

Designing, Implementing, and Evaluating College Nondegree Programs: Lessons from Five Institutions



Photo courtesy of Ivy Tech Community College



ACE and the American Council on Education are registered marks of the American Council on Education and may not be used or reproduced without the express written permission of ACE.

American Council on Education
One Dupont Circle NW
Washington, DC 20036

© 2026. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without permission in writing from the publisher.

PROJECT BACKGROUND

Nondegree programs continue to be an expanding field of interest and enrollment in the U.S. higher education landscape. Frequently developed in response to labor market needs, they offer alternative, flexible pathways to credentials that can be completed more quickly than traditional degrees. Nondegree programs typically refer to postsecondary education programs that yield nondegree credentials, which may include certificates, industry certifications, occupational licenses, apprenticeship certificates, badges, and other forms of microcredentials. These programs can be either credit-bearing or noncredit-bearing, and depending on institutional design, they may also be stackable with other degree or nondegree programs.

Despite their growing prominence, nondegree programs vary widely in definition, structure, purpose, and outcomes. This variability creates challenges for stakeholders—such as learners, institutions, employers, funders, researchers, and policymakers—who need to understand how these programs operate and how their value can be measured. Greater clarity can strengthen access to quality credentials and inform policies and incentives.

To build this understanding, the American Council on Education (ACE)—with support from Lumina Foundation—conducted a multi-part study of the ecosystem of nondegree programs. The study focuses on offerings within postsecondary institutions, examining their structures; the roles of colleges and external partners; the influence of policy environments; and the ways outcomes are defined and assessed. This work also informs ACE's ongoing effort to update the Carnegie Classification of Institutions of Higher Education, with the goal of advancing a more inclusive framework that reflects the diverse educational portfolios of institutions, including nondegree education. Together, this work contributes to a fuller and more accurate picture of postsecondary education and its impact.

The project was conducted by Ji Hye “Jane” Kim, Austin Freeman, and Erica Swirsky at ACE—in collaboration with Alisa F. Cunningham, John Archacki, and Elexus Robinson at Higher Ed Insight—under the direction of Hironao Okahana at ACE.

Designing, Implementing, and Evaluating College Nondgree Programs: Lessons from Five Institutions

Austin Freeman

Associate, Research, ACE

Ji Hye “Jane” Kim

Senior Analyst and Program Officer, Research, ACE

Alisa F. Cunningham

Senior Advisor for Policy Research, Higher Ed Insight

Elexus Robinson

Research Associate, Higher Ed Insight

John Archacki

Research Associate, Higher Ed Insight

INTRODUCTION

This first brief—part of the four-part Lumina Foundation–funded series on the ecosystem of college nondegree programs—summarizes findings from focus group interviews that were conducted with five institutions to examine how these institutions design, implement, and evaluate their nondegree programs, with a specific focus on certificate programs aimed at workforce development and upskilling. This brief is organized around five primary themes: program design and implementation, student recruitment and support, resource allocation, data management and reporting, and program evaluation and outcomes.

To identify and select the institutions for the focus group interviews, the ACE project team reviewed multiple sources. The team began by analyzing 2021 data from the U.S. Department of Education’s Integrated Postsecondary Education Data System (IPEDS) to find institutions with a significant number of certificate completions. They also examined the websites of the selected institutions to gather more information about their nondegree programs. Additionally, the team reviewed recent literature with examples of institutions that had successfully offered nondegree programs to their students and communities as well as the University Professional and Continuing Education Association’s list of current member institutions. After several discussions, the team selected institutions and invited them to participate in the interviews. Following 30-minute planning calls with each of the institutions that accepted interview invitations, the team then conducted 90-minute focus group interviews with each of the five selected institutions (see table 1) between February and August 2024, in collaboration with the research firm Higher Ed Insight. These focus group interviews included a variety of higher education administrators who were responsible for nondegree program operations, including deans, nondegree program coordinators, institutional research staff, academic advisers, and career center coaches.

Table 1. Information on Interviewed Institutions

Institution Name	Location	Sector	Type	Certificate Completions (2022)
Des Moines Area Community College	Ankeny, Iowa	Public	Two-year	2,018 certificates (undergraduate)
Ivy Tech Community College	Indianapolis, Indiana	Public	Two-year	22,463 certificates (undergraduate)
Miami Dade College	Miami, Florida	Public	Four-year, primarily associate	4,369 certificates (undergraduate)
University of Southern California	Los Angeles, California	Private not-for-profit	Four-year	962 certificates (post-baccalaureate or post-master’s)
Wake Technical Community College	Raleigh, North Carolina	Public	Two-year	3,380 certificates (undergraduate)

Source: Data from U.S. Department of Education, Integrated Postsecondary Education Data System, 2022.

PROGRAM DESIGN AND IMPLEMENTATION

Effective program design and implementation are crucial elements of nondegree programs, which join the institution’s intentions with participants’ experiences and outcomes. To better understand how institutions create and implement nondegree programs, each interview included several questions about program design and implementation, such as:

- How does your institution define nondegree credentials and nondegree programs?
- What motivated your institution to offer nondegree programs?
- How did your institution realize the needs of the programs? Were there any unique contexts or backgrounds?
- What is the relationship between degree programs and nondegree programs at your institution?
- How does your institution approve new nondegree programs or add nondegree options for existing academic programs?
- Does your institution offer nondegree programs for the community (e.g., for local high school students and adult learners)? If so, what types of nondegree credentials are offered?
- How are the programs marketed?



Photo courtesy of Wake Technical Community College

Almost all of the surveyed institutions reported that improving students’ employment outcomes and economic mobility was the primary goal for offering nondegree programs. As an example, Wake Technical Community College has positioned itself as a “ladder college;” the institution recognizes that, for many individuals, nondegree and workforce training services serve as a crucial entry point into the job market, while it also acknowledges that access to entry-level job opportunities does not always result in extensive advancement possibilities. This strategy aims to create pathways for working adults to advance their careers by connecting entry-level programs with apprenticeships and other educational opportunities through certifications, stackable credentials, and—potentially—college credit.

The emergent themes from our conversation with Wake Tech further exemplified a larger trend of institutions that align their program development with industry demands and workforce needs to ensure that their students acquire relevant skills and credentials for meaningful employment opportunities. For example, the University of Southern California (USC) operates a decentralized structure that grants deans and directors the flexibility to create new credential programs based on market opportunities and changes in the labor market. The USC Marshall School of Business and USC Gould School of Law each offer a range of certificates that, as one focus group participant explained, “have allowed us to reach out to working professionals [who want to specialize in] certain areas of law or business, as well as for USC to get a temperature on the employment market.” A staff member at Des Moines Area Community College (DMACC) echoed this motivation for designing and offering nondegree programs: “Noncredit programs help DMACC respond to the in-the-moment needs of the communities and employers.”

All of the institutions that we interviewed had collaborated with external partners to ensure that nondegree programs are informed by real-world needs and adhere to industry standards. These collaborations include local employers, industry stakeholders, and community organizations that sometimes provide feedback on curriculum design and desired skills taught in the classroom (depending on the institution). As an example, DMACC assesses workforce needs through ongoing engagement with advisory groups, which are composed of industry leaders whose input quickly shapes the curriculum design of nondegree programs to meet specific workforce needs. A staff member at Ivy Tech Community College echoed this feature of nondegree programs: “This is one of the beauties of the workforce and skills training side of the college—we always get to be nimble, adapting and reacting to employment needs in real time.”

Institutional Case Study 1: Wake Technical Community College

Wake Technical Community College is a two-year public institution in Raleigh, North Carolina. Wake Tech originally opened as an industrial education center that focused on workforce training and career technical degrees. Over time, the North Carolina community college system, of which Wake Tech is part, evolved to include university transfer opportunities. North Carolina makes a point to offer a wide variety of nondegree programs that have flexibility in their creation and implementation and also advocates for funding equivalence and many opportunities for credit stackability—a unique approach when compared with that of other states.

Wake Tech’s “one-college model” integrates nondegree programs into its overall educational framework, ensuring that they are integral components of the institution’s educational mission rather than as separate entities. With this model, provosts oversee specific areas such as health sciences, information technology, and public safety; align nondegree programs with degree programs; identify new nondegree courses that can lead to an associate degree; and ensure that nondegree programs qualify for degree credit. This intentional alignment and responsibility from the degree side facilitates the connection between nondegree and degree programs, which makes it easier for students to transition from nondegree to degree programs.

Institutional Case Study 2: University of Southern California

The University of Southern California (USC) is a four-year private, not-for-profit institution in Los Angeles, California. With an overall enrollment of more than 49,000 students, USC has a large academic, economic, and workforce development impact on Southern California. Overall, USC operates largely decentralized offerings of nondegree programs; this enables each of its graduate schools and deans to innovate and customize their programs. USC Gould School of Law offers a wide range of certificates and degrees. Certificate candidates may apply some of their certificate credits toward the degree requirements for specific master’s degrees if enrolling immediately after completion of the certificate. Candidates of select master’s degrees have the option to enroll in a certificate concurrent with their degree. Although the university does not offer centralized financial and career service support for nondegree programs, many of USC’s schools and departments have their own philanthropy, private funding, and career services that support these programs. In the past, the majority of these programs’ own fundraising apparatus have come from individuals and their employers. However, the competitive nature of other training companies (e.g., LinkedIn Learning) has proven to be a major challenge for USC and other institutions. This has caused USC to further differentiate the executive education and career components that are incorporated into its professional and continuing education.

Ultimately, USC has a very strong brand for its professional and continuing education. USC’s broad reach and the organic demand created by the employer market are key factors as to why USC operates a larger variety of for-credit certificates than that of other comparable institutions. A very notable goal that was mentioned in the interview is that USC is aiming for its certificate and nondegree programs to have the same level of desirability, rigor, and ownership as its reputable graduate and undergraduate programs.



STUDENT RECRUITMENT AND SUPPORT

Today's students are increasingly diverse in age, background, financial situations, motivations for enrolling, work experiences, and more. To effectively navigate this evolving student landscape, institutions must be flexible and engage with students where they are. This approach is essential for successfully recruiting and supporting students throughout their programs, whether they are participating in a one-month apprenticeship course or pursuing a two-year certificate. To gain a better understanding of how institutions are marketing, enrolling, and supporting their students, the project team asked the following questions:

- Who are the targeted students for nondegree programs?
- How does your institution market its nondegree programs to potential students?
- How does your institution provide student support or follow up after the completion of nondegree programs (e.g., career services, invitation to continue further studies)?

Several of the institutions emphasized the importance of flexibility in their student recruitment and outreach strategies—as well as in their delivery methods—in order to remain relevant and responsive to market needs and new technologies. For example, Wake Tech focuses on outreach through its website, course digests, strategic community locations, mailings, and community partnerships. Some community engagement events, such as open houses and virtual sessions, assist potential students with the enrollment process. All of the surveyed institutions targeted multiple student groups, including recent high school graduates, underserved populations in the community with no college experience, individuals who are transitioning between industries, and unemployed individuals. Some institutions, such as USC, have a somewhat more selective market of student consumers, as their programs are designed not only to promote continuing education but specifically to provide students who already have an initial credential with the opportunity to revisit or revamp their education and gain certifications. However, the strongest trend across all the interviewed institutions was the intention to provide the same quality of support services for nondegree students as those for degree-seeking students, with a particular emphasis on career services.

One staff member at DMACC explained their emphasis on providing comprehensive career advancement: “(We) want to ensure that all DMACC noncredit students are aware they have the same access to all DMACC services. There is

a difference between telling a student to go to an office to meet with people they don't know versus asking them to show up with a university staff member to discuss financial aid options or career services.” Furthermore, DMACC also provides all noncredit students with access to a career counselor—called a navigator—who follows up with students in the year after they complete their programs. This is just one of several examples of how institutions provide students with the opportunity to expand and advance their careers through their new credentials. At Wake Tech, all students receive access to multiple career services, including job search advising, resume building, mock interviews, and job-posting platforms such as Handshake. Although each institution provides its career services in different formats (in person, online, through the specific noncredit program, etc.), they all reflect the institutions’ interests in how students have utilized the nondegree programs and what jobs they have obtained after completion.

RESOURCES

Institutions that invest in and develop nondegree programs must strategically allocate their resources to ensure program quality and effectiveness. Given that nondegree programs are usually new types of programs that vary in the type of credential that students earn, many nondegree programs are often ineligible for federal student aid programs. To better understand how institutions are utilizing their resources and the types of data and policy issues they face, the focus group interviews addressed the following questions:

- Are nondegree-seeking students at your institution eligible for institutional or governmental financial aid?
- What are the key financial sources for developing and offering nondegree programs (e.g., federal or state government, institutional funds)?

Many institutions utilized several funding sources, including federal and state governments as well as local employers. For example, nondegree-seeking students at Ivy Tech can access state funding through Indiana’s Workforce Ready Grant and often have employers that pay for re-skilling directly. DMACC nondegree students are not eligible for federal financial aid, but they can access supplemental assistance programs such as the Supplemental Nutrition Assistance Program (SNAP) and Electronic Benefits Transfer (EBT) that are designed to help eligible low-income households afford food. The state of Iowa, in which DMACC is located, has provided large support for approved certificate programs and other workforce development initiatives. While this state funding is not unlimited, DMACC ensures that qualified students receive assistance. The key financial sources for developing and offering programs at DMACC include funding from the state of Iowa and the federal Workforce Innovation and Opportunity Act (WIOA). A key highlight of DMACC’s programs (both credit and noncredit) is that the majority are listed as approved workforce development activities on WIOA’s Title I list of job training and employment advising for unemployed and underemployed individuals. This raises questions as to whether many nondegree programs at other institutions also receive WIOA funding or if they are aligned to WIOA’s program design of supporting workforce training and increasing career prospects for unemployed and underemployed adults, dislocated workers, and youth.

DATA MANAGEMENT AND REPORTING

Effective data management and reporting are crucial for the success and accountability of nondegree programs in postsecondary education. Given the wide variety of the types of nondegree credentials that students can pursue—as well as differing program lengths—properly collecting and tracking data on nondegree credentials can be difficult. To learn more about institutional practices and challenges with nondegree programs data management and reporting, the team asked the following questions during the interviews:

- How does your institution collect and manage data on nondegree programs?
- How accurate, complete, and consistent is the existing public universal data around nondegree programs? What is missing in the existing public universal data?



Photo courtesy of Des Moines Area Community College

Almost all of the interviewed institutions indicated they have at least one data management system in place to track enrollment, completion, and enrollment data for nondegree students, which often serve both internal and external reporting requirements. For example, DMACC focuses on tracking nondegree program enrollment, completion, and employment data to demonstrate their effectiveness and justify funding. DMACC tracks its data through the U.S. Department of Education’s Classification of Instructional Programs codes as well as with Ellucian Student. At Miami Dade College, the reporting requirements of partners and funders also serve as a primary motivator for data collection, as some new private funding sources require reporting on noncredit industry certifications. In addition, the state funding requirements for adult education programs require the tracking of all enrollment and completion metrics, including performance. Given that several states have begun attaching data reporting requirements to state funding or approval of nondegree credentials, state education agencies and their partnerships with colleges and universities in their state have a significant opportunity to help create consistent data collection across the state.

The institutions shared many challenges, including difficulties in tracking post-completion data, inconsistencies in data from various departments and programs, and a lack of clarity in the IPEDS certificate reports. The lack of clarity regarding what types of credentials should be reported to IEPDS and under what categories was a common theme that emerged across all interviewed institutions. At Ivy Tech, workforce and industry certifications are not reported to IPEDS, but academic certifications are. Staff at both Ivy Tech and Wake Tech colleges expressed a desire for a centralized clearinghouse to help distinguish the stackability, labeling, and reporting of multiple credentials (especially concerning IPEDS data). One staff member described this: “Ideally, as this future national data warehouse is developed, this would allow students to view and report in-time wages for these short-term certificates. This would be especially valuable for academic departments that are looking to expand their offerings into short-term certificates or industry certifications.” Additionally, another interviewee emphasized the importance of creating a national centralized clearinghouse by stating that “most people in nondegree programs might not even know what IPEDS is, let alone how to report the data. Additionally, IPEDS might not accurately capture the real population that is served by the college.” Many of these challenges in how to capture and report data on nondegree programs were also discussed in the IPEDS Technical Review Panel, which was held in November 2022 (IPEDS TRP 2022). The issues in measuring the length, rigor, duration, and difficulty of these nondegree credentials are questions that need to be addressed as future data warehouses and expansions of IPEDS are sought.

PROGRAM EVALUATION AND OUTCOMES

Thorough and effective program evaluation is crucial for enhancing the quality of programs. Nondegree programs generally offer more flexibility in their design when compared with that of degree programs, which allows for easier modification based on evaluations of existing programs. This flexibility provides a greater opportunity to incorporate the findings from program evaluations into the design and implementation of future programs. The interviews concluded with questions about institutional experiences with program evaluations and outcomes, including:

- How does your institution evaluate the outcomes of nondegree programs?
- Are there defined criteria, frameworks, or measures used to evaluate the programs?
- Does your institution use labor market information in the program evaluation?
- What program outcomes are reported? How do students view the value of the programs offered?

All of the interviewed institutions had some kind of framework in place to evaluate the success of their nondegree programs. The metrics used for those program evaluations varied by institution and sometimes by each program. For example, at DMACC, nondegree program outcomes are assessed with metrics set by local, state, federal, or industry requirements as well as internal evaluations that consider program participant feedback. DMACC also tracks indicators, such as the number of referrals from students and positive relationships with employers, to determine the credibility and success of the programs offered. USC evaluates the outcomes of its nondegree programs based on criteria established by individual schools or programs. For example, the USC Marshall School of Business uses the Kirkpatrick Model and often looks to employers for feedback on program success because they do not have to meet accreditation requirements. The USC Gould School of Law conducts end-of-program evaluations to assess outcomes. Miami Dade College also allows each program to have its own key performance indicators, such as semester-to-semester retention.

Most institutions view students' positive employment outcomes and economic mobility as the primary goals of their nondegree programs. To assess the effectiveness of these programs, they sought to examine post-completion outcomes. However, they encountered several challenges in doing so. The main challenge was in obtaining data on students' labor market outcomes and the results of certifications or licensure exams administered outside of the college. Institutions have relied on students to proactively inform them about their exam and employment statuses, but they have found it difficult to maintain communication with students and to encourage self-reporting. As a result, institutions often rely solely on feedback from successful students, which complicates their ability to accurately assess overall outcomes. Additionally, some institutions are evaluating the outcomes of their nondegree programs by focusing on short-term measures and during-program indicators rather than long-term workforce outcomes. This includes looking at program completion data, classroom offerings, student satisfaction surveys, and other feedback received at the end of the program. Based on these evaluations, institutions reported positive feedback from students who participated in their nondegree programs. For example, DMACC participants noted that students often entered noncredit courses with initial misconceptions but came to value them highly, appreciating in particular the quality of instructors, curriculum, and preparation for the workforce.



CONCLUSION

This brief summarizes the key lessons and insights from the five focus group discussions, highlighting critical themes in nondegree program implementation across five key areas: program design and implementation, student recruitment and support, resource allocation, data management and reporting, and program evaluation and outcomes. The perspectives gathered from the five institutions emphasize the rapidly evolving nature of nondegree programs in meeting the shifting needs of learners, industries, and communities. Additional common themes that reflect the nimbleness, adaptability, and workforce labor alignment of nondegree programs include:

- **Alignment of nondegree programs with industry demands and workforce needs** as institutions strategically design and implement programs to ensure that participants acquire relevant skills and credentials, which can lead to meaningful employment opportunities. This approach highlights the commitment of these institutions to providing accessible and practical education pathways that support economic growth and individual advancement
- **Flexibility and innovation in program design**, particularly in response to market trends and emerging technologies. Institutions are adapting their recruitment, curriculum development, and delivery methods to stay relevant and responsive to changing educational landscapes
- **Emphasis on the value of collaboration with external partners**, including industry stakeholders and community organizations. This collaborative approach ensures that nondegree programs are informed by real-world needs and industry standards, which enhances their effectiveness and relevance

While nondegree programs play a crucial role in workforce development and economic mobility, there is inconsistency in the understanding and assessment of those programs due to their diverse nature as well as the lack of standardized data collection and reporting structures. Focus group discussions highlighted considerable challenges in consistently gathering data on nondegree programs and achieving a cohesive classification framework, which in turn impacts how these programs are classified and evaluated. These challenges include:

- **Local and industry-specific customization:** Many nondegree programs are highly localized and tailored to specific workforce needs, which makes it difficult to establish national or even regional benchmarks. The diversity in institutional motivations—such as workforce retention, industry partnerships, and revenue generation—further complicates classification efforts.

- **Absence of standardized program characteristics:** Unlike degree programs, which follow uniform credit-hour guidelines and accreditation standards, nondegree programs vary widely in length, instructional methods, assessment criteria, and learning objectives. This variability makes direct comparisons difficult both within and across institutions.
- **Fluidity and rapid program evolution:** Nondegree programs frequently undergo modifications, and new programs emerge in response to industry needs while outdated ones are phased out. This constant state of flux makes longitudinal tracking and classification challenging, as programs that exist today may no longer be relevant in a few years. Additionally, each institution has different motivations and contexts for offering these programs. These diverse motivations lead to varying program goals, such as retraining individuals, preparing workers for entry-level jobs, supporting career development, promoting equity, creating pathways to degree programs, seeking revenue opportunities, forming funding partnerships, and contributing to the economic development of their communities.
- **Fragmented and inconsistent data reporting:** Traditional degree programs benefit from structured data collection systems—such as IPEDS—that track enrollment, completion, and outcomes. In contrast, nondegree programs lack centralized data infrastructure within institutions; although, IPEDS does collect institutional data on certificate programs. Unlike degree programs—for which data is typically managed at a cohesive institutional level—the responsibility for reporting nondegree data often falls to the individual departments and schools that oversee these programs. This can lead to significant disparities in data quality and availability.
- **Limited post-completion tracking and certification data:** Many nondegree programs lead to industry-recognized certifications, but institutions often do not receive data on student outcomes from certifying agencies. Additionally, insufficient communication with students and employers results in incomplete data on economic and employment outcomes. Both student engagement outside of the program and post-program engagement tend to be relatively low, which causes employment and wage data for nondegree graduates to remain incomplete; this makes it difficult to measure program outcomes consistently.
- **Potential for data misinterpretation:** The rise of microcredentials and stackable credentials presents another challenge, as completion numbers may appear artificially inflated; this further complicates comparisons within and across institutions. Some programs report only pass/fail rates instead of individual student results.

These challenges provide valuable perspectives that can inform future efforts to enhance data infrastructure and improve program outcomes. Further, they also illustrate why integrating nondegree programs into a structured classification system, such as the Carnegie Classifications, is not straightforward and may not be feasible without significant reforms. The fundamental characteristics that make nondegree programs effective—their flexibility, responsiveness, and industry alignment—also make them difficult to categorize within traditional higher education taxonomies. While there have been discussions about enhancing IPEDS to improve data tracking, much of the responsibility for evaluating programs and collecting completion and outcome data still falls to individual institutions and sometimes to state education agencies that provide funding support.

For classification to be possible, a standardized framework for defining, tracking, and reporting nondegree credentials would need to be developed. However, doing so would require substantial institutional coordination, data infrastructure improvements, and agreement on key metrics—efforts that remains hindered by the inherent variability of nondegree offerings. Until these foundational issues are addressed, nondegree programs will continue to operate in a decentralized manner, which makes their classification within higher education frameworks a challenge. Additionally, it is essential to implement a data reporting system to track post-completion outcomes of nondegree programs, as those outcomes are considered one of the primary goals of nondegree programs. The ongoing complexities surrounding nondegree programs underscore the need for further discussion on whether—and how—they can be meaningfully categorized in the broader postsecondary landscape.

Although nondegree programs face many challenges in design variation, data reporting, and classification, they continue to provide an innovative model for how institutions build and evaluate new programs. Nondegree programs frequently result in the types of positive outcomes that policymakers and education stakeholders are pressuring colleges and universities to demonstrate. These include skills trainings in high-demand fields, pathways to career opportunities, curricula refined with employer input, and shorter time frames to completion.

Interview respondents emphasized the strength and value of these nontraditional academic programs, and they noted that students realize the multifaceted value of their education through benefits such as the ability to customize and stack their skills training as well as employer and industry investment in their future. These benefits are strengths of economic mobility and workforce training that institutions should maintain as they design, improve, and evaluate their nondegree programs. Doing so is especially important given that nondegree programs provide enrollment pathways for students who have often encountered multiple barriers to education and employment.

REFERENCE

IPEDS TRP (Integrated Postsecondary Education Data System Technical Review Panel). 2022. *Report and Suggestions from IPEDS Technical Review Panel #67: Nondegree Credentials*. https://edsurveys.rti.org/IPEDS_TRP_DOCS/prod/documents/TRP67_Summary.pdf.

