

Understanding the Full Cost of Short-Term Credentials

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There is a growing interest in short-term credentials, which offer alternatives to traditional four-year degrees and are gaining support across the political spectrum. Many factors may help explain why short-term credentials are [gaining traction](#) among students, employers, and legislators as viable pathways to education and jobs without the burden of crippling debt, particularly for [younger generations](#).

In 2022, close to [60,000 academic and workforce providers](#) offered over a million secondary and postsecondary credentials, many of those programs eligible for [federal financial aid](#). Considering the rising cost of a higher education, increased focus on adult enrollment to achieve [state educational attainment goals](#), and [growing skepticism](#) about the return on investment of a traditional four-year college degree, [short-term credentialing](#) is increasingly seen as a cost-effective option that can quickly get learners into higher-paying jobs that require more than a [high-school degree](#).

Yet while short-term credentialing programs provide a [valuable entry point](#) to postsecondary education when they are designed with [students' needs in mind](#), responsive to job demands, and connect students to employers that provide [pathways to sustainable wages](#), their value varies greatly and outcome disparities persist along racial lines.

Black and Latino students are overrepresented in short-term credentialing programs, even though bachelor's degree programs have better outcomes. Research shows that [bachelor's degree holders earn more](#), on average, than those with a high school diploma. Short-term credentials are worthwhile if they also lead to jobs that pay a premium above the high school diploma. Unfortunately, [labor market outcomes](#) for short-term credentials are mixed and ongoing wage growth is not as sustainable as traditional four-year degrees, and credentials that aren't well aligned with student, employer, and state workforce needs can leave students no better off (or, in some cases, worse off) than they were before. A New America study found that students who earn short-term credentials [often have significantly lower earnings](#) than those who earn associate degrees in the same field.

While college completion rates for Black and Latino students are slowly increasing, [significant gaps still remain](#), and Black students are more [burdened by student debt](#) than their white peers, thanks, in large part, to [the wealth gap](#), discriminatory practices in employment, lending, and wage disparities. What's more, there is growing concern that the higher education system may become more stratified, [diverting students](#) from earning associate or bachelor's degrees that offer greater long-term economic benefits. Evidence suggests that [tracking is already occurring](#).

Further investigation is needed to understand the potential value of short-term credentials. While many short-term credential programs appear, at first glance, to offer more affordable pathways to good-paying jobs, little research has been done on their full cost. With that in mind, our team of EdTrust researchers took a deeper dive to better understand the cost of attendance of subbaccalaureate programs and how costs vary across different types of training and program durations.

Understanding the potential return on investment of short-term credentials is essential for workers and learners from low-income backgrounds and members of other underserved communities, who may need more diverse pathways to higher education and have historically lacked the information needed to make informed decisions about their future college and [career choices](#). It is our hope that this knowledge will empower workers and learners to select programs that are cost-efficient, [align with industry standards](#), and lead to jobs that pay a family-sustaining wage, while also helping state leaders to [meet state goals](#) to increase postsecondary education credentialing, reduce workforce shortages, and improve economic mobility for state residents. While research on the value of credentials is evolving, it is not advancing quickly enough to keep pace with [investments in short-term credentials](#) by students, employers, and [policymakers](#).

To better understand the cost of short-term credentials compared to traditional academic programs, EdTrust adapted the Institute for Higher Education Policy (IHEP) [efficiency framework](#) and used it to guide our calculations for determining the [cost of attendance](#) (COA), which is the amount a student can expect to pay to complete a short-term credential. Using [Credential Engine](#) and publicly available data, [we calculated the total cost of attendance of programs of different time durations](#) (e.g., hours, days, months). This allowed us to compare the total cost of different program types on different timelines.

Calculating the Cost of Short-Term Credentials

• Program Costs:

◦ Tuition & Fees

◦ Books, Technology, & Supplies

+

• Living Expenses:

◦ Housing (room) / Food (board)

◦ Transportation

◦ Other (child care, medical care, etc.)

+

Duration of Time (months, days, weeks, etc.)

Asher College Cost of Attendance Per Month: Medical Records Specialist, Coding & Billing Certificate

Credential Engine Data

- Location: California, 95825
- Exact Duration Code: P35W
 - Months in Academic-Year: 8.75
 - Months in Calendar-Year: ~8.055
- Program Costs:
 - Tuition: \$12,610
 - Learning Resource: \$1,340

IPEDS Data

- Number of Institutions in the Region: 37
- Total Room, Board, & Other Expenses Per Academic-Year in Zip Code: \$23,457.50

Asher College Cost of Attendance Per Month: Medical Records Specialist, Coding & Billing Certificate

Total Program Costs \$13,950 +
Living Expenses During Program Length \$22,806
= \$36,756 Total Cost of Attendance

Academic-Year Calculation

\$36,756
8.75 Months

= \$4,201

Academic-Year Calculation

\$36,756
8.055 Months

= \$4,563

How EdTrust Analyzed the Cost of Attendance of Credential & Certificate Programs

The goal of this research was to analyze the cost of attendance of short-term credential and certificate programs of one year or less and see how costs vary across different training types and program durations. Using data provided by Credential Engine, we retrieved the aggregate cost and duration of each program. We defined short-term credentials as postsecondary certificates and industry-recognized certifications, which generally take one year or less to earn.

Cost of attendance was calculated by combining program expenses (tuition, fees, etc.) with living expenses (housing, food, transportation). Using data from the Integrated Postsecondary Education Data System (IPEDS) for schools receiving federal financial aid, living expenses were determined by calculating the median reported costs for off-campus students not living with family. The cost of attendance was calculated for both a nine-month academic year and a 12-month calendar year.

Our final sample included data from academic and workforce providers across 43 states, with 18,971 credential programs among 12 credential types:

- | | |
|------------------------------|---------------------------------|
| 1. Apprenticeship | 7. Diploma (certificate) |
| 2. Certificate | 8. Learning Opportunity Profile |
| 3. Certificate of Completion | 9. Learning Program |
| 4. Certification | 10. License |
| 5. Badge | 11. MicroCredential |
| 6. Digital Badge | 12. Open Badge |

Provider Type Definitions

Academic providers are academic institutions that are authorized for federal financial, such as community colleges, that award associate degrees and other short-term credentials.

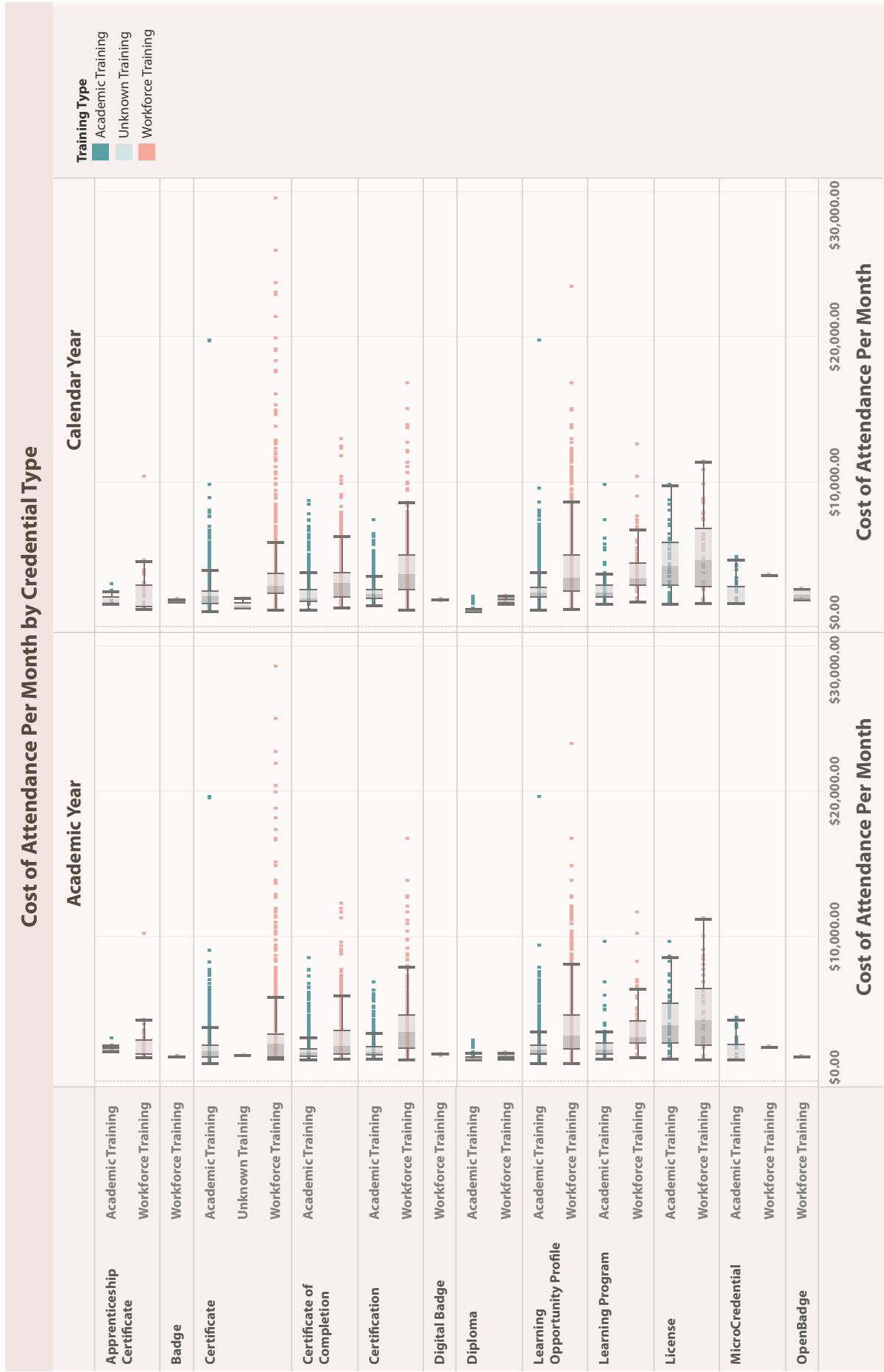
Workforce providers are employers or other organizational entities that award credentials such as commercial driver's licenses, industry recertifications, and are often authorized for WIOA or other workforce funds, but not federal financial aid.

Findings

Our initial findings from 43 states and almost 19,000 credentials revealed four key takeaways:

1. The cost of attendance varies significantly among different credential types

When comparing different credential types, the data showed that the monthly COA of certain credentials, such as certificates and learning opportunity profiles — particularly those from workforce providers — varies widely. Workforce training program providers exhibited greater variance in COA by credential type.



N=12,625 for each year type, 4,179 workforce training credentials, and 8,446 academic training credentials.

Source: EdTrust analysis of the Integrated Postsecondary Education Data System (IPEDS), Institutional Characteristics Component; Credential Engine Data Registry

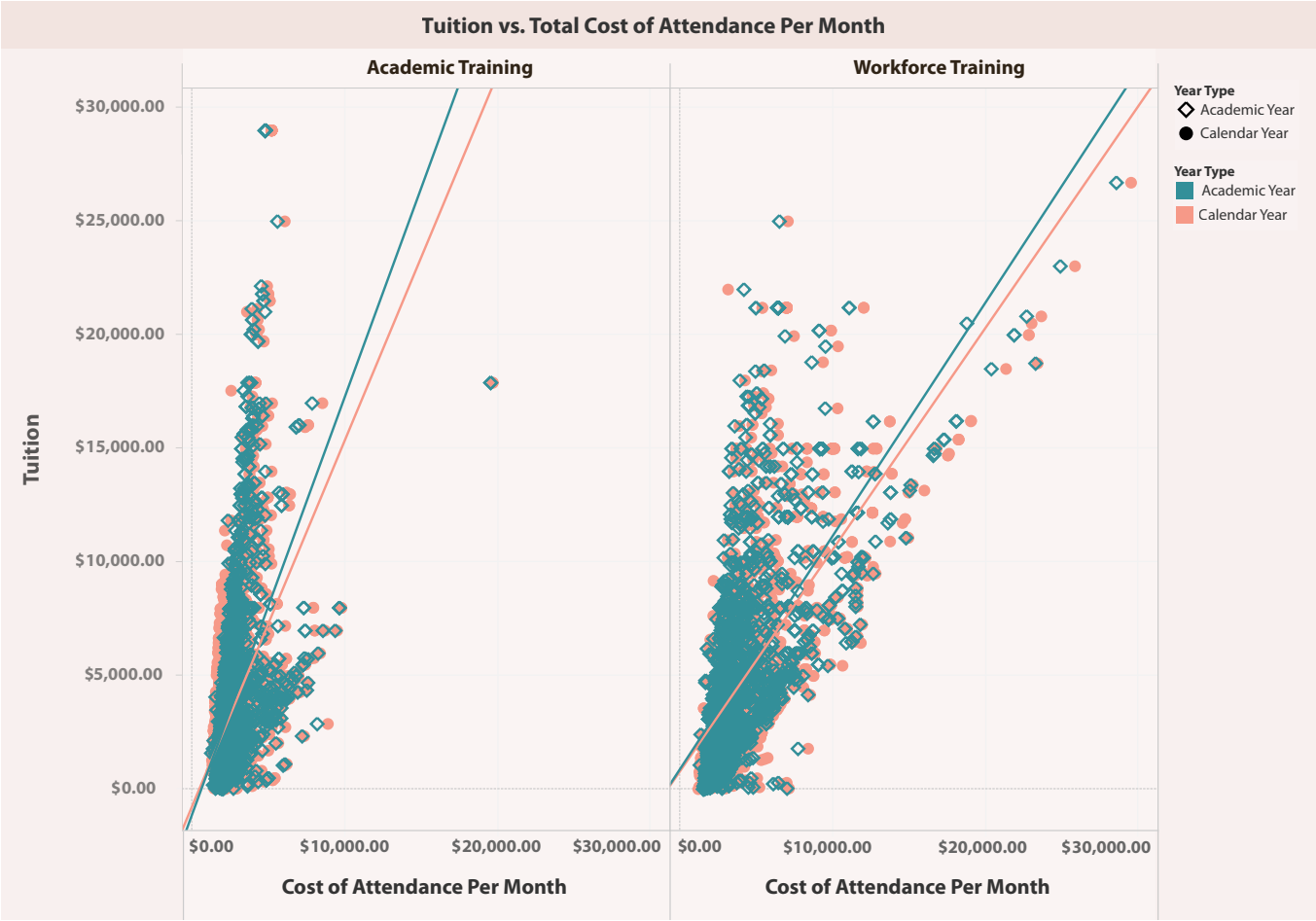
For example, the median COA per month for a certificate program from a workforce training provider was \$2,552 during an academic year and \$2,868 during a calendar year; with tuition and fees ranging from \$0 to \$26,700 per month.

Similar trends are visible in academic programs. The median monthly COA for a certificate from an academic provider is \$2,112 in an academic year and \$2,094 in a calendar year, with tuition and fees ranging from \$0 to \$17,900 per month.

This may indicate that the affordability of short-term credentials is highly dependent on the state’s providers, the types of credentials offered, and, possibly, the [fields related to those credentials](#).

2. Workforce providers generally offer lower total tuition than academic providers

When we looked for trends, we saw that tuition at individual academic programs was twice as likely to be higher than tuition at [workforce provider programs](#).



N=5,907 credentials, 2,179 workforce credentials, 3,728 academic training credentials.

Source: EdTrust analysis of the Integrated Postsecondary Education Data System (IPEDS), Institutional Characteristics Component; Credential Engine Data Registry

We looked at an academic program and a workforce program with a similar monthly cost of attendance (COA) of around \$5,000. Then we compared their price of tuition and found that the estimated tuition at an academic program was around \$8,171 versus \$6,320 at a workforce program.

Overall, programs offered by academic and workforce providers have similar monthly costs of attendance with wide variance. While programs offered by workforce providers generally have lower tuition, COA varies greatly, with some exceeding \$20,000. COA at programs offered by academic providers also tends to be variable, but they typically have higher tuition.

What drives these cost differences remains unclear. The descriptive insights we have gathered now provide a foundation for tracking individual and overall program affordability over time.

3. The hourly program COA for obtaining a short-term credential often exceeds the minimum wage in most states

We decided to use a state’s minimum wage as a reference because research shows that a large share of people who [enroll in short-term credential programs](#) come from low-income backgrounds. Although some programs are reasonably priced, many programs are expensive enough that the hourly cost of attendance is higher than the state minimum hourly wage. For example, in this data, the hourly program cost of every reported credential program in Wisconsin exceeds the state minimum wage. Meanwhile, there are numerous workforce programs in New Jersey that fall below the state minimum wage. It’s important to note that there could be more credentials from states that are not recorded in the registry data. The current data demonstrates that in order to obtain these credentials, students would need financial support.

Minimum Wage and Program Cost of Attendance Per Hour												
State	Min. Wage	Academic Training					Workforce Training				Above/Below Min. Wage	
Washington	\$16.28						100%				Above Below	
New York	\$16.00						100%					
California	\$16.00	100%										
New Jersey	\$15.13	43%		57%			48%		52%			
Colorado	\$14.42	21%		79%			29%		71%			
Illinois	\$14.00	55%			45%		21%		79%			
Florida	\$12.00						57%		43%			
Arkansas	\$11.00						100%					
Ohio	\$10.45						100%					
Michigan	\$10.33						100%					
Wisconsin	\$7.25	100%					100%					
Texas	\$7.25	100%					100%					
North Carolina	\$7.25	100%										
Iowa	\$7.25	100%										
Indiana	\$7.25						100%					

N=6,987 credentials in 15 states, 4,031 above minimum wage, 2,956 below minimum wage

Source: EdTrust analysis of the Integrated Postsecondary Education Data System (IPEDS), Institutional Characteristics Component; Credential Engine Data Registry; U.S. Department of Labor.

State	Min. Wage	Academic Training	Workforce Training	Median Minimum Wage Hours
Washington	\$16.28	722	241	
New York	\$16.00	151	489	
California	\$16.00	1,415	916	
Connecticut	\$15.69	924		
New Jersey	\$15.13	373	430	
Massachusetts	\$15.00	1,073		
Colorado	\$14.42	516	352	
Arizona	\$14.35	1,161		
Maine	\$14.15	1,363		
Illinois	\$14.00	825	714	
Vermont	\$13.67	1,700		
Virginia	\$12.00		175	
Florida	\$12.00		175	
Arkansas	\$11.00		26	
Minnesota	\$10.85		632	
Ohio	\$10.45	887	10	
Michigan	\$10.33	1,037	685	
Wisconsin	\$7.25	508	62	
Texas	\$7.25	1,673	1,464	
Pennsylvania	\$7.25	2,264		
North Carolina	\$7.25	70		
New Hampshire	\$7.25	2,843		
Kansas	\$7.25	1,907		
Iowa	\$7.25	200		
Indiana	\$7.25	983	448	

N=16,581 credentials in 25 states, 5999 workforce training credentials, 10,582 academic training credentials

Source: EdTrust analysis of the Integrated Postsecondary Education Data System (IPEDS), Institutional Characteristics Component; Credential Engine Data Registry; U.S. Department of Labor.

Note: Our data captures credential information at a certain point in time, and there is likely more program information available. We encourage states with robust credential data to submit it to the Credential Engine Registry or replicate our project analysis to understand the nuances of their individual state data.

The data shows a trend: The higher the minimum wage, the fewer hours a student must work to potentially afford a training program, particularly for workforce training. Although our analysis did not account for financial aid that could reduce the cost of these programs, decisions about postsecondary education are often impacted by the [sticker price](#) of programs. Increasing the availability of financial assistance for high-quality, in-demand programs

would enable more learners to achieve greater returns on their earned credentials. Without financial assistance in Washington, where the minimum wage is \$16.28, a student would have to work 241 hours, on average, to afford a workforce program, while in Texas, which has a minimum wage of \$7.25, a student would have to work 1,464 hours — or seven times as many hours — to potentially afford a similar program.

4. Workers and learners may need financial assistance to access and complete short-term credentials

The findings above highlight the need to provide financial assistance to help students afford short-term credential programs.

There have been discussions on expanding the use of Pell Grants for [short-term credential programs](#) and the [Workforce Authorization and Opportunity Act \(WIOA\)](#), the federal law that created our nation's workforce training system, which is currently going through a bipartisan reauthorization process in Congress. This means there is a golden opportunity to explore how WIOA funds can continue to [support learners and workers and meet their needs](#) by encouraging cross-sector partnerships, providing accountability guidelines and other positive interventions.

To ensure that short-term credential programs are accessible and affordable, federal and state policymakers, along with academic and workforce providers, must prioritize financial transparency, data sharing, and accountability. Ultimately, our research underscores the need for more in-depth analysis of the return on investment for these credentials and the financial aid available to support them. This will help ensure that students, particularly those who are from low-income backgrounds, choose programs that offer real value without driving them into financial hardship. Additionally, policymakers need to evaluate programs that may ultimately harm students' long-term financial well-being and determine how to address them.

Improving Data Collection

EdTrust acknowledges the limitations of self-reported data. Furthermore, variations in reporting practices across different states could lead to inconsistencies in the data findings, making it challenging to draw uniform conclusions.

As a result, findings based on the available data may evolve over time as more comprehensive information becomes available. It is crucial to interpret these findings with thoughtful consideration, as the landscape of state credentials is likely to shift as the Credential Engine registry becomes more complete.

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More data is needed on the cost and value of short-term credentials. While many states want to showcase certification data, few systematically collect this data. The [State Noncredit Data Project Survey](#) from the Education and Employment Research Center shows that states are seeking insights into completion rates and employment in relevant fields, yet data-sharing agreements between states and nonacademic institutions are limited.

Importantly, data that is disaggregated can provide insights into disparities and workforce outcomes based on [gender, race, socioeconomic status](#), and more in short-term credentialing. For instance, it can reveal whether certain racial or gender groups are disproportionately represented in specific fields and whether there are significant gaps in access to credentials. Similarly, examining socioeconomic status helps identify whether individuals from lower-income backgrounds still face barriers or have distinct [return-on-investment](#) rates in certain fields.

By highlighting variations, disaggregated data can not only inform policy decisions aimed at promoting workforce engagement, but also help educators and employers tailor support to address the specific needs of groups, ultimately fostering a more [inclusive](#) and effective workforce.

Robust state data systems can improve access to critical information on what works. Data incorporated into a statewide longitudinal data system can help communities and policymakers fully understand short-term program quality, program demographics, and employment outcomes for different program lengths and types. [Nineteen states](#) have already begun to include early learning, K-12, postsecondary, and workforce data elements in their data systems.

Additionally, [data agreements](#) between private data holders and government agencies are vital to transparency. For example, Texas is in the process of implementing a [state credential library](#), which will eventually include data on all education and training programs and credentials offered by state public institutions and incorporate major private short-term credential providers (such as Google, Dell, Amazon, CertNexus, and Salesforce).

Similarly, Kentucky's longitudinal data system, managed by [KYSTATS](#), includes employment records and disaggregates data by race, age, and other demographic characteristics to help users understand the impact on different communities, and provides data to help users understand the return on investment of different program and credential types.

Quality can be prioritized if policy decisions are data driven. By tracking outcomes for learners before and after earning a credential, [robust data systems](#) can be a catalyst to ensure more equitable outcomes. Federal policymakers should implement robust data systems to collect key information on program outcomes, ensuring that stakeholders and policymakers have access to detailed information on the value of credential programs.

State policymakers can enhance financial support and data integration by incorporating short-term credentials into state longitudinal data systems (SLDS) and establishing [data-sharing agreements](#) with nonacademic program providers to promote data sharing and interoperability among states and local workforce boards. [Workforce providers](#) should also track and disaggregate participant progress and post-program outcomes, such

as employment and wage increases, to ensure the quality and rigor of these programs. By addressing these considerations through [collaboration](#), stakeholders can better support workers and learners and ensure that short-term credential programs lead to meaningful career opportunities. This transparency will help students understand the true cost of these programs and the potential return on investment.

Developing a [quality-assurance framework](#) and competencies for short-term credentials creates guardrails, so that credentials are held to the same expectations as accredited degree programs. It also protects students and their families, enabling them to make more informed decisions about their future. Additionally, establishing standardized reporting requirements for states and local workforce boards to collect and report consistent, disaggregated data on program outcomes and performance provides insights on the programs leading to the best outcomes.

KEY TAKEAWAYS

EdTrust's research on short-term credentials highlights four takeaways.

1. While short-term programs can offer a quicker route to employment, the cost of attendance varies significantly across providers and may be creating disparities in access.
2. In many cases, students may require financial support, because the hourly cost of attendance is higher than the minimum wage in most states.
3. Workforce providers generally offer lower tuition than academic institutions, but quality and long-term financial outcomes remain uncertain, especially for students of color and students from low-income backgrounds.
4. There is a pressing need for better data systems and transparency to help students make informed decisions and ensure that the credentials they earn lead to meaningful employment and financial stability. Enhancing reporting through state efforts or third parties like Credential Engine will be essential for further uncovering the true value and accessibility of these programs.

What's Next?

To further advance this work, several key steps must be taken. First, states and providers should submit more data to the Credential Engine registry, and researchers should review the new and updated entries or more robust local data to ensure that our understanding aligns with the most current trends. Moreover, EdTrust will conduct a deeper analysis of the data by program occupation to better understand how various fields are represented and the cost differences among them. Additionally, examining enrollment numbers and available demographic information will be essential to uncover where workers and learners are investing their time and money — and whether access is equitable.

Finally, while these analyses are crucial, we must continue to push for policy changes that address financial and systemic barriers, ensuring that individuals who possess the skills to succeed in higher education have a fair opportunity to earn a bachelor's degree. Researchers are encouraged to replicate this study using more robust or localized data to deepen our collective understanding and drive informed action in support of all learners.

About the Data

The data used in this study was obtained from Credential Engine in March 2024. Credential Engine provides comprehensive information, which is self-reported from the programs, on various educational credentials; its detailed cost and duration information was used to analyze short-term credentials.

To ensure the relevance and accuracy of our analysis, we included only those programs that provided both aggregate cost and exact program duration codes. This process resulted in a final sample size of 19,549 credentials. Programs with an aggregate cost exceeding \$100,000 were excluded from the analysis, as were programs not categorized under specific credential labels, such as Apprenticeship Certificate, Badge, Certificate, Certificate of Completion, Certification, Digital Badge, Diploma, Learning Opportunity Profile, Learning Program, License, Micro Credential, or OpenBadge. These exclusions were made to focus the analysis on programs that are most relevant to subbaccalaureate education.

Given the varied formatting of the credentials stored in JSON format, we utilized a combination of OpenRefine and Python to extract and standardize the necessary information. These tools were essential in managing the diverse data structures and ensuring the consistency of the variables used in the analysis. Extensive data processing to standardize the variables for analysis was required. Despite these efforts, some limitations may remain due to the inherent variability in the data provided by different programs.

Cost of attendance was calculated using two different methodologies. The first method divided the aggregate cost of the program by an academic calendar, where one year is defined as nine months or 36 weeks, assuming five days per week. The second method used a calendar year, where one year equals 12 months or 52.14 weeks, assuming seven days per week. This dual approach provided a comprehensive view of costs under different timeframes.

Additionally, state minimum wages from the U.S. Department of Labor were incorporated into the analysis, so we could compare the cost of one hour's worth of attendance against the state minimum wage, providing further insight into affordability.

Several derived variables were created to facilitate the analysis:

- **Training Type:** Programs were categorized as either "Academic" or "Workforce" training. Programs were classified as "Academic" if they appeared on the Integrated Postsecondary Data System (IPEDS) or College Scorecard. Those that did not appear on these platforms were categorized as "Workforce." The final dataset included 11,596 academic programs and 7,375 workforce programs.
- **Exact Duration Code Calculation:** Credential Engine stores the duration of programs in ISO 8601 format. We adhered to these standards to calculate the exact duration of each program, breaking it down into six categories: Years, Months, Weeks, Days, Hours, and Minutes. This categorization allowed for a more detailed analysis of program length.

We defined "short-term credentials" as postsecondary programs and certificates, as well as industry-recognized certifications, which generally take less time to earn than a traditional bachelor's degree, often one year or less.