

CREDENTIAL CONFUSION: A CALL FOR UNIFORMITY IN PRACTICE AND TERMINOLOGY

Insights from a June,
2023 Survey

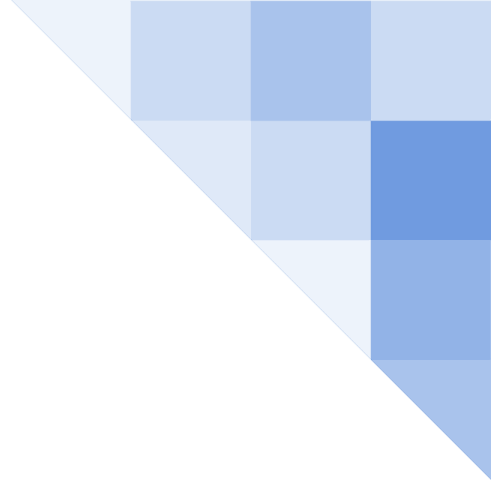


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“As colleges and universities continue to confront digital transformation, they must ask themselves, ‘What does our core product — the educational credential — evolve to look like in a more data-rich, technology-centric world?’ Sean Gallagher - August 10, 2023”



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Executive Summary

On October 31, 2023, the governor of Minnesota signed an executive order removing the requirement for degrees for 75% of state-government jobs.¹ Minnesota joins other states and private entities, such as Walmart, Google, IBM, Starbucks, Costco and Amazon, in eliminating the need for a four-year degree for many positions. Instead, skills, experience and potential will be the focus of the hiring process. As an example of the diminishing role of the four-year degree for some employers, Google specifically answers the question, “Do I need a computer science degree to be a Google software engineer?” with “No, a CS degree isn’t required for most of our software engineering or product manager roles.”²

Due in part to these changes in hiring requirements, the value proposition of a traditional degree, in particular a bachelor’s degree, is rapidly changing for many learners. Higher education also needs to adapt - and quickly. One of the ways it must adapt is by providing a skills-based assertion of a learning document. New credentials (e.g. “assertion of learning”) are needed to meet the changing needs and requirements of the workforce and the economy.

In order to make these changes successfully, higher education must come to an agreement on the terms used to describe and characterize these new assertions of learning, along with adopting a common mode of transport for these credentials. Higher education already uses agreed-upon nomenclature for established credentials, such as associate’s, bachelor’s, master’s degrees, and a transcript is the usual mode of transport for these credentials.

In June 2023, AACRAO conducted a survey to determine if the terms for various credentials, referred to as *innovative credentials* in this report, are defined and used differently, based on their institutional context. The survey queried respondents about six terms: Comprehensive Learner Record (CLR), Learning and Employment Record (LER), Badges, Microcredential, Alternative Credentials, and Digital-Credential Wallet. The terms cover most of the ways innovative credentials and their digital means of transport are described and defined. See Appendix B for term definitions as included in the survey.

In the realm of higher education, the term *credential* is used inconsistently. Adding terms, such as *digital* and *alternative*, complicates the conversation. Survey results reveal this is also true among AACRAO member institutions.

Although the term *alternative credential* was used in the survey, we have chosen to identify these credentials as *innovative credentials* for this report. One of the definitions of *alternative* is “different from the usual or conventional: such as existing or functioning outside the established

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<https://www.jsonline.com/story/news/nation/2023/10/31/minnesota-state-jobs-no-college-degree-required/71392648007/>

² <https://www.google.com/about/careers/applications/how-we-hire/>

cultural, social, or economic system”.³ *Innovative credentials* represent an evolution in the recognition of learning and are rapidly becoming mainstream. To keep referring to them as “alternative” is a misnomer.

Innovative credentials are typically a combination of digital, verifiable, and stackable credentials. The goal is to use various credentials to demonstrate a range of skills and competencies. However, innovative credentials are not exclusively transported in a digital format. Some remain hard copy, and some are offered in both formats. To refer to them as “digital credentials” is misleading.

The survey collected 322 responses from 48 states, Guam, Puerto Rico, the District of Columbia and five Canadian provinces. Responses serve as a valuable benchmark.⁴ They also provide direction for AACRAO in terms of how best to assist our members in understanding and navigating the evolving topic of the future state of learner records.

Key Findings

- Higher education currently conflates the meaning of digital credentials and alternative credentials. Not all alternative credentials are digital. It also melds these definitions with digital modes of transport, such as the Learner and Employment Record (LER).
- There is a lack of clarity about the meaning, purpose, and value of nontraditional ways to assert learning and/or document skills and competencies for learners.
- Agreed-upon definitions are needed so that new ways to assert learning can be evaluated and implementation rates can be tabulated.
- AACRAO members strongly believe registrars should be instrumental in shaping the governance, policies, and practices surrounding innovative credentials, as well as the use of digital transport methods at higher education institutions.
- Data retrieved from the survey demonstrate increased activity by responding institutions in the area of evolving innovative credentials and their digital methods of transport, but definitional challenges are evident.
- It is important for AACRAO members to help guide the higher education conversation regarding distinguishing between a credential – a bachelor’s or master’s degree, certificate, nanodegree – and the transport mechanisms used to manage and transport credentials – transcripts, diplomas, badges, LERs. Consensus around terms and definitions will help clarify how learning records empower the social, economic, and career mobility of our learners.

³ <https://www.merriam-webster.com/dictionary/alternative>

⁴ Characteristics of these institutions are provided in Appendix A.

1. Definitions and Terms Are Important

There has been a conflation of the term “credential” with the methods used for transporting a credential. After analyzing data from the survey, it was determined we need to separate these data into two groups:

- Innovative Credentials
- Methods of Transport

This will clarify the meanings of these two terms and help us differentiate between them in higher education discussions.

In higher education, a *credential* is defined as a “document certifying a learner has achieved a high level of knowledge.” AACRAO further asserts that a credential confirms a learner’s qualifications, abilities, or authority. It is a form of documentation by a trusted third party, such as a college or university, that has the authority or accepted competence to issue such a document.

Based on terms used to describe methods of transport (e.g. “platforms”) for innovative credentials, survey respondents were asked about the current state of development for each of these descriptors. Less than 15% of the institutions are “actively exploring or implementing,” or have already implemented, Learning and Employment Records (LERs) and/or digital credential wallets. Figure 1.

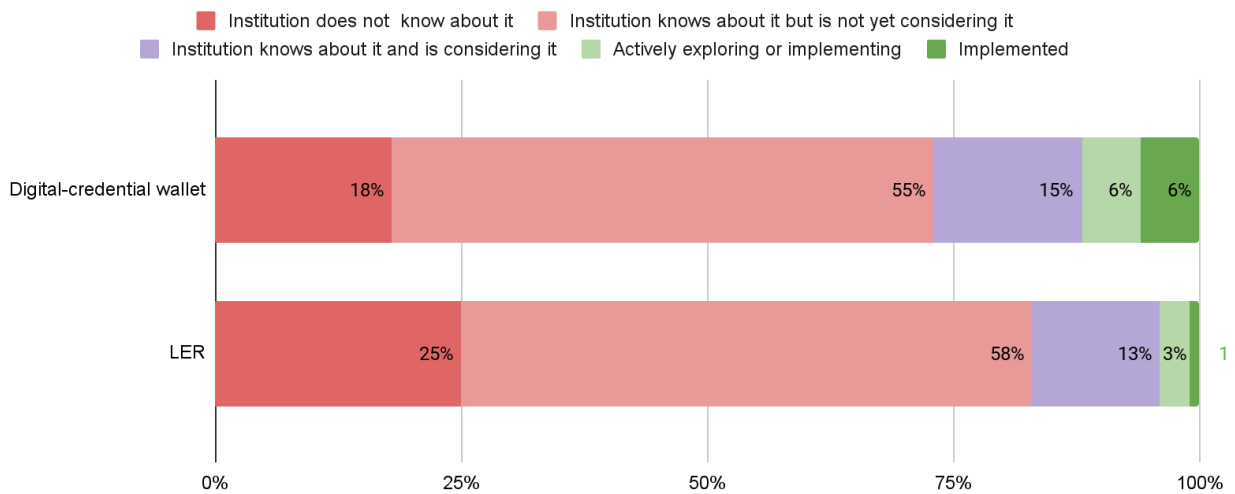
Some may wonder why the Comprehensive Learner Record (CLR) is not an included term. Although included in the survey, exclusion of the term from this report is intentional. Higher education-centric terminology changes over time, sometimes rapidly. Such is the case for the CLR. Some educators use the term to mean a digital platform used to transport a credential. Others use it to describe a set of data standards. Some use the term interchangeably. In reviewing free-text responses in the survey, it became apparent many respondents were unable to discern the difference between the various definitions of CLR, so the data is not reported.

AACRAO has embraced the meaning of the term CLR as it is currently defined by 1EDTECH to mean a set of “technical specifications designed to support traditional academic programs, co-curricular and competency-based education, and employer-based learning and development.”⁵ AACRAO chose this path because the “LER” has become more prominent in public dialogue regarding trusted assertions of learning and competencies.

⁵ Source:

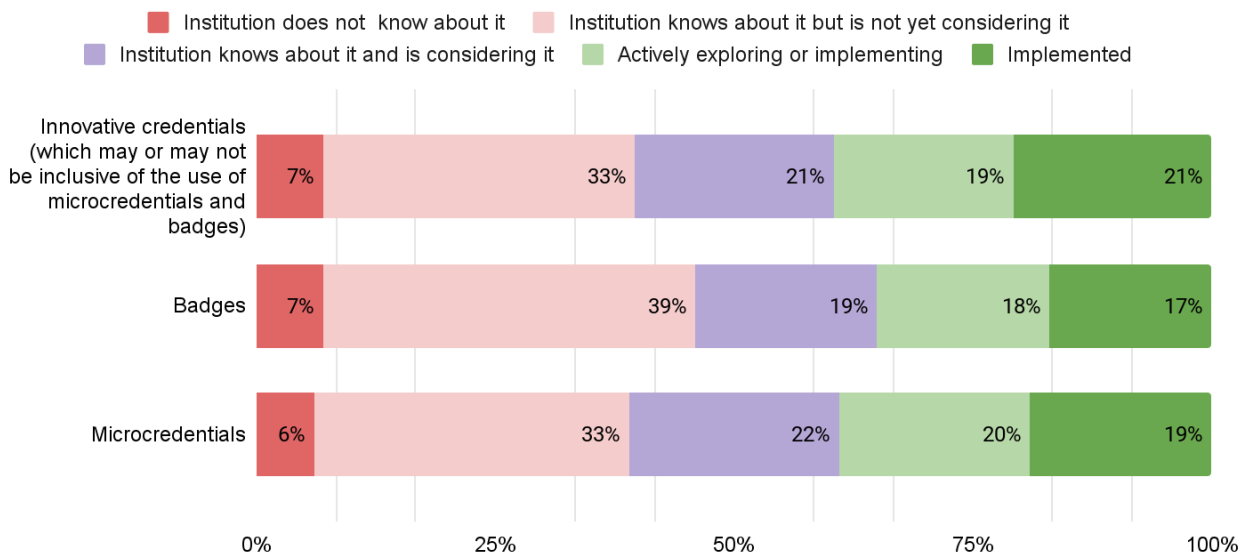
<https://www.1edtech.org/clar/faq#:~:text=The%20CLR%20is%20a%20technical,achievements%20in%20verifiable%20C%20digital%20form.>

Figure 1: Description of the current state of development of digital platforms for credentials



Overall, innovative credentials – microcredentials and badges⁶ specifically – are being more widely adopted than digital methods of transport (“platforms”). About 40% of respondents stated their school is “actively exploring or implementing,” or has already implemented, these types of credentials. Figure 2.

Figure 2: Description of the current state of innovative credentials



⁶ There are multiple understandings of badges. For more information on badges as a technical standard, see <https://www.1edtech.org/clr/faq#obIntro>

Based on survey responses and supporting data from focus group sessions held at the AACRAO Leadership meeting in June 2023, we hypothesize these various terms and definitions are being used interchangeably. Each institution is using one or more of these terms to describe their initiatives. While there is a technical distinction among all the survey terms, “badges,” “microcredentials” and “alternative credentials” are used most frequently. As such, responses reveal **over 60% of respondents’ institutions are considering, exploring, or implementing some form of innovative credential.**

2. Digital Transport Methods Help Support Learning Mobility

Learning mobility plays a crucial role in making education and training systems more inclusive, flexible, and oriented toward the needs of learners. *Learning mobility* refers to many aspects of digital transport, including:

- moving academic credit among and between institutions
- salvaging credit for learners who have some college or who have been displaced by world events
- creating new opportunities for learners to attain credit for prior learning
- developing new structures and systems to move learners' skills data across systems at scale

Learning mobility also refers to the ability of learners to move seamlessly across different learning environments or among institutions, whether these learning environments are formal or informal.

Digital transport methods (e.g. digital platforms) for credentials can make learning mobility easier for several reasons, as described below.

Portability. Digital platforms allow credentials to be easily carried, shared, and verified. Portability ensures a learner can quickly provide evidence of their skills and achievements whenever and wherever needed.

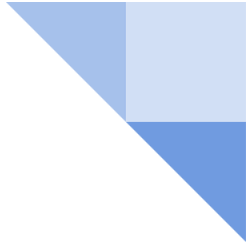
Instant verification. Traditional paper credentials may take time to verify. Digital platforms often allow credentials to be instantly authenticated, reducing the time and potential obstacles for learners moving between institutions or entering the job market.

Flexibility and modular learning. Digital platforms can communicate a wide range of achievements, from completing massive open online courses (MOOCs) to more traditional degree programs.

Personalized learning paths. Digital platforms allow for the recognition of smaller, more specific achievements. This may provide learners with data to discover and design their own learning paths. As learners move, they can take personalized paths with them, ensuring continuity in their educational journey.

Reduced risk of fraud. Digital platforms can employ advanced cryptographic techniques, making them tamper-evident. As a result, institutions and employers can trust the validity of a credential, which aids in the seamless movement of learners.

Up-to-date information. Digital platforms can be easily updated with new credentials to reflect new achievements or skills.



Possible increase in global recognition. With digital platforms, learners can earn and track credentials from institutions worldwide. Those achievements may be more easily shared, recognized, and accepted across borders.

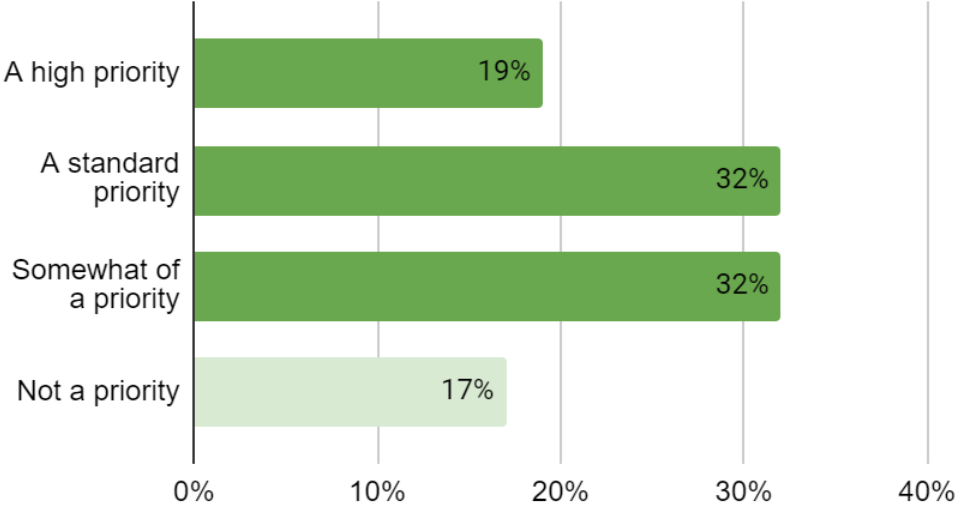
Credential persistence. Digital platforms offer learners ownership of their learning records and continued access to official records.

In summary, digital platforms can streamline and enhance the process of recognizing, sharing, and verifying a learner's achievements. This can make learning mobility more efficient and effective.

3. Learning Mobility Is an Institutional Priority

Given the close connection between learning mobility, innovative credentials, and digital platforms, survey participants were asked how important learning mobility is to their institution. For 83% of respondents, learning mobility is considered a priority at their institution. Figure 3.

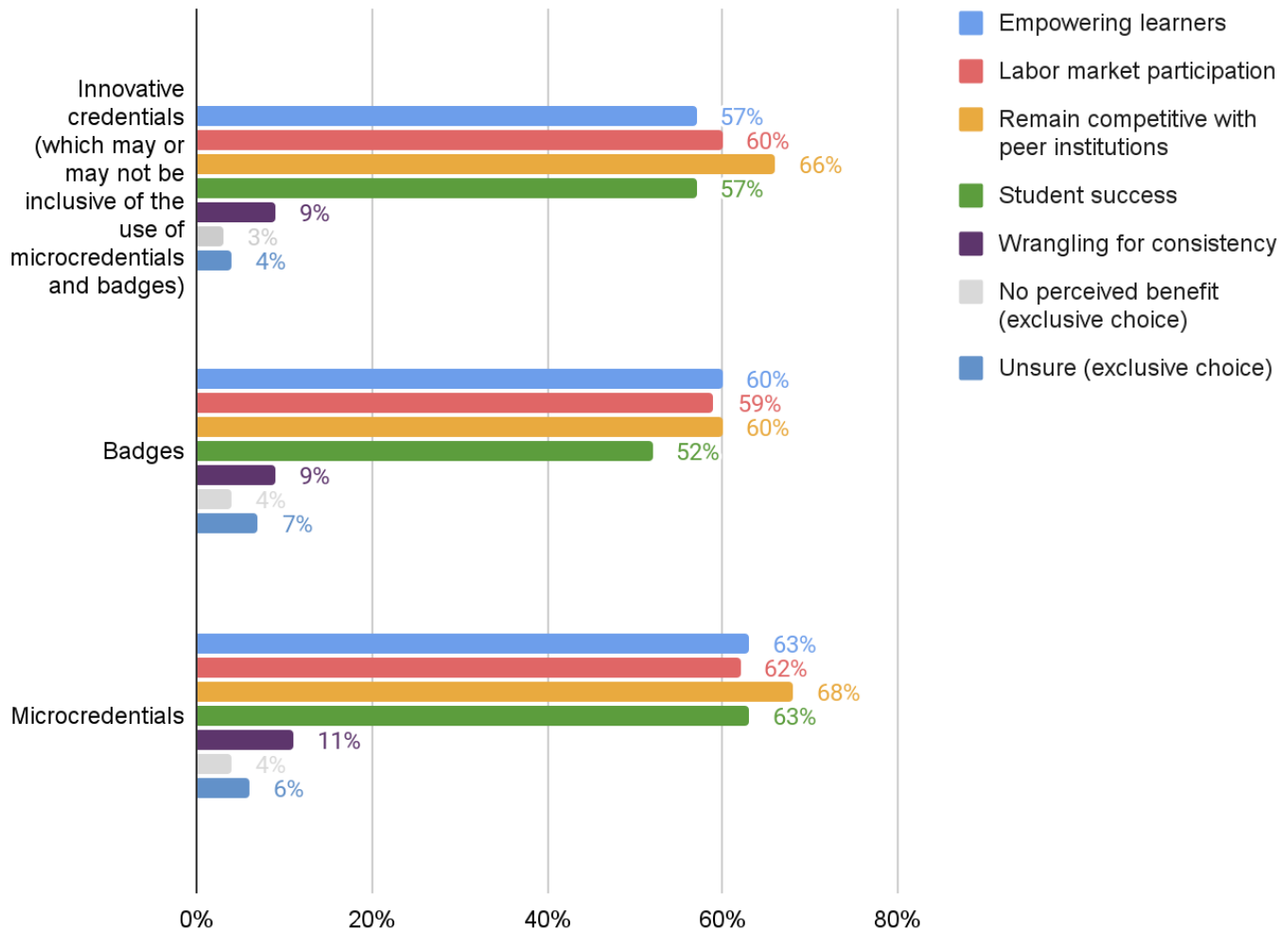
Figure 3: Perceptions of the priority of learning mobility at the institution



4. Perception of Potential Benefits

The respondents' perceptions of the potential benefits associated with innovative credentials are relatively evenly distributed. Student success, learner empowerment, labor-market participation, and peer competition were generally equally important within the credential categories. Figure 4.

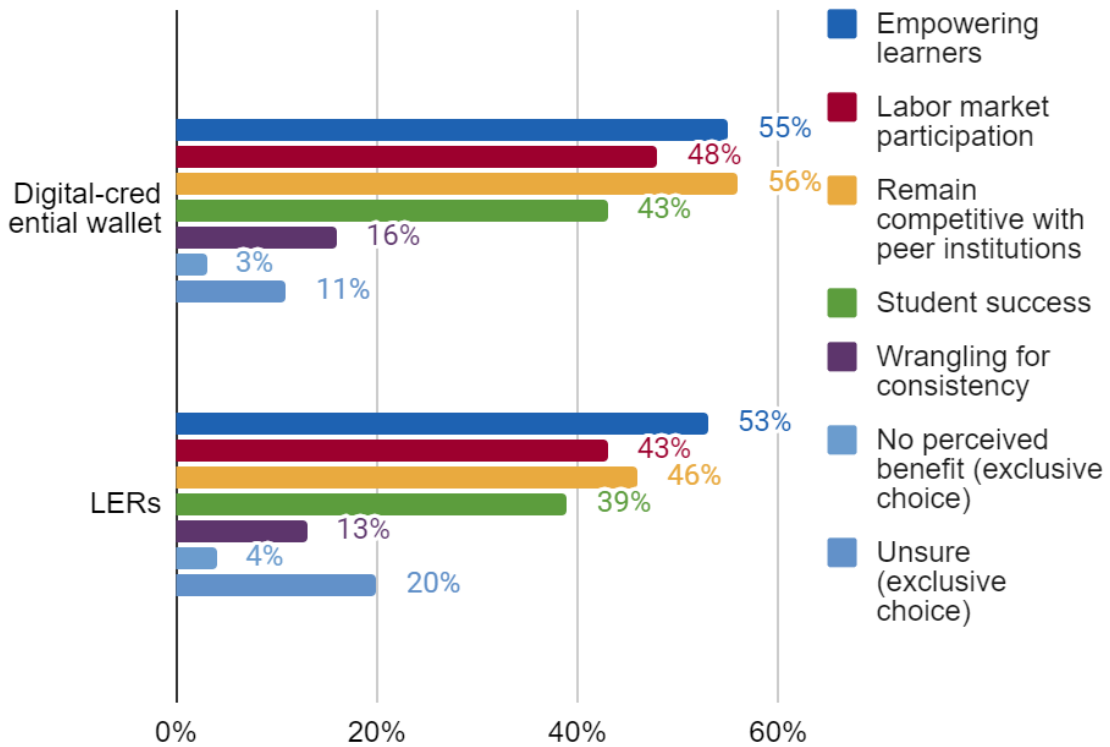
Figure 4. Perceived benefits of implementing innovative credentials (all that apply)



However, regardless of the perceived potential benefit category, the trio of innovative credentials, badges, and microcredentials seemed to resonate more strongly with respondents than LERs and digital credential wallets. Figure 5. Some respondents believe LERs and digital credential wallets have fewer perceived benefits. This mirrors the pattern found in survey data about the institutional implementation status of these platforms. We believe that confusion

about terminology impacted the responses, but our overall conclusion is that innovative credentials are perceived to be beneficial.

Figure 5. Perceived benefits of implementing digital platforms (all that apply)



5. Use Case Perceptions of Innovative Credentials and Digital Transport Platforms

No Perceived Use Case for Either

Many respondents expressed the opinion there was “no use case” for innovative credentials or digital transport platforms for some stakeholder groups. The statistics presented below indicate the percentage of respondents who believe there is “no use case” for innovative credentials or digital transport platforms for the particular stakeholder group listed.⁷

- 61% for information-technology (IT)
- 58% for institutional-research (IR)
- 57% for admissions
- 40% for faculty
- 43% for academic-advising
- 36% for student-life
- 25% for the registrar’s office
- 22% for employers
- 22% for professional and continuing education units
- 20% for career-services
- 14% for learner

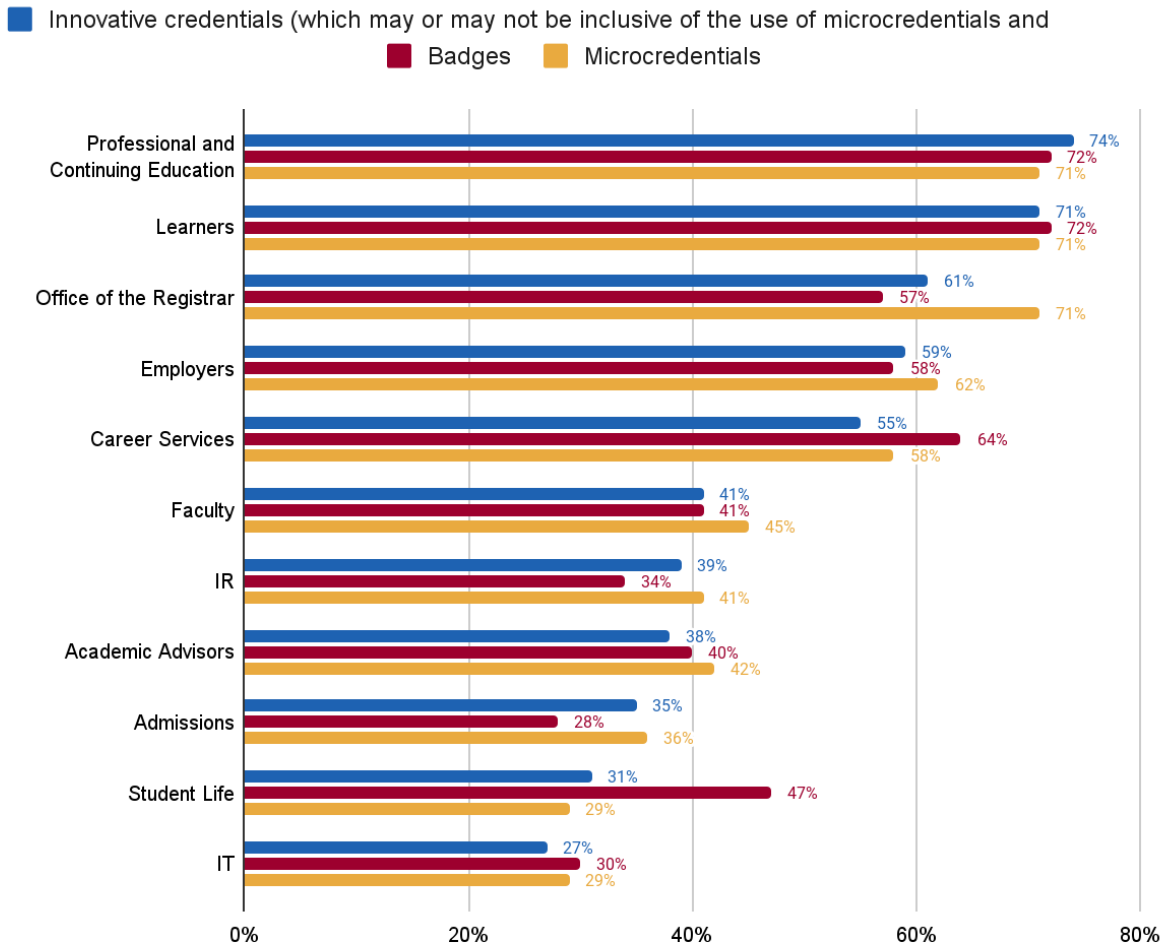
Perceived Use Case for Various Stakeholders

Figures 6 and 7 highlight the data among respondents who perceive *there is* a use case for innovative credentials *and/or* digital transport platforms among various stakeholders.

Among respondents who perceive a use case exists for innovative credentials, a majority perceive stakeholders with the strongest use case include professional and continuing education units, the office of the registrar, learners, employers, and career services. Figure 6.

⁷ Note: Whether the respondent is part of the stakeholder group listed.

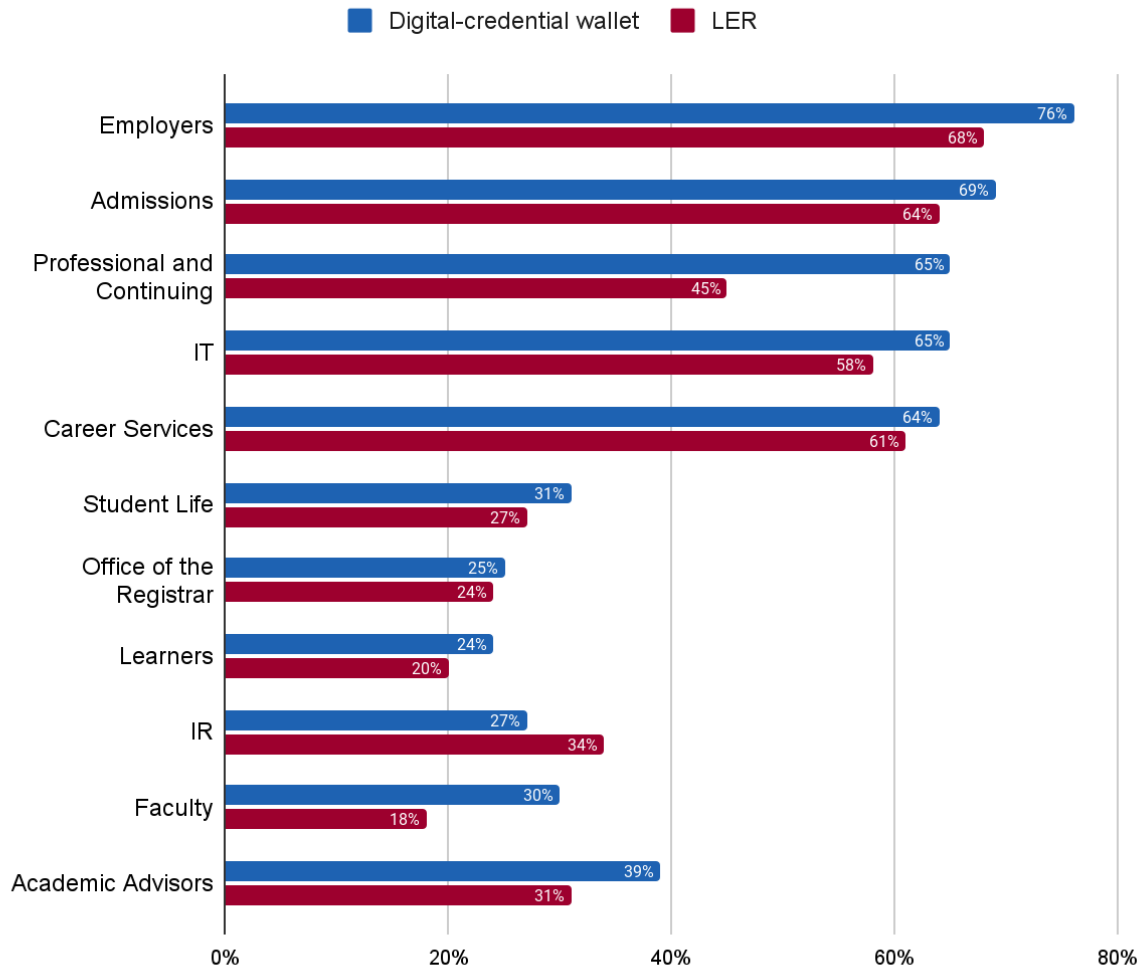
Figure 6: Respondents perceptions of which stakeholders should use innovative credentials by type among those who perceive a use case exists (all that apply)



Among stakeholders with perceived use cases for digital transport platforms, learners were ranked in the bottom four of respondents who believed a use case exists at all. Figure 7. Employers, admissions, professional and continuing education units, information technology and career services are perceived to have the strongest use case for digital transport platforms.

From these data, a question arises. If institutions do not believe there is a high perceived value for learners to use digital transport platforms, what is the motivation for learners to do so? If learners do not adopt these platforms, other stakeholders will not be able to use them in their decision-making processes regarding admissions and employment.

Figure 7: Respondents' perceptions of which stakeholders should use digital-transport platforms by type among those who perceive a use case exists (all that apply)



6. Challenges and Concerns Regarding the Implementation of Innovative Credentials and Digital Transport Platforms

Respondents were asked to list the challenges and concerns associated with implementing innovative credentials and new digital platforms to transport them. Overarching concerns include weakening degree programs, balancing traditional degrees with innovative credentials, overcredentialing and potential misuse, and perception of these credentials as a "shiny object."

The primary concerns about implementing digital transport platforms include the time required to implement them, return on investment (ROI), perceived value, and the value for students and employers. Below are some of the major challenges, objections, and concerns respondents cited associated with implementing innovative credentials and new methods to transport credentials at educational institutions. They are listed in order of frequency of occurrence.

Financial and resource limitations

- limited funding and resources
- ROI and financial concerns
- need for dedicated resources

Technological infrastructure and resources

- lack of necessary technology infrastructure
- bandwidth, maintenance and tracking
- insufficient budget for technology support
- interoperability with existing systems

Communication and adoption

- challenges in communication and buy-in
- advisor advocacy and adoption by graduate students
- general acceptance and recognition

Accreditation and uniformity

- inconsistent industry recognition
- lack of standardized definitions
- accreditation and governance concerns

Curriculum and academic significance

- potential devaluation of degree programs
- integration into the curriculum
- overcoming faculty skepticism

Quality and evaluation

- concerns about credential quality
- development of assessment and awarding practices
- authentication of nonacademic components

Value for students and employers

- uncertainty about intrinsic worth
- lack of concrete data on utilization
- employer interest in these credentials

Governance and oversight

- governance complexities
- management-and-storage framework
- necessity for standardized protocols

Privacy and security

- concerns about privacy and security
- technical security issues

Conventional vs. nonconventional

- resistance to transformative changes
- challenges in status differentiation

Cultural and institutional factors

- alignment with institutional culture
- lack of demand or endorsement within an institution

Student and employer perceived value

- ambiguity regarding credential significance
- lack of evidence on utilization and recognition
- employer interest in these credentials

7. Interoperability of Digital Transport Platforms with Other Systems

There is a strong desire among respondents for digital methods of credential transport to be seamlessly integrated into a wide range of systems, including social media, HR, educational, and verification systems. Interoperability is believed to be essential for new digital transport platforms to be effective and widely adopted.

Interoperability is the fast, easy transfer of data between systems by way of a common set of data standards, such as definitions, codes, and technical specifications. It will enhance the value and utility of digital transport platforms, aligning them with the evolving needs of learners *and* institutions. Some key points on interoperability from the data include the following:

Integration with social media and job search platforms

- the need for interoperability with major social media outlets, such as LinkedIn, Facebook, and X (formerly Twitter), as well as job search platforms

Integration with HR systems

- the need for digital transport platform information to be easily shareable and accessible for employment purposes

Integration with transcript vendors and degree verification systems

- interoperability with transcript vendors, such as Parchment
- Interoperability with verification systems, such as the National Student Clearinghouse, for degree verifications

Connectivity with learning management systems (LMS) and student information systems (SIS)

- interoperability with LMS platforms is important to integrate digital transport platform functionality with existing education systems

In summary, survey responses underscore the multifaceted nature of interoperability for campus digital transport platforms. There is consensus on the importance of features, such as linking verified badges, sharing content, and adhering to standards. Digital transport platforms should also be interoperable with many external systems. Privacy and compliance considerations are paramount in any integration effort.

8. Opinions on the Impact on Revenue Streams with Implementation of Innovative Credentials and/or Digital Transport Platforms

Respondents were asked if the implementation of innovative credentials and/or digital transport platforms would have an impact on current revenue streams. Opinions about the financial implications vary widely. The outlook ranges from optimism about new revenue streams to concerns about potential financial burdens or negligible impacts. At a high level, survey responses found that:

- 30% see a potential for a decrease in revenue
- 44.2% see a neutral or potential increase in revenue
- new awards may disrupt the current business/operating model

Feedback about anticipated revenue changes due to the implementation of innovative credentials and/or digital transport platforms is summarized below.

Increase in revenue

- additional revenue, particularly if there is a charge for the service
- an avenue to diversify revenue streams
- potential revenue increases via verification processes or service fees for new record types

Decrease in revenue

- reduced demand for traditional services, potentially reducing income
- costs surpassing the potential revenue from new services

Neutral impact

- little to no impact on revenue
- traditional academic transcripts will remain the standard and a primary revenue source

Operational concerns

- increased workload without commensurate revenue
- the need for additional staff to manage innovative credentials
- losses in personnel or other essential services due to decreased revenue

Unsure/unknown

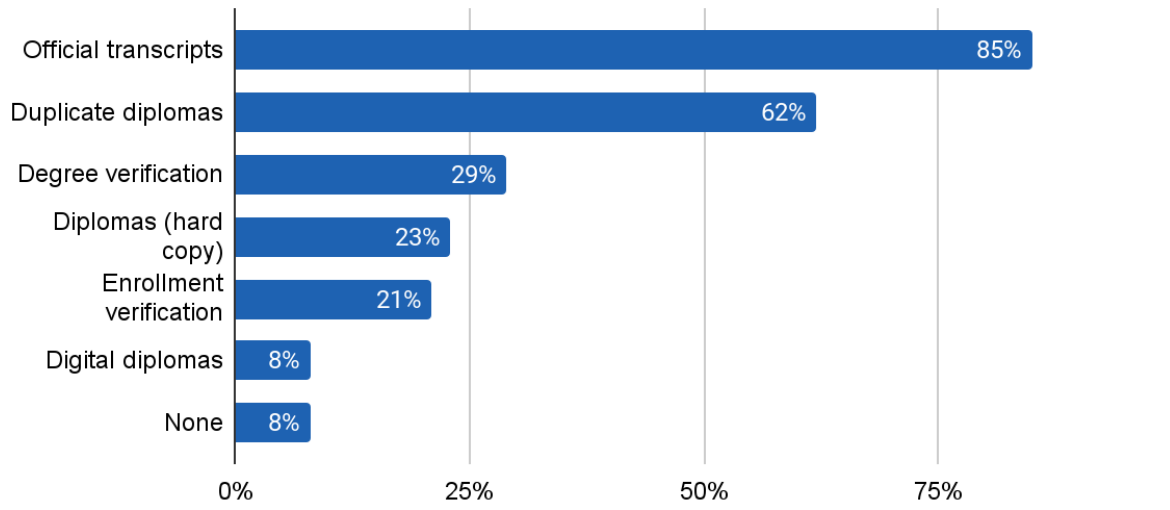
- uncertainty about potential financial impact

Philosophical stance

- student benefit rather than revenue

Figure 7 represents current revenue sources associated with academic records.

Figure 7: Current Revenue Sources (all that apply)



9. Role of the Registrar

Respondents generally believe the registrar should have an integral/active role but not necessarily a leading role. From their perspective, registrar involvement is needed to infuse and provide:

- functional expertise
- technical expertise
- standard building
- compliance
- continuity
- collaboration

Some believe the registrar should lead the process only if outputs are going to be part of the official student record. A few respondents believe the registrar should not have a role in leading these initiatives.

10. Conclusions and Implications for Practice

There is a need for clear, agreed-upon, shared terminology for innovative credentials and the digital platforms that transport these credentials. This is a key takeaway from this data. Other areas from which to draw conclusions from the data are discussed below.

Challenges

Respondents were asked about the challenges associated with planning and implementing innovative credentials. Challenges include cost, time, resources, governance, quality, consistency, authentication, validation, maintenance, tracking, recording, cataloging, mapping, storing, extracting and integrating these types of credentials. Concerns suggest there is need for more information about the ROI, the demand for the credentials moving forward, and ways to develop and manage digital credential platforms.

Learner/Reviewer Perspectives

While proponents of learning mobility often suggest employers are a key driver of this space, many respondents expressed interest in specifics. They want to understand *why* employers want opportunity providers to move in this direction with credentials. They want to know *what* employers want and *how* they want to receive it. There was considerable interest in the student/learner perspective and how the new forms of credentials might serve them. Respondents want to ensure learners have input and access to these new assertions of learning.

Principles and Business Objectives

The ability to transfer learning outcomes across different contexts and systems (learning mobility) is important for institutions of higher education. Over 80% of respondents consider it a priority. The role of innovative credentials in supporting learning mobility is not as universal. The value proposition for institutions adopting (or considering) a form of innovative credentials can be summarized around three dimensions:

- student service/empowering learners
- serving the community/labor market
- competitive differentiation

Specifying the rationale and return on investment for higher education to support alternative credentials remains elusive.

It is clear the use of credentials beyond the traditional set is on the rise in higher education. AACRAO members are engaged and paying attention. They are eager for additional resources and professional learning to support registrars as campus leaders.

Standards/Benchmarks of Practice

Learning mobility will be limited without standardized practices and shared guidelines. The lack of standardized practices impedes the process. There is interest in exposing existing best

practices and acquiring implementation guides to allow members to avoid pitfalls as they begin their own journeys.

Learning Records

There is no clear consensus about how to treat credentials beyond what historically appears on a transcript. Given the registrar's role in ensuring the quality and integrity of learning records, this is an important area to explore. Multiple respondents support more holistic learning records at their institutions. However, they see the registrar's ownership of maintenance and stewardship related to learning records as limited to academic and credit-bearing records. Others wonder about the responsibility for ensuring future records containing noncredit and nonacademic credentials are trusted by external stakeholders, such as employers.

If the Office of the Registrar is not charged with this, who will be responsible?

Appendix A: Characteristics of Participating Institutions

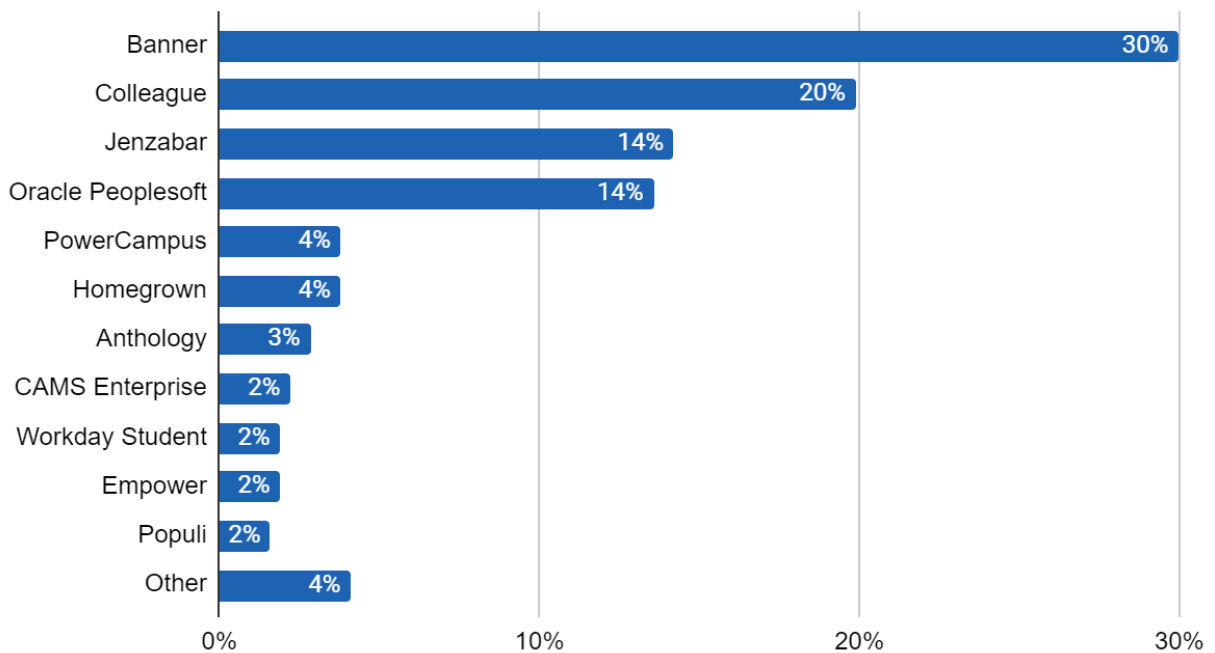
Learner population served

- 65% undergraduate and graduate and/or professional
- 25% undergraduate only
- 10% graduate and/or professional only

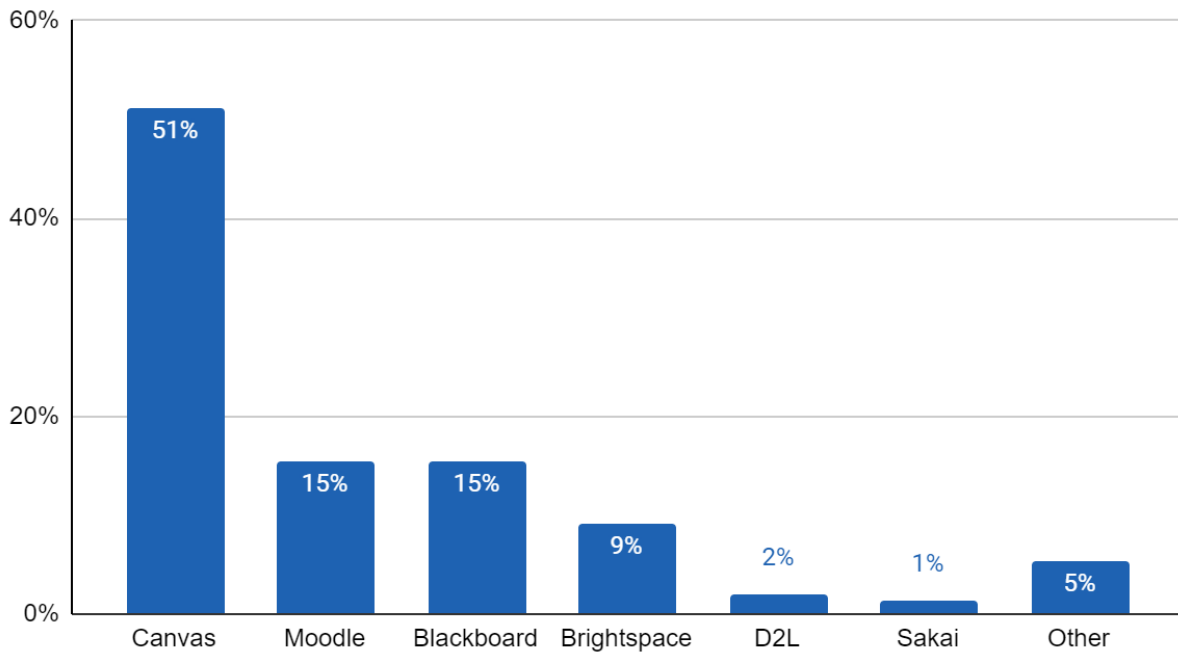
Reporting line of respondent

- 59% academic affairs
- 20% enrollment management
- 11% student affairs
- 6% chief executive (president, chancellor or institutional equivalent)
- 1% business affairs
- 3% other

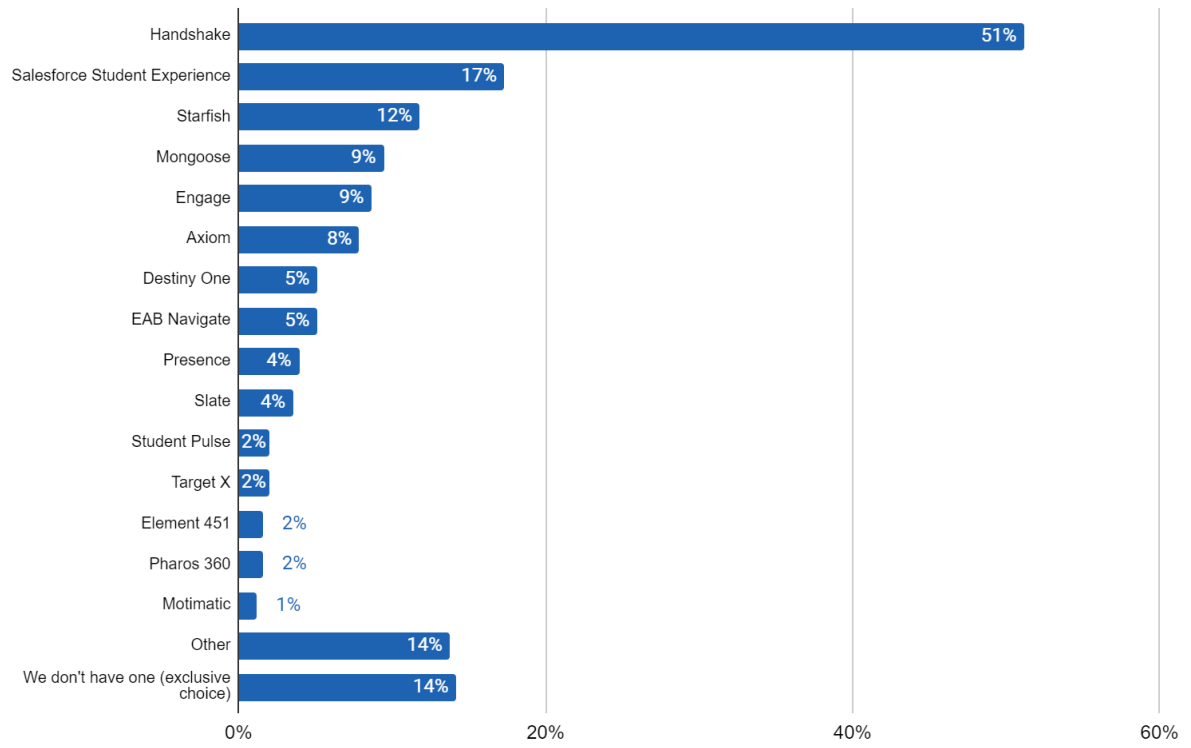
Student information system in use



Learning management system in use



Student Engagement Solutions in Use (all that apply)



Appendix B: Terms and Definitions from the Survey

Comprehensive Learner Record (CLR). Focuses on learning that occurs throughout the educational experience; usually includes multiple learner achievements.

Learning and Employment Record (LER). Comprehensive digital record of a worker's skills and competencies; an LER can document learning wherever it occurs and may include records of a person's credentials, degrees, and employment history.

Badges. Online representations that recognize skills, achievements, membership affiliation and participation; open badges are a type of digital badge.

Microcredential. An award that is a subset of learning achievements/outcomes that is less than a full degree; it may or may not be asserted with a recognized authority.

Alternative Credentials. Nontraditional (nondegree) credentials offered by institutions of higher education; may include myriad credit alternatives, such as MOOCs, microcredentialing (badges), credit- or noncredit-bearing certificate programs and other opportunities.

Digital-Credential Wallet. A software application that holds and secures a learner's skills and learning records, in much the same way a physical wallet holds money and credit cards.