of active, new, and former apprentices by gender (left) and by race and ethnicity (right) to highlight demographic trends in apprentices over time.



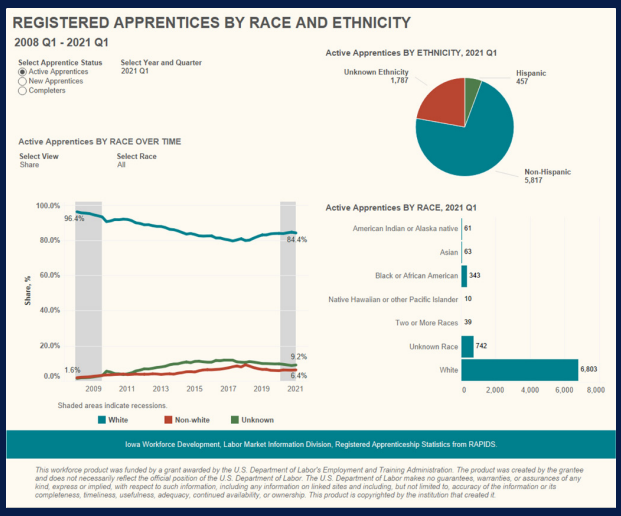
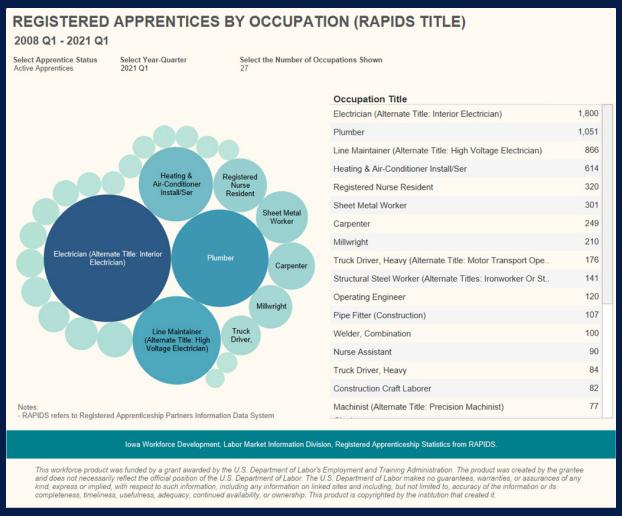
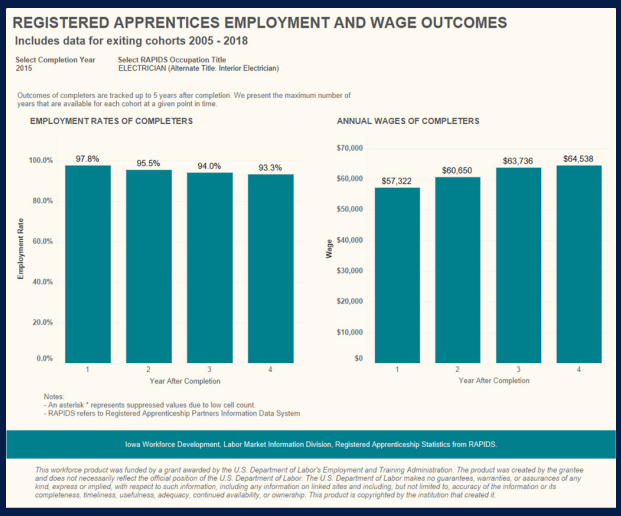


FIGURE 3. Iowa's apprenticeship data dashboards show the number of registered apprenticeships by occupation title (left), which will help state program coordinators evaluate efforts to increase the number of apprenticeships available in traditional and new industries. Apprenticeships are categorized by occupation title used in RAPIDS as well as by Standard Occupational Classification (SOC) code for stakeholders more accustomed to that terminology. The dashboards also show employment rates and wages earned by apprentices up to 4 years after their apprenticeships (right).





add apprenticeship data to its Postsecondary Readiness Report, which tracks postsecondary education and training outcomes for high school graduates.

Conclusion

Data about registered apprenticeships provide additional insight into the pathways that individuals take between secondary and postsecondary education, workforce training, and their professional careers. As with any organization contributing data to an SLDS, building relationships with apprenticeship programs and data providers will help the SLDS program use the data more effectively and help the provider understand the benefits of sharing information with the SLDS. By integrating apprenticeship data with wage and employment information, as well as records from additional education and workforce training programs, states gain valuable information about who these programs serve and how well they equip workers for rewarding careers.

Additional Resources

Iowa Workforce Development
https://www.iowaworkforcedevelopment.gov/

Kentucky Center for Statistics
https://kystats.ky.gov/

North Dakota Information Technology Department
https://www.nd.gov/itd/

SLDS Issue Brief: Best Practices for Calculating Employment and Earnings Metrics
https://slds.ed.gov/#communities/pdc/documents/13014

SLDS Issue Brief: Modeling Occupational Pathways to Inform State Workforce Supply and Demand
https://slds.ed.gov/#communities/pdc/documents/18069

SLDS Issue Brief: State Approaches to College and Career Transitions
https://slds.ed.gov/#communities/pdc/documents/13008