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# AACRAO DRAFT

ALTERNATIVE CREDENTIALS:  
CONSIDERATIONS, GUIDANCE,  
AND BEST PRACTICES

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ALTERNATIVE CREDENTIALS  
WORKGROUP  
2021

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**DRAFT**

## **DEFINITIONS**

To aid in a common understanding, the following is a list of terminology utilized in this report:

- **Alignment:** The alignment field enables a badge to be aligned to recognized academic or professional standards and competency frameworks. A badge aligned to recognized standards is easier for badge consumers (e.g. hiring managers) to find and understand, which adds value for badge earners, consumers, and issuers. The contents of the alignment field should consist of a URL/URI that points at an element of an educational or professional standard, or at a competency definition used by multiple organizations. This will ensure that alignments are machine-readable (Badge Wiki)
- **Alternative Credentials:** Non-traditional (non-degree) credentials offered by institutions of higher education may include a myriad of credit alternatives including MOOCs, micro credentialing (badges), credit- or non-credit bearing certificate programs and various other opportunities.
- **Assertion:** Badge assertions are the unique instances of a badge that individuals earn. In other words, an assertion is the actual digital credential, or claim, that the earner receives and that serves as the record of their achievement. In addition to containing all the general information of the badge class, the assertion contains all the information that makes it a unique instance of the badge, e.g., the identity of the badge recipient, and optionally a link to evidence, a narrative, and an expiration date. (badge.wiki)
- **Certificates:** Certificates are academic programs (undergraduate, graduate or professional levels) based on a free-standing body of knowledge, often interdisciplinary in nature. They typically have a minimum number of credits, and are smaller than major programs of study. Completed certificates are recorded in student records and displayed on transcripts.
- **Comprehensive Learner Record (CLR):** Official document that seeks to capture, record, and communicate learning when and where it happens in a student's higher education experience. This includes learning outcomes from courses, program and degrees, as well as experience they have outside the classroom that help develop their career ready skills and abilities.
- **Consumer:** The audience who consumes credentials displayed by earners. Consumers can include employers, peers, offices of admissions, and other stakeholders.
- **Criteria:** Criteria list all of the detailed requirements that a badge earner had to meet in order to earn a given badge. Criteria are written for potential badge earners to provide them with as much specific detail as they need in order to earn the badge. Criteria are also written for badge consumers to provide a detailed account of exactly what badge earners had to do to earn a particular badge. If there is an assessment rubric associated

with the badge, consider sharing it here. A badge may be associated with multiple criteria, and the criteria may specify the evidence needed in order to demonstrate that criteria was met. Criteria should be measurable. (Badge Wiki)

- **Digital badges:** Online representations that recognize skills, achievements, membership affiliation, and participation.
- **For-credit:** Courses or other learning experiences resulting in a learner earning academic credit which displays on an academic transcript upon completion.
- **Issuer:** The name of the individual, entity, or organization that issued the badge. (Badge Wiki)
- **Learner and Employment Records (LER):** A generic term to describe digital spaces designed to help learners display their credentials and achievements. According to [Jobs for the Future](#), a LER is “a comprehensive digital record of a worker’s skills and competencies. LERs can document learning wherever it occurs, and they may include records of people’s credentials, degrees, and employment histories.” Badge backpacks, learner wallets, and Comprehensive Learner Records are all examples of LER solutions.
- **Learning Outcomes:** Measurable assessments and standards that articulate what earners have learned or can demonstrate upon completion of a credential.
- **Metadata:** Described as “the guts” of a digital badge which provides information regarding the requirements a learner demonstrated to earn the credential along with evidence of completion. Metadata, at a minimum, should include information regarding the learner, the issuer, the purpose of the credential. ([Credly](#))
- **Micro-Credential:** A competency or skills based recognition that allows a learner to demonstrate mastery and learning in a particular area ([Digital Promise](#)).
- **Not-for-credit:** Courses or other learning experiences that do not result in a learner earning academic credit, and which do not typically appear on an academic transcript, but which may be recognized through other means.
- **Open Badge:** A type of digital badge, open badges conform to the Open Badges standard, and can serve as portable credentials containing metadata that offer detailed information about the achievements being credentialed. Open badges contain metadata which provides additional information about the credential and how it was earned.
- **Open Standards:** Standards, intended for widespread adoption, made available to the general public in order to facilitate interoperability and data exchange among different products or services ([Wikipedia](#)). The Open Badges standard is an example of an open standard.

- **Portable:** Easily shared or transferred; digital credentials, especially, are designed to be accessible on demand to the learner, and easily uploaded or downloaded into other systems, documents, or media.
- **Requirement:** The learning experiences (courses, professional development, seminars, field studies, labs, portfolios, etc.) a learner must complete to earn a credential. Requirements may be included in criteria.
- **Stackable:** A modular approach in which credentials are designed to be combined or sequenced with other credentials, often in learning pathways.
- **Verifiable:** Confirmation that a credential is authentic, accurate, and legitimate and has been awarded by an institution to a specific learner. Verifiable credentials can protect against credential fraud and increase trust in the credential being awarded. Through the use of structured data, credentials can be verified and displayed in a consistent way ([Badgr](#)).
- **Verifiable Credential Model:** A specific and secure model that allows learners to access their badges to demonstrate their learning. The verifiable credential model is akin to open badge standards ([Concentric Sky and Badgr](#)).

## EXECUTIVE SUMMARY

AACRAO established the Alternative Credentials Work Group in 2021 in response to a rapidly evolving interest and movement in alternative credentials, namely micro-credentials and digital badges across the country and the globe. This interest and early adoption is coming out of higher education institutions, non-profit organizations, private industry and government entities. With an estimated 1,000,000 unique credentials in the United States alone, and over 43,000,000 Open Badges issued to earners ([Credential Engine](#)), the number of micro-credential programs being offered and digital badges being issued has been on a sharp rise, even without common definitions, standards or utility.

Higher education institutions and systems do not control or cannot curb what happens in the private sector, nor is there a strong desire to do so. However, finding a way to co-exist in this space needs to be realized. Creating a common understanding and standards behind smaller and bite-sized teaching and learning opportunities offered by colleges and universities will help lay the foundation for a more successful expansion and adoption of these newer credentials. Such efforts will not only help promote common definitions and use cases for micro-credentials, but will also better ensure that alternative learning opportunities meet quality standards so they will be more consistently regarded and valued by learners, consumers and verifiers alike.

The composition and quality of academic degrees, majors, and even minors, have long been clearly defined and even regulated through institutional policies, state departments of education, and regional accrediting bodies. There are even assumed practices regarding academic, credit-bearing certificate programs, which have been offered at many institutions since the late 20th century. Certificates are often considered a type of alternative credential because they are smaller than degree programs, and may be offered as stand-alone programs (unlike academic minors, which can only be earned with a degree). Many institutions have developed formal policies or guidelines for academic units to propose and offer academic certificates at both the undergraduate and graduate levels.

In this report, certificates are referenced mainly for purposes of comparison to the newer *micro-credential programs*, in terms of size, type and credentialing. The focus of this report will be on micro-credentials and badges since those are rapidly evolving, and many institutions have not yet established standards or protocols for them. With this explosion of these bite-sized learning opportunities and credentials, institutions of higher education, professional associations, private companies and governing bodies are scrambling to establish common understandings and use cases for micro-credentials and the learners who pursue them.

The considerations, guidelines and best practices documented throughout this report were written from the lens of and intended for admissions, enrollment management and registrar professionals. This is important to note because establishing comprehensive and quality micro-credential program initiatives involves many campus stakeholders, namely faculty and others who have innovative ideas as well as the best interest of learners driving their decisions.

The report breaks down these considerations and best practices into sections that focus on: 1) **what** alternative credentials, namely micro-credentials are; 2) **why** a campus might consider offering micro-credentials; 3) **who** should be involved in proposing alternative credentials, and **who** are the potential learner populations; 4) **how** micro-credential initiatives might be implemented for long-term success; 5) **where** micro-credentials and digital badges might be recorded and referenced; and 6) **when** alternative credentials should be awarded to foster their relevance and usefulness to learners.

This work group was comprised of a core group of AACRAO members representing diverse institutional types, positions, and geographic locations:

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In addition to the AACRAO workgroup members and contributor, industry partners from the American Council on Education (ACE), Educational Credential Evaluators (ECE), IMS Global, and University Professional and Continuing Education Association (UPCEA), shared their professional experience and expertise to assist in the creation of these best practices and workgroup report.

The work group charge included:

- Develop guidance for AACRAO members and their institutions on supporting micro-credential initiatives on their campuses;
- Develop guidance on appropriate methods of collecting, recording, and reporting alternative credentials;
- Address practices in the student admissions process as well as those in student records and registration; and
- Further, an AACRAO 60-second Survey (have we done surveys on micro-credentials?)

## I. **WHAT:** Establishing common definitions and standards for alternative credentials

The composition, quality and expected rigor of academic degrees, majors, and even minors, have long been clearly defined and even regulated through institutional policies, state departments of education, and regional accrediting bodies. These conventional credentials are what have historically been used to verify and validate learning achievements of broad bodies of knowledge. As such, they have resulted in clearly established policies and standards for their development, approval and issuance by colleges and universities.

Since the late 20th century, assumed practices and generally-shared definitions for academic, credit-bearing certificate programs also have taken form. While certificates have also become fairly mainstream in recent decades, they are still often considered to be in the realm of alternative credentials. This is because they are smaller than other academic credential programs in terms of the number of required credits, and because they may be offered as stand-alone programs (unlike academic minors, which may only be earned in conjunction with a degree).

In its 2021 report on establishing a common definition for micro-credentials, [UNESCO](#) referred to the larger subset of diplomas, degrees and even certificates and licensures as ‘macro-credentials.’ Another subset of credentials that have been added to the expanding ecosystem of credential types is ‘micro-credentials.’ UNESCO refers to micro-credentials as focused on specific sets of learning outcomes in narrow fields of learning. They are achieved over shorter periods of time, offered for a variety of purposes, and issued by different provider types, including professional bodies, traditional education, private industry and other types or organizations.

When participating in discussions on micro-credentials, it is common to hear micro-credentials and badges used interchangeably. For purposes of this report micro-credentials or micro-credential programs will be used to refer to the structured program or experience designed for learners to gain knowledge and competencies in very particular or tailored subjects. Badges or digital badges refer to the artifact issued to students upon successful completion of a micro-

credential program. Put another way, a badge is to a micro-credential program what a diploma is to a degree program. [\[Visual/Graphic opportunity here\]](#)

One thing that sets micro-credentials apart from other types of formally-recognized and awarded credentials is that they are often delivered as non-credit learning opportunities. This may be demonstrated by the rapid growth of badge issuance in private industry and non-profits, but certainly does not exclude the academy from offering them. The non-credit option adds to both the flexibility and complexity of creating micro-credential programs at colleges and universities. Historically, non-credit ‘certifications’ were often not approved through formal university channels, nor were they recorded in systems or credentialed in such a way that they could later be verified or easily reported. Students and other types of learners may have been issued a paper certificate or issued a non-credit transcript. Issuing digital badges for credit-based and non-credit micro-credentials alike expands the types of learning that may be developed by campus experts for different types of learners. Regardless of whether they appear on the transcript, micro-credentials allow our institutions to offer our recognition of learners’ skills and accomplishments in ways that are verifiable and trusted by internal and external consumers alike.

Another term commonly used in the alternative credentials space is ‘stackable.’ Certificate programs are increasingly being designed to not only be embedded in degree programs as value-added credentials to students, but may even be strategically ‘stacked’ to lead to macro-credentials, such as degrees. An example of stacking includes three specific graduate certificates that lead to a master’s degree in a given discipline. Similarly, credit-bearing micro-credential programs may be designed to be stackable and lead to a certificate program. In addition, stacking of non-credit learning experiences is increasingly being explored for transfer or degree application through prior learning assessments.

Credential stacking may be developed in the following ways ([Inside Higher Ed](#)):

- Vertical Stacking (traditional): Credentials are stacked in an ordinal hierarchy
  - Micro-credentials > Certificates
  - Certificates > Degrees
- Horizontal Stacking: Subject matter is connected with no ordinal hierarchy. Instead, a collection or accumulation of credentials to customize a defined content area.
- Value-added Stacking (blended): Add areas of expertise after a credential without the need to achieve a next ordinal credential.

{Insert illustration}

To fully appreciate the opportunities that digital credentials provide learners – be they for degrees, certificates or micro-credentials – is to understand what sets them apart from traditional paper diplomas and certificate documents. Most, if not all, digital credentials are

designed to be clickable and portable. Upon verification of requirements and awarded by an institution, digital credentials are shared by an institution via email and often through the technology of a third-party vendor to a learner. They can be further shared with others (such as employers), uploaded to social media platforms (such as LinkedIn), and/or linked in electronic resumes and CVs. When the receiver clicks on the credential link, they may be exposed to rich metadata. Additional considerations and best practices are listed in the “how” section of this report.

In the case of digital diplomas or certificates, this metadata may include dates issued, program descriptions, competencies, requirements and learning outcomes, among other criteria. Digital badges may include much of the same, as well as additional (optional) information, such as whether the micro-credential program is credit- or non-credit based, if it is aligned to national or industry standards or frameworks, and if it expires after a specific date. See illustrations of badges in section xxx.

**BEST PRACTICE:** The types of credentials and programs an institution awards should be clearly identified and defined, including how they might fit together. These credentials may include:

- a) Degree programs (Majors)
- b) Certificates
  - i) Undergraduate
  - ii) Graduate
  - iii) Professional
  - iv) Non-credit based
- c) Micro-credential programs
  - i) Credit-based
  - ii) Non-credit based

While not considered stand-alone credentials, minors and program tracks/options should also be clearly defined in institutional policy and distinguished from certificates and micro-credentials. In addition, when and how credentials may be stacked together should be included in institutional guidelines.

In making the determination as to how the various credentials will fit together, institutions must consider the knowledge, skills, and achievements obtained with credential completion. For example, a professional development speaker series on conflict management may be a candidate for a non-credit based micro-credential, while a series of three credit-bearing courses on an element of project management may be a candidate for a stackable graduate certificate.

**BEST PRACTICE:** The artifacts issued to learners upon completion – be they material or digital or both – and which correspond with the various credentials must be clearly delineated. They include, but may not be limited to:

- Diplomas
- Certificates
- Digital Badges

**BEST PRACTICE:** Determine if levels of credentials may be stacked to lead toward larger credentials. Examples include micro-credentials being stacked toward a certificate, and certificates being able to be earned either as stand-alone credentials or stackable toward a degree. If stackable, must they be completed in a sequential order? In other words, are they prerequisites for other alternative credentials?

**BEST PRACTICE:** A published list of approved alternative credentials as well as clearly outlined definitions and descriptions for each type of officially-recognized credential offered should be maintained in the university's catalog and/or other archivable documents.

## II. **WHY:** Aligning alternative credentials with institutional mission and priorities

Institutional leaders increasingly are finding themselves being asked about their plans to diversify their modalities, learner populations and course and program offerings. Interest in alternative credentials, namely micro-credentials, is coming from a variety of sources, including faculty, staff, regents/trustees, system leaders and/or state government officials. Less clear or not as well documented is how frequently matriculated students or other prospective learners are seeking or demanding more opportunities to pursue alternative credentials.

Regardless of who is asking or applying pressure, conversations around micro-credentials and badging are pervasive in many higher education communities. This is evidenced by the increase in articles, conference sessions, task forces, national and international discussions, and outreach being done on this topic.

Campuses must be able to clearly articulate the reasons for and value of micro-credentials in order to make a compelling case for faculty and other campus stakeholders to develop them as well as to attract learners to pursue them. The benefit of certificates and micro-credential programs for learners has become more widely recognized within higher education and in industry. They present opportunities to matriculated students for value-added learning experiences that have not been traditionally transcribed or credentialed. Many such experiences have long existed through co-curricular activities, field experiences, service learning and professional development. However, it has been up to students to include and explain these experiences on their resumes, and they typically have not been easy to verify through a trusted source, the institution.

In addition, alternative credentials are increasingly being viewed as a path to more attainable and accessible education and skills development. Because of their brevity and presumably low costs, they have the ability to reach underserved populations of learners, including those who desire or need, but who cannot afford the cost or time commitment of a traditional degree program, particularly if they are offered in a self-paced or other flexible format and modality.

On some campuses, decisions to explore or implement micro-credential programs are being made in proactive manners through organized strategic initiatives and carefully-selected campus partners. Other campus efforts have been more reactive as campus leaders rush to catch up with units and/or faculty who have independently already begun awarding digital badges.

Whether as part of a strategic plan or a more laissez-faire approach, it behooves campus leaders who decide to enter this space to establish a philosophy and approach as to why, by/for whom, how micro-credentials may be developed, and determine success metrics to know whether the implementation approach has been successful. After all, verifiable and portable badges that are issued to micro-credential program completers will bear their institutional brand. It is important to balance support for innovation and early adoption with that of strategy and structure that will help campuses explain, defend, report on and promote their micro-credential.

**BEST PRACTICE:** Campus innovators, influencers, decision-makers and administrators should come together to discuss the following questions as they related to alternative credentials, namely micro-credentials:

- What are the motivating reasons to consider offering micro-credentials?
  - How do alternative credentials fit within the overall institutional mission and strategic plan?
  - Will they help expand campus brand and/or reputation?
  - Are there viable new learner markets to tap with micro-credentials?
  - Should matriculated students have access to these new value-added learning opportunities?
  - Are competitors offering micro-credentials?
  - Has interest in micro-credentialing and badging been expressed by faculty, staff, students and other types of learners?
  - What are the value propositions for various ecosystem stakeholders, including campus units offering micro-credentials, learners, and consumers (such as employers)?

- What steps can be taken to ensure the creation of new micro-credentials will not dilute the credential ecosystem?
  - Are micro-credentials frameworks consistent?
  - Are the experiences, skills, and competencies being credentialed meaningful?
  - Can consumers trust that earners were assessed against measurable criteria?
  - Are the micro-credentials worthy of the institutional brand?
- Can the current infrastructure, resources and bandwidth promote and support such programs?
  - Should oversight for micro-credential administration be centralized or decentralized? Why?
  - If centralized, what are the roles of enrollment management offices, registrars, and admissions offices in this structure?
  - Are additional human resources needed to implement and sustain a micro-credentials initiative?
  - Are new revenue-generating opportunities being sought? Should the micro-credential initiative be revenue neutral? No cost to learners?
  - What is the financial model for credit v. non-credit micro-credentials? Will departments offering micro-credentials receive revenue or compensation?

Knowing and being able to articulate why a campus wants to offer micro-credentials is key to demonstrating commitment to a successful implementation, which will aid in recruiting champions and attracting early adopters." These questions need to be addressed by the appropriate collection of individuals in order to establish the structures and secure commitment to the resources necessary for a successful program implementation and long-term viability.

### III. **WHO:** Determining populations: Campus stakeholders, credential providers, learner populations

There are at least four general populations that should be considered when implementing a micro-credential program on a college or university campus. These include:

- The **campus stakeholders**, including key administrators, to involve in initial feasibility brainstorming and strategizing on alternative credentials;
- The campus officials and **credential issuers or providers** who will be authorized to develop and offer micro-credential programs; and most importantly,
- The **learner populations** who will benefit from these new learning opportunities.

- **Consumers** of alternative credentials.

### **CAMPUS STAKEHOLDERS:**

First, some campus initiatives are being borne out of the convening of curious, innovative individuals who either have some new ideas for micro-credential programs, or who are already providing interesting opportunities for learners that are not documented or credentialed in traditional, verifiable ways for completers. While creative minds may be the basis for dynamic and progressive alternative credential programs, it is incumbent upon the university to also involve administrators with the expertise necessary to help establish sustainable institutional frameworks and processes. Having a centralized model for all interested campus stakeholders to follow will help ensure that the effort is organized, consistently-applied and inclusive of all who wish to experiment in this space. This group can begin the exploration on the sustainability and scalability of the alternative credentials and whether additional staffing, budget, or technology resources will be needed for a successful implementation.

Key campus stakeholders should include, but are not limited to decision makers from the following offices:

- Office of Admissions
  - Determine whether there should be a formal application process for alternative credentials, including certificates and micro-credentials, and if there is a difference between processes for non-credit and for-credit credentials
  - Identify if admissions or departments offering alternative credentials will be responsible for marketing and recruitment
  - Determine whether earned alternative credentials should be considered as part of the admissions review process, and if so, create instructions for applicants and define how the alternative credential will be included and considered.
- Office of the Registrar
  - Implement systems and procedures for proposing, approving, building and tracking alternative credentials
  - Determine how the certification and awarding of the alternative credential will occur
  - Establish validation processes consistent with professional registrar and admissions standards that allow and encourage learners, employers, and the public to trust the credential
  - Identify how to publish approved credentials as well as maintain an archive of the earned credentials
  - Determine the appropriate status of various types of learners of alternative credentials.
  - Consider impacts to special populations of prospective learners, including student athletes, international students, and learners receiving veteran's benefits.

- Office of Financial Aid
  - Determine whether the credentials are aid eligible, and if so, what status the learner must have to be eligible.
- Institutional Reporting
  - Determine if and how these alternative credentials should be reported to institutional leadership, state and federal agencies, the National Student Clearinghouse, accrediting bodies, etc.
- Marketing and Communications
  - Determine and develop appropriate advertising and marketing strategies. Consider the creation of consistent branding, messaging, and terminology to utilize in advertising and marketing of the alternative credentials.
  - Decide if alternative credentials are to be published in the university catalog and/or on centralized or decentralized institutional websites.
  - Identify the entity responsible for creating the visual representation and design of the digital badges or other artifacts.
  - Contribute to internal and external communications strategies to engage specific stakeholders. Determine who will communicate with both internal and external audiences.
- Student Affairs
  - Identify key student support service departments interested in offering non-credit micro-credentials (co-curricular learning experiences)
  - Engage career services professionals in promoting alternative credentials earned by students to future employers
- Academic Affairs
  - Engage faculty and academic administrators in exploring existing or new credit- and non-credit alternative credential opportunities in schools, colleges, and programs. Determine if any incentives will be offered for the development of alternative credentials.
- Budget and Fiscal Planning
  - Determine appropriate cost models for various types of alternative credentials (revenue generating, revenue neutral, or no cost)
  - Determine how charges will be applied and collected for both non-credit and for-credit micro-credentials. Decide if the micro-credential charges are included as part of tuition (for degree-seeking students), if the charges are included in other program costs, or if the charges are paid by a third-party organization or employer of the learner who is seeking the micro-credential.
  - If revenue is generated from a micro-credential, determine how those funds are allocated
- Continuing Education or Extended Studies

- Explore developing and offering alternative credit- and non-credit credentials, especially to non-degree students, community members and other campus partners.
- Office of Information Technology
  - Determine role of institutional technology services in implementing and supporting systems to offer and award micro-credentials.
  - Identify and discuss various technology considerations such as systems integrations, single sign-on (SSO) implementation, accessibility review, and data privacy.
- Human Resources
  - Explore opportunities for micro-credentials to be awarded as part of training, upskilling, and professional development programming for employees.

**BEST PRACTICE:** Involve appropriate campus stakeholders in the strategic development and implementation of alternative credentials. The various roles and responsibilities of campus partners need to be clearly outlined and defined at different stages of discussions and initiatives.

**BEST PRACTICE:** Involve senior leaders whose support and championship may be vital to change management and successful implementation. When leaders lend their voices to the effort, it can offer valuable word-of-mouth validation and serve as internal marketing.

**CREDENTIAL ISSUERS:**

Next, an important determination that must be made early in the process is who on campus can propose and offer alternative credentials. It is naturally assumed that academic units, being the provider of credit-based programs of study, will continue to develop certificates and expand their interest in the newer micro-credential programs. Ideally, campus leaders will encourage, but not require that alternative credentials be issued by academic units.

Non-academic units are typically not authorized to offer credit-based credentials. However, they are key in the development and expansion of non-credit micro-credentials that provide co-curricular learning experiences, skills training, professional development, experiential learning and supplemental instruction. Potential opportunities for non-credit micro-credential program development are as vast and diverse as the number and type of non-academic units on a campus. They include, but are not limited to, student affairs, information technology, human resources, facilities, campus safety, diversity and inclusion offices, centers for teaching and learning and continuing education/extended studies.

**BEST PRACTICE:** Allow both academic- and non-academic units to issue alternative credentials. Certificates and credit-based micro-credentials should be limited to academic units, but non-credit micro-credentials may be popular programmatic offerings from academic and non-academic units alike based on content, delivery and intended target population.

**BEST PRACTICE:** Determine business processes or guidance that will support units offering micro-credentials to know stakeholders' roles in change management and implementation. Processes may include how learners declare for or enroll in micro-credentials, tracking systems for progress monitoring learner progress, and the steps to actually issue digital badges.

#### **LEARNER POPULATIONS:**

Campus decision makers must identify the intended learner populations for alternative credentials. Strategic and philosophical considerations should be discussed when determining the reach of these potential new programs to various audiences. As mentioned above in *why an institution may want to offer alternative credentials*, the benefits to various types of learners is potentially significant, and for different reasons. They have the potential to increase access and equity by being potentially more flexible, more affordable and shorter than traditional learning opportunities. If offered as part of stacked credentials, they may be pursued or bundled to fit learner needs feeding directly into learner choice and agency. They provide opportunities to learn specific skills to gain entry into certain jobs or upskill learners for job retention or promotability.

Learner populations may include, but are not limited to:

- Enrolled college students (undergraduate, graduate or professional) to engage in value-added learning opportunities
- Stop-out students as a way to re-engage with them
- Campus staff, as a means to improve access & equity for employees from underserved populations and/or in positions with limited opportunities for advancement. There may also be opportunities for faculty and administrators to participate in micro-credential programs to acquire additional skills and competencies to help them become better practitioners.
- Non-degree learners through continuing education and the promotion of specialized skills and interests as they continue in or return to the workforce
- Employees of corporations or businesses with which the campus has engaged in strategic partnerships to offer workforce development and upskilling
- Prospective students (either from high schools or community colleges) as way to promote new learning opportunities while establishing a relationship for potential future enrollment

The types of credentials and whether they are offered for college credit or not will be somewhat dependent on the intended purpose, the content and learning outcomes, and the learner population(s) to whom they are offered. In addition, institutions should consider if there are existing programs under which new credential types could be offered. For example, if a program already exists in a particular field, is it possible to delineate topical areas into smaller pieces that may be marketable to a different population of learners?

**BEST PRACTICE:** Clearly outline types and descriptions of learners that can seek alternative credentials from and through the campus. Understand why such credential programs might be offered to these populations, and how both the learners and institution will benefit from these structured relationships.

**BEST PRACTICE:** Identify how various learner populations will learn about and participate in the various types of alternative credentials. What will their status and relationship be with the institution?

**BEST PRACTICE:** Determine appropriate campus entities and governance structures to engage and work with industry partners, community colleges, and employers on the creation of appropriate consortium relationships and MOUs

**BEST PRACTICE:** To increase the visibility of the offering program and also recognize the learners' accomplishments, develop mechanisms that encourage micro-credential earners to "claim" their credentials upon completion, and actively display and share them.

#### **CONSUMERS:**

Finally, while the value of the alternative credential should primarily benefit the learner, they are advantageous for the consumers (i.e. employers) as well. By upskilling and retooling the workforce to meet various industry demands, micro-credentials offer an opportunity for consumers to hire a skilled and ready workforce. Employers can also use micro-credential programs to provide focused training to new or transitioning employees for skills acquisition or enhancement. [Forbes](#) described the three biggest employer advantages of micro-credentials including their scalability and cost effectiveness; their on-demand and individualized approach to learning; and their alignment of business needs to recruit and retain top talent.

**BEST PRACTICE:** Encourage consumers to identify needed skills for their workforce and work collaboratively to develop partnerships to enhance or create further micro-credential training.

## **IV. HOW: Establishing administrative infrastructure, standards, and support for a successful implementation**

The previous sections of this report describe the development of institutional standards and definitions of micro-credentials; the importance of aligning institutional mission and priorities; why a campus would choose to offer micro-credentials; and determining by whom and to whom the micro-credentials should be offered. This section of the report describes considerations and recommended best practices for institutions when determining "how" a micro-credential initiative may be implemented on their respective campuses.

It provides considerations for the establishment of the necessary processes and procedures (i.e. the "how"), which will be critical for success as campuses embark on the micro-credentials

journey. Though some micro-credential programs may be credit-bearing, and others are based upon an experience or collection of experiences, activities or other engagements, an appropriate record or artifact of completion is necessary.

A well-established responsibility of the faculty is to determine and approve curricula and requirements for credit-based credentials, primarily degrees, but also for certificate programs. Similarly, as institutions introduce micro-credentials, established institutional faculty governance committees and structures will need to be involved in the creation of appropriate frameworks and processes for the offering of alternative credentials. These may look different on each campus, yet the developed procedures should include faculty representatives for the review, approval, and assessment to ensure appropriate faculty oversight. If offering non-credit micro-credential programs out of non-academic units, appropriate review and approval structures and workflows need to be established for these as well to ensure consistency, meaningfulness, and worthiness of the campus brand.

In proposing new micro-credential programs, institutions must determine how they will be proposed, on what timeframe, and the processes for ensuring appropriate adherence to institutional or industry standards. Institutions must also decide whether a micro-credential will have an expiration date and time frame under which the credentials are reviewed.

**BEST PRACTICE:** Develop a structured approach and model for faculty oversight regarding the review and approval of micro-credentials. Institutions should determine their specific needs and consider whether different information should be collected and approval workflows established between credit-bearing or non-credit micro-credentials. A proposed model framework or proposal form should request information regarding:

- Program title
- Program description
- Requirements
- Criteria
- Evidence (descriptions of artifacts that may demonstrate criteria are met)
- Assessment protocol
- Effective date
- Expiration date (if applicable)
- Learning outcomes
- Alignment with external standards and competency frameworks
- Description of the timing of how the micro-credential can be earned and when a learner can begin and finish the credential (traditional semester/quarter model or on-demand)
- APPENDIX in the final report to include an example of proposal framework/form

As institutions introduce for-credit micro-credential programs, it will be important for the appropriate faculty committees and other governing bodies to determine the requirements, specific learning outcomes or competencies, and the criteria that must be met in order to earn

the credential. For micro-credentials offered from non-academic units, the appropriate campus stakeholders will need to be involved in the implementation and oversight.

The requirements will look different for the varying alternative credential types (badges, certificates, etc.), yet it will be important to ensure the information collected is comprehensive, is included as part of the appropriate review and oversight processes, and after being approved, is periodically assessed.

**BEST PRACTICE:** Ensure the requirements needed to earn the micro-credential are standardized and clearly defined. As described in the first section of this report, institutions will need to determine how the varying credential types “fit together.” Similarly, for each micro-credential the institution will award information regarding the minimum and maximum requirements; types of activities or courses that are required; information regarding the usage of clock hours or credit hours; and whether any external or prior learning experiences are allowed, should be included in the proposal and review process.

**BEST PRACTICE:** In addition to the requirements outlined above, institutions should articulate measurable criteria a learner must demonstrate to achieve the micro-credential. These criteria should be included in the artifact the learner receives upon completion of the micro-credential.

In previous sections of this report, considerations regarding learner populations and campus entities approved to award micro-credentials, were outlined and discussed. The digital nature of most alternative credentials provides learners with the opportunity to easily share their credential and its context with potential employers; thus, standards allowing for such portability and transferability are critical and key.

As micro-credentials are implemented, the collection of appropriate standardized metadata will be necessary. Metadata, such as the requirements a learner has completed and evidence a learner provided, will allow the learner to share information with potential employers regarding the skills and competencies they have demonstrated as a component of earning the micro-credential.

**BEST PRACTICE:** Develop and determine consistent metadata for each micro-credential. Examples of metadata may include the name of the micro-credential, a description that includes learning outcomes such as skills and competencies, and measurable criteria needed to obtain the micro-credential; the learner’s name, issue date, the issuer of the micro-credential, and description of the issuer.

**BEST PRACTICE:** Provide a framework for badge issuers to include the evidence of the knowledge and skills a learner has demonstrated. The inclusion of evidence artifacts within the metadata can enhance trust of the micro-credential and also equip learners with added context that may be valuable to digital badge consumers (i.e. employers).

**BEST PRACTICE:** In micro-credentials proposals, encourage stakeholders to describe any alignments to standards and competencies frameworks. If the frameworks are published to a platform in a standardized format (such as CASE, CTDL, or OSMT), open badges allow badge assertions to include the alignments in ways that are machine readable. In the coming years, this feature holds the value proposition of increasing the visibility and discoverability of learners who have earned credentials, as well institutional micro-credentials and program offerings.

**BEST PRACTICE:** Consider the consumers of the metadata. If your institution envisions that employers will be actively consuming metadata, it should be packaged and presented in ways that are accessible and user-friendly to those audiences.

At the time of this report, there are more than two dozen vendors providing software solutions for issuing digital badges. As the use of digital badges continues to increase, it is anticipated that the number of vendors that provide digital badging solutions will continue to grow.

In evaluating vendors, consideration should be given to the vendor tools and technology platforms that utilize a standard that can be easily shared by the learner. For example, a type of standardization for digital badges is a criteria called “open badge.” An open badge follows a technical standard or format that “is not a specific product or platform, but a type of digital badge that is verifiable, portable, and packed with information about skills and achievements” ([IMS Global](#)).

If an institution decides that the issuance of open badges is a functional requirement, it will be important when vetting vendors to ask whether the badges issued follow the open badge standards. The open badge standard is free to implement and any platform may adopt the specification. If a product is not Open Badges v2.0 certified, institutions should take independent steps to verify the platform standard allows for awarding badges in the open badge format. A list of platforms that are certified in the open badge standards is compiled and maintained by IMS Global.

**BEST PRACTICE:** Create micro-credentials in a way that allows them to be portable and transferable that help learners and institutions display, share, and otherwise utilize digital credentials. Alternative credentials issued using open badge technology enable issuers to include in the metadata uploads or links to evidence artifacts which demonstrate how a learner succeeded in meeting the badge criteria.

**BEST PRACTICE:** One benefit of micro-credentials is the digital nature of the credential which allows learners to include the credential on various social media platforms and digital resumes. As institutions implement micro-credentials, intentional consideration should be given to the visual design of the credential so it is consistent with the institutional brand identity, is

distinguishable from other credentials the institution may offer, and also provides the necessary information to the receiving entity.

In one example of a micro-credential, a digital badge, an institution may utilize the same badge design, with the distinguishing characteristics being the name of the badge name and competencies.

{INSERT BADGE EXAMPLES - (Kennesaw State, U at Buffalo, Champlain, etc.)We should be strategic in how many to display and how to organize them. May want to include examples of for differing levels of badges - participation, competency, and terminal.}

**BEST PRACTICE:** Develop a standardized institutional approach to the design and visual representation of micro-credentials. Determine who will create and design the micro-credential, the taxonomy for the micro-credential, and the institutional approach to the similarities or differences in the micro-credential design based upon the credential issuer or credential type.

**BEST PRACTICE:** Consider policy changes required to support micro-credentials before they are introduced and implemented. Campuses that already offer micro-credential programs have deployed various policy models. Some have worked to strategically implement common policies and procedures for all who wish to participate in this space. Others have left these decisions up to individuals and departments. While both models may have elements of success, having a broader perspective of the various considerations may influence campus leaders to be more strategic in their approach.

New learner populations may require modifications to how a student or learner is defined, changes to academic policies, determination whether the credential meets the standards to receive financial aid, or coordination with student affairs practitioners regarding how these new learner populations will be incorporated into student conduct or academic integrity procedures and policies.

Another policy consideration is related to the transfer of alternative credentials. Institutions will need to determine if they will accept alternative credentials awarded by another institution and if it is allowed to stack toward a new credential. For example, if a learner obtained a skill and earned a badge in the military or within a job, will this skill be applicable and/or transfer to another institution?

In addition, institutions should consider the impact of micro-credentials and the institutional implementation of FERPA. For example, if enrolled students are in the same learning activity as non-enrolled micro-credential learners, there may be FERPA considerations related to the sharing and co-mingling of the two populations of learners.

**BEST PRACTICE:** Create a network of campus champions including faculty, student affairs, information technology, human resources, financial aid, continuing education, and others. Determine if new institutional standards or academic policies need to be created to support the learners, the awarding of credentials, and processes to ensure integrity within them. Assess and determine whether the micro-credential meets the standards to receive financial aid.

As institutional decisions are made regarding the types of learners who can seek micro-credentials and how the learning activities and assessments will occur, institutional review will be needed to ensure compliance with FERPA standards and requirements.

As the professional stewards for institutional student data and records, it will be crucial to the successful implementation of micro-credentials that appropriate technological systems are implemented and utilized. Unreliable data is a risk factor to the trust of micro-credentials; thus, it will be prudent to ensure appropriate information is collected as well as a verification of the learner identity. Appropriate data quality reviews should be conducted to ensure the necessary learner and micro-credential information is being collected, maintained, and stored.

**BEST PRACTICE:** Create processes, procedures, and policies to verify the identity of the learner. To be a valued and trusted credential, institutions should adopt best practices that promote confidence that the learner is who they say they are, their credential was issued to and is now held by the person they claim to be, and the credential metadata contains the evidence of the claimed assertions.

**BEST PRACTICE:** Determine needs related to technology, including software, badging platforms, and required technical modifications and integrations to support the implementation of micro-credentials. This will involve appropriate campus partners from information technology, academic departments, continuing education, faculty governance, and institutional reporting.

**BEST PRACTICE:** Work collaboratively with campus partners to determine the scope of work to implement, maintain, and support micro-credentials and establish appropriate timelines, deliverables, and milestones. Institutions must consider the staffing levels, roles and responsibilities to fulfill the immediate implementation needs and also for long-term institutional scalability.

Assess staffing needs, develop metrics for determining appropriate staffing levels, and communicate with campus decision makers regarding the necessary administrative support.

**BEST PRACTICE:** As micro-credentials become more prevalent in the higher education environment, practices regarding how they will be recorded and presented to learners will continue to evolve. At a minimum, information should be retained regarding the learners who have earned the credential along with the criteria. Learners should be able to request either a digital or paper artifact notating the verification of completion of the micro-credential. Because micro-credentials may contain links to campus web pages that are subject to change, a

comprehensive list of the micro-credentials should be maintained in an official institutional publication (i.e. catalog) or other appropriate document.

As outlined in the AACRAO Retention Guide ([Link](#)) these educational records, both information on the earned credential as well as a listing of the available micro-credentials, should be considered permanent records retention.

In the long term, institutions may find it necessary to create mechanisms for additional tracking regarding those learners who may have applied or are seeking a micro-credential along with their progress toward completion. It may also be beneficial to the institution to include micro-credentials on their respective academic transcript, comprehensive learner record, or co-curricular transcript, yet these decisions will vary by institution. Additional information on the comprehensive learner record and potential relationship with micro-credentials is found in the following section.

## V. **WHERE:** Identifying places where micro-credentials and digital badges may be recorded and shared

Academic certificates that are formally approved typically are maintained in student information systems and posted to student academic records and transcripts. However, practices for where and how to maintain approved micro-credential programs as well as where to post completions (digital badges) for learners have been less consistent in these early days of offering these credentials.

While some campuses may choose to build and maintain credit-based programs and awards in its student information system, either instead of or in addition to a badging platform, whether this is the appropriate place and manner to manage non-credit based micro-credentials is less certain. As such, registrars and other campus leaders are increasingly exploring and/or developing alternative or supplemental records for credentials and other learning experiences, including Learning and Employment Records (LERs) or Comprehensive Learner Records (CLR).

As with all digital credentials, LERs should be compliant with digital standards that enable them to be interoperable and exchangeable among and between many credential providers (both within and outside of higher education). CLRs (Comprehensive Learner Records) are one such standard, and AACRAO has been actively involved in the research and development of the specification.

Comprehensive Learner Records represent the learner's mastery of specific learning outcomes as defined and assessed by an institution. It is richer in content than a traditional transcript (though it is worth noting that CLRs may contain transcripts) in that the credential will carry the learning outcomes and their descriptions (and optionally other descriptions and artifacts)

achieved by the learner. As with the traditional transcript, the authority of the issuer of the credential should be readily available and recognizable to the recipient or reader. The CLR provides information on learning that may come from academic courses, co-curricular activities, employment, or other evidence of learning or acquired competencies.

The CLR value is that, like the extended transcripts that came before it, it can act as a container for learning and achievements, providing a summary of learning that allows the learner to reflect on their education and, from this, articulate that learning to others. It can assist students in understanding the knowledge, skills and abilities they acquired during their education and how the knowledge will translate to future use after their academic career. The CLR can provide objective, trusted evidence of learning to third parties reviewing or considering a student as a candidate for an opportunity (e.g., labor market, graduate school, etc.)

Ideally, the records would be building blocks for student self-sovereignty enabling students to collect their credentials, stack them and disclose as needed to third parties without violating the chain of trust that stands behind the assertions (in a manner similar to encrypted PDF transcripts that pass through the student prior to the reaching the recipient).

At the time of this report, AACRAO continues its work (started in 2015) on establishing the CLR as a viable and valuable credential and tool for all students who continue their education at higher education institutions. More information regarding the specific work in which AACRAO has been engaged as well as one of AACRAO's signature initiatives is available at [Comprehensive Learner Record](#).

## VI. **WHEN:** Timing the award of digital badgers to foster their relevance and usefulness to learners

A determination campuses should make is whether they have the appetite and/or bandwidth to support flexible deliveries and awarding of alternative credentials, or if they must adhere to traditional business structures and calendars. Timely award of certificates and digital badges would likely make them immediately useful to learners. However, incorporating the offering and award of alternative credentials to the structures of traditional semesters and cycles may be necessary due to compliance, staffing, and reporting needs. These expectations and capabilities may change over time as these credentials become more commonplace and business processes mature, yet it is important to consider how institutions can remain agile and adjust to the evolving and quickly changing badge landscape. Impacts to special populations of learners, such as veteran students and athletes should be considered in terms of status and benefit eligibility. In addition, any alternative timing or processing of enrolling and awarding these credentials, particularly if they are credit-based, should be cleared by institutional

reporting, financial aid, and international student services. In some instances, the timing of when the micro-credential is awarded may vary based upon the type of credential. For example, it may make sense for some micro-credentials to be awarded with degree completion while others are awarded at the time the activity or assessment is completed, regardless of when it occurs within the semester. These institutional considerations will have to be addressed as micro-credentials are proposed and implemented.

**BEST PRACTICE:** Involve campus partners and stakeholders in determining the process for when micro-credential can be awarded by analyzing the needs of the learners, institutional staffing considerations, current business processes, how the micro-credential may align with other academic credentials the learner may be seeking, and potential impact to special populations.

## FUTURE OPPORTUNITIES

We can anticipate an increase in the offerings and usage of alternative credentials and campus responses to the rapidly changing higher education landscape. Enrollment management leaders, registrars and admissions officers will need to be adaptable and strategic in acknowledging the changes and develop new ways to support the evolving environment. As our respective accrediting bodies introduce new standards, best practices, and guidance on alternative credentials, we must react from an informed and proactive position to best advise and support our campus communities.

An institutional workgroup should be established to regularly review the ecosystem of alternative credentials and make recommendations as to how the institution can best position itself in supporting the campus and various learner populations. The landscape of higher education and what is expected of institutions will continue to change and the workgroup should discuss and recognize opportunities to re-engage learners, create new opportunities for non-degree students, and explore ways to impact and create economic mobility for learners.

A future opportunity that can be anticipated are discussions regarding the usage of prior learning assessments as compliments to alternative credentials, particularly as more credentials are issued by private industry and other non-education entities. While there is much to be explored and uncovered related to prior learning assessments, campus thought leaders, faculty, and academic practitioners, should be aware of and recognize the potential impact and future opportunities for their respective campuses. At time of publication of this workgroup report, AACRAO is considering convening a workgroup to further address the considerations, best practices, and guidance related to prior learning assessments.

Another area of potential change and opportunity is related to the international education landscape and our higher education international partners who have a more advanced

alternative credential ecosystem. As micro-credentials continue to expand in the United States, higher education leaders must consider the opportunities and lessons learned from our international counterparts.

Technological initiatives regarding improvements to identity management and the usage of blockchain have the potential to improve the mobility of learners and transferability of credentials. Empowering learners with greater access and agency with their earned credentials will in coming years potentially present us with transformational opportunities to increase official recognition of skills attainment, degree completion, and economic mobility, especially for learner populations that have been historically underrepresented and marginalized ([Federal Reserve Bank of Philadelphia](#)). As the technology tools we use in our daily lives - medical records, wikipedia authorship, etc. - become more intelligent and are able to authenticate “who we are,” and the usage of blockchain becomes more widely adopted, higher education institutions will have the opportunity to determine if these technological advances can be adopted within their respective campuses. In the case of alternative credentials, the opportunity to improve identity management and increase the mobility of digital credentials has the potential to be impactful for world-wide learners who seek our credential offerings.

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