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Digital Credentials Design Template

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The State Higher Education Executive Officers Association (SHEEO) serves the executives of statewide governing, policy, and coordinating boards of postsecondary education and their staffs. Founded in 1954, SHEEO is celebrating its 70th anniversary in 2024. SHEEO promotes an environment that values higher education and its role in ensuring the equitable education of all Americans, regardless of race/ethnicity, gender, or socioeconomic factors. Together with its members, SHEEO aims to achieve this vision by equipping state higher education executive officers and their staffs with the tools to effectively advance the value of higher education, promoting public policies and academic practices that enable all Americans to achieve success in the 21st century, and serving as an advocate for state higher education leadership.

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INTRODUCTION

In 2023, Reach University, the Indiana Commission for Higher Education (ICHE), and the State Higher Education Executive Officers Association (SHEEO) launched the [Digital Credentials in Post-Secondary Education initiative](#). The collaboration promotes skills-based credentialing for high-demand occupations, such as cybersecurity, aligning with state economic and workforce development priorities by addressing the labor force participation gap between potential workers and employers. The partnership focuses on the veteran population, particularly those transitioning from active duty, who are experiencing challenges in translating military skills into civilian workforce terms. Digital credentials enable veterans to translate skills acquired in the military, offering a clear pathway to employment and career advancement.

A significant factor contributing to the gap between potential workers and employers is the phenomenon of “missing workers”—individuals of working age (i.e., 18–64 years old) but not actively participating in the labor force. The COVID-19 pandemic exacerbated the condition, with [millions of workers leaving the workforce](#) because of health concerns, caregiving responsibilities, and a re-evaluation of work-life balance. Veterans, too, face similar disruptions in their educational and career paths due to military service. Digital credentials provide a means for veterans to re-enter the workforce more seamlessly by validating their skills and competencies acquired during military service.

Another pressing need for digital credentials is associated with the “some college, no degree” population. The [National Student Clearinghouse](#) reports that 36.8 million working adults who previously enrolled in a higher education institution left without receiving a degree or certificate. Between January 2021 and July 2022, approximately 2.3 million students stopped out of college, marking a 2.9 percent increase from the previous year; the statistic represents a [1.4 million increase](#) from 2020–21, highlighting a growing number of adults who hold some college credits but no credentials. Approximately [6.5 million](#) people are estimated to have stranded credits resulting in \$15 billion in debt owed to colleges and universities. [Such policies](#) contribute to inequities in higher education access and prevent individuals with stranded credits, disproportionately affecting low-income, first-generation students, and students of color from securing specific jobs.

Digital credentials offer a viable solution to these policy challenges by providing a flexible, verifiable, and accessible means for individuals to demonstrate their skills and competencies. They bridge the gap between traditional education and the evolving demands of the workforce, thereby enabling learners to gain recognition for their achievements and facilitating their re-entry into the labor market. By leveraging digital credentials, organizations can support economic empowerment, enhance the diversity of the talent pipeline, and improve labor outcomes across various state contexts.

DIGITAL CREDENTIALS

Digital credentials are electronic versions of traditional paper-based qualifications, such as degrees, certificates, badges, and licenses. Credentials provide a secure, verifiable, and portable means for individuals to highlight their skills, achievements, and competencies. Unlike traditional transcripts, digital credentials are designed to be easily shared and accessed online, allowing for greater transparency and flexibility in how qualifications are presented and utilized. They can include detailed information about the skills and knowledge acquired, making them a comprehensive record of a person’s educational and professional accomplishments. Such a detailed representation helps employers, workforce boards, and educational institutions better understand an individual’s skillset and fit for specific jobs. For veterans, digital credentials offer a standardized method for documenting military-acquired skills, making it easier for civilian employers to understand their competencies, translating partial college credits and military experience into marketable qualifications, and reducing barriers to employment.

Adopting digital credentials is transforming the landscape of education and workforce development by facilitating learning and skills-based hiring. Digital credentials enable a more equitable recognition of learning by providing a platform for individuals to demonstrate their competencies, regardless of where or how they were acquired. This is particularly beneficial for non-traditional learners, such as adult students, veterans, and career changers, who may have gained valuable skills outside formal education settings and are therefore more difficult to understand and verify. Additionally, digital credentials support lifelong learning by allowing individuals to continually update and add to their qualifications, reflecting their ongoing professional development, including soft skills, which are vital in the workforce today. The proposed approach to credentialing helps bridge the gap between education and employment, ensuring individuals have the necessary tools to succeed in a rapidly changing job market. It also helps to identify and evaluate talent, learning, and transcription while mitigating recruitment bias and promoting organizational diversity.

DIGITAL CREDENTIALS IN THE 21ST CENTURY

A new regulation banning transcript withholding took effect in July 2024, preventing most colleges nationwide from withholding transcripts for any course credits a student paid for with federal financial aid, including federal loans, grants, or work-study funds. The policy change addresses a significant barrier for many students, particularly those from low-income backgrounds, first-generation students, or students of color, who are disproportionately affected by [transcript holds](#). It is also particularly relevant for veteran populations who may have difficulty accessing their military education records or prior credits.

Digital credentials simplify the process of compiling their education history, ensuring they can use it to advance their career. Building a digital infrastructure to access educational records, including those from institutions that no longer exist, is crucial. It is also essential to integrate course information and skills upon course completion, allowing learners to display their acquired skills throughout their academic journey instead of at the end. The infrastructure also ensures students can gain value from their educational experiences, both traditional and non-traditional, regardless of the type of institution they attended. Implementing universal design principles to target equity will benefit everyone. By engaging the groups most impacted, the broader population will also benefit from the enhanced access and flexibility of digital credentials. The transformation allows for a more equitable and accessible higher education environment, ensuring all students can highlight the skills and achievements they have acquired at times without being hindered by outdated policies.

With nearly 2 million “[missing workers](#)” reported in April 2023, accounting for 42% of the estimated 4.5 million “mission jobs” compared to pre-pandemic trends. To close the labor force participation gap, it is vital to improve the connections between credential providers and the skills documented by learning and employment records (LER). Many states already have tools in place to support its “missing workers.” By leveraging Indiana’s leadership in digital credentialing, the initiative plans to expand its efforts nationally to other states, fostering a cohesive and scalable approach to skills-based credentialing across the country. The Digital Credentials Design Template aims to codify recommendations from the one-state pilot in Indiana, supporting improved economic empowerment, diversity in the talent pipeline, and better labor outcomes across various state contexts.

THE ROLE OF DIGITAL CREDENTIALS FOR VETERANS

Veterans face significant barriers in higher education and the job market, leading to lower educational attainment than their nonveteran peers. Despite benefits like the G.I. Bill, veterans are less likely to complete a bachelor’s degree and often encounter challenges related to health and housing. By 2021, the [Department of Veteran Affairs](#) reported that there were approximately 5.1 million post-9/11 Veterans who had served on active duty. Of these, only 32% held a bachelor’s degree or higher, meaning the majority – 68% – did not have a bachelor’s degree or higher level of education. Further, only 13% of those who

hold a bachelor's or more advanced degree use their educational benefits. Targeted interventions are crucial to addressing disparities; digital credentials provide a flexible and accessible means for veterans to document their military training and experiences, enabling them to present a comprehensive portfolio of their skills to potential employers.

Additionally, the [Student Veterans of America](#) found that, by 2015, only 37% of post-9/11 Veterans had earned an associate degree or certificate, with another 18% still enrolled in a postsecondary program at the time. Despite educational benefits like the G.I. Bill, a significant challenge remains: 87% of post-9/11 veterans have not used their educational benefits. The statistics highlight the educational disparities veterans face and the critical need for targeted interventions to help them complete degrees and obtain credentials. Digital credentials provide a valuable tool for veterans to translate their military experience into recognized qualifications, making it easier for them to pursue further education or transition into civilian careers.

Indiana's 2024 launch of a short-term, project-based virtual learning experience in cybersecurity is one such initiative focused on veterans in transition, on their spouses, and potentially the National Guard members, ROTC students, and Jr. ROTC participants. By offering hands-on projects leading to a micro-credential, the program enhances veterans' employment prospects and provides pathways for further education. Veterans often possess valuable skills from their military service that civilian employers do not readily recognize. Digital credentials offer a standardized way to document and validate skills earned in the military and elsewhere, making it easier for veterans to highlight their competencies. Compliant with national standards, digital credentials can be added to learning and employment records (LERs) or digital wallets, improving the visibility and marketability of veterans' skills, while flexible, skills-specific training programs facilitate a smooth transition into the civilian workforce and align with broader workforce development goals.

DESIGN TEMPLATE FOR A DIGITAL EDUCATIONAL WALLET

The Digital Credential Design Template outlined in the following pages is for states, regions, high schools, industry-certification providers, and institutions interested in developing digital credential systems. It provides a checklist to support system development by creating and implementing the necessary infrastructure and resources to effectively design, deploy, and manage a digital credential system. It also includes examples from states implementing digital credential programs and specific steps or topics to consider. The information and concepts presented should also be useful for improving the success of credential updating, access, and verification in postsecondary education and workforce development. The design template is intended to be used alongside the resources available on SHEEO's online [digital credentials](#) webpage.

The template can be tailored to help translate veterans' military experience into civilian-recognized qualifications, enabling them to display their acquired skills throughout their military service and subsequent civilian education. While the template focuses on state postsecondary levers and strategies for designing skills-based credentialing systems, particularly for veterans, transitioning military and their spouses, a breadth of stakeholders can benefit from the ownership and implementation recommendations for other high-needs occupations critical to states across educator preparation, social work, allied health, and more. The deliverable is readily adaptable for an extensive constituency of users.

It is important to also recognize that there is no one-size-fits-all approach to credential platform development. Each state, region, locality, and institution differ, and context influences the approach to development and implementation. Consider the design template as a series of helpful suggestions and topics to inform strategy and policy instead of a step-by-step playbook.

I. SURVEY LANDSCAPE

A critical first step for states setting up a digital credentials program is to review, understand, and establish the landscape. In the case for veterans, it involves assessing veterans' unique educational backgrounds, including prior military training, and how experiences can be converted into college credits or credentials. State agencies can do so by analyzing data from internal and external sources and reviewing past efforts and initiatives to serve veterans.

The survey landscape stage includes assessing degree attainment, evaluating institutional characteristics, translating how military experience can convert to civilian skills, career pathways, and jobs, and establishing benchmarks tailored to the needs of veterans.

ASSESSING DEGREE ATTAINMENT

Understanding degree attainment levels, particularly for veteran populations, within a state or region is critical to identifying educational gaps and areas for improvement. By identifying the gaps, stakeholders can tailor the digital credential system to address specific needs, ultimately enhancing veterans' educational outcomes and workforce readiness, for example, learning resources and workforce development training programs.

It is essential to not only track formal education held by veteran populations but also their military-acquired skills can be recognized as college credit or credentials, helping them complete their education more efficiently.



OBJECTIVE: Assess current degree attainment levels for veteran populations and identify gaps or opportunities.



METHOD:

1. *Collect and analyze data*

- » Identify data sources by gathering data on degrees awarded, demographics, and completion rates from reliable sources like institutional reports, educational surveys, and national databases. Focus on collecting a range of data points to ensure a well-rounded understanding of student achievement across different population groups, including veterans.
- » Obtain quantitative data with specific demographic markers such as age, race, gender, and socioeconomic status. Demographic data, combined with educational outcomes like degree completion rates, allows for an in-depth analysis of how different students are performing.
- » Use statistical tools to identify trends, patterns, and disparities across institutions, regions, and demographics.

2. *Utilize data sources*

- » Leverage critical sources such as the American Community Survey, National Student Clearinghouse, SkillsBridge, Complete College America data sets, and Student Veteran of America data. These sources provide detailed state and county-level insights to help to understand the educational landscape for veterans, including gaps in attainment, regional disparities, and socioeconomic trends affecting student success.
- » Combine and cross-reference data from diverse sources to create a comprehensive and multi-dimensional view of student performance.

3. *Identify target areas*

- » Detect disparities by identifying regions or demographic groups with lower veteran student attainment rates and analyzing contributing factors. Analyzing contributing factors, such as institutional policies, economic barriers, or lack of veteran support, helps uncover why disparities exist and identify solutions.
- » Implement and monitor by deploying support programs in the identified high-need areas and regularly assessing their effectiveness. It may include setting up mentorship programs, career counseling, or academic advising tailored to veteran learners.

EVALUATING INSTITUTIONAL CHARACTERISTICS

Each educational institution has unique characteristics, such as institutional size, type, and geographic influences. Understanding attributes helps align institutional policies with students' specific needs. By assessing educational characteristics, stakeholders can ensure the digital credential program is adaptable and supportive of various institutional contexts. Alignment is essential for creating a system that effectively meets the diverse needs of student groups across different types of institutions.

Institutions that serve veterans should offer prior learning assessments (PLA), flexible schedules, and veteran-specific resources, such as veteran support offices and tailored mental health services.



OBJECTIVE: Identify participating institutions and the characteristics that are relevant to veterans.



METHOD:

1. *Understand the characteristics of institutions to tailor program attributes*

- » Gather data on institution types (i.e., two-year institutions, four-year institutions), size, and availability of support services tailored to veterans (e.g., flexible schedules, prior learning assessment, credit transfer policy) as it helps tailor the digital credential program to enhance their educational experience and success.

2. *Align institutional support for students*

- » Evaluate the alignment of the institution's mission with veteran needs, including the availability of veteran-specific programs and flexible learning options; assess faculty expertise in working with veterans and their access to professional development on veteran issues; and review existing student support services, such as dedicated veteran offices, peer support networks, and tailored mental health resources.

3. *Assess institutional student population-focused institutional offerings*

- » Understand the offerings at an institution to assess whether they serve different student groups, such as veterans, who would benefit from opportunities such as prior learning assessments (PLA), flexible schedules, and veteran-specific resources, such as veteran support offices and tailored mental health services.

REVIEWING PAST EFFORTS

Reviewing past initiatives provides information on successful strategies and where challenges have arisen. The historical perspective is invaluable to inform the design of new programs and avoid previous pitfalls. By analyzing the outcomes of its efforts, stakeholders can identify best practices and integrate proven strategies into the digital credential system. Additionally, understanding past challenges allows for developing mitigation strategies, ensuring a more robust and effective implementation process. A thorough review helps build a system that is innovative and grounded in proven methodologies.

When serving veteran populations, it is important that agencies understand which programs successfully translate military experience into civilian-recognized skills that can inform future efforts. Drawing from best practices, institutions can better design credentialing systems that cater to veterans' unique needs.



OBJECTIVE: Review previous research, initiatives, and programs for veteran learners to identify successful strategies and potential pitfalls.



METHOD:

1. ***Conduct a comprehensive review***

- » Examine existing research, initiatives, and programs targeting veteran learners to gather information on their design, execution, and outcomes. Consider factors such as program design, outreach strategies, and technological implementations to understand their impact.

2. ***Evaluate key factors***

- » Analyze program design, outreach strategies, and technological implementations to assess their effectiveness and impact.

3. ***Document and Analyze Findings***

- » Record lessons learned, credit for prior learning (CPL) data, best practices, and identified pitfalls. Use the documentation to guide the design and implementation of the digital credential system, ensuring it incorporates proven strategies and avoids common mistakes.

ESTABLISHING BENCHMARKS

States should work to develop standard measures across their programs by using benchmarks for evaluation that recognize the needs of demographics of each state's population and institutions. To establish a baseline, states might start with current students in a comparable population (e.g., veterans with some prior credit before enrolling at their current institution). For veterans, benchmarks might include tracking the number of veterans earning credentials, their employment outcomes, and their utilization of educational benefits like the G.I. Bill. Determine the number of students and identify whether specific demographics are over- or underrepresented. Use credit completion, graduation rates, and cost-per-credential metrics for students as baselines to assess the pilot program.



OBJECTIVE: Set benchmarks and success metrics for a digital credential program that can create an ecosystem to connect veterans with employers and provide veterans with resources that place them on a trajectory for success.



METHOD:

1. ***Set quantifiable goals for the digital credentials based on demographic groups***
 - » Establish measurable goals for the digital credential program by analyzing demographic data to ensure inclusivity and address the needs of different student populations, including veterans, nontraditional learners, and first-generation students.
 - » Use success metrics such as graduation rates, credit completion rates, and career outcomes to set quantifiable goals for each demographic group, like increasing the graduation rate for veterans or improving credit accumulation for part-time students. By setting clear, data-driven objectives, institutions can track progress and make informed adjustments to enhance the overall effectiveness of the digital credential program.
2. ***Set up baseline student data***
 - » Collect baseline data on current students from a comparable population to establish initial benchmarks for the program. Data collected includes gathering demographic information, academic performance data, and prior educational achievements. Assess factors such as degree attainment, enrollment status, age, race, and socioeconomic background.
 - » Use data to identify patterns, trends, and disparities among different student groups. The foundational data will help in setting realistic and achievable benchmarks that allow institutions to measure success and progress over time.
3. ***Tracking key performance indicators***
 - » Identify key performance indicators (e.g., enrollment numbers, graduation rates, credit completion rates) to track progress and measure the program's success over time. By analyzing the data, stakeholders can better understand the current landscape, assess gaps in performance or support, and establish specific goals for improvement in areas such as graduation rates, credit completion, and career outcomes.

II. ENGAGE STAKEHOLDERS

Digital credential initiatives, regardless of the specifics of their design and structure, will need the buy-in and support of a wide variety of stakeholders. This includes state policymakers, institutional and system leadership, and the general public. There are two essential reasons for involving stakeholders. First, engaging various stakeholders can ensure the program design is robust and addresses the needs of the state and the students it intends to benefit. The design increases relevance, practicality, and success by incorporating stakeholder perspectives to identify challenges, align with real-world needs, and refine its features. Second, engaging stakeholders is an effective way to earn their support, without which programs will tend to fizzle and falter.

The stage includes identifying stakeholders, developing a communication strategy, securing stakeholder buy-in, and understanding what is involved in issuing credentials.

CIVIC ENGAGEMENT, FREE SPEECH, & PUBLIC PURPOSES

Identifying key stakeholders requires engaging organizations with a proven track record of supporting veterans in higher education. Key stakeholders include organizations like Veterans Education Success, Student Veterans of America, and the American Legion which are doing valuable work in the space of supporting veteran populations. Depending on the specific circumstances of the state and the program's goals, additional stakeholders may need to be engaged in the conversation.



OBJECTIVE: Engage diverse stakeholders such as state policymakers, institutional leaders, faculty, employers, and students to ensure the digital credential program is well-informed, widely supported, and effectively addresses the needs of all involved parties.



METHOD:

1. Engage policymakers and key stakeholders

- » Engage state policymakers to align the program with educational and workforce priorities, institutional leaders and faculty to ensure feasibility and curriculum integration, employers to meet workforce needs, and students to address their specific challenges and needs.

2. Organize targeted outreach activities

- » Develop specific outreach activities, including meetings, workshops, and forums, to facilitate detailed discussions, and gather feedback. Organize meetings to present program concepts, address potential challenges, and collect insights for improving the program's design and implementation.

3. Establish collaborative stakeholder committees

- » Create stakeholder groups or committees to provide ongoing feedback and support throughout the program's development and implementation. Developing spaces for specific groups such as financial aid administrators, academic affairs staff, chambers of commerce, and advocacy organizations fosters collaboration and ensures the mutual contribution of support and insights.

DEVELOPING A COMMUNICATIONS STRATEGY

Effective communication is essential for garnering support for digital credentials initiatives that impact different stakeholder groups. Providing clear and concise information about the state's veteran student population, including demographic disaggregation and workforce development circumstances, helps stakeholders understand the unique challenges, opportunities, needs, and priorities of the state. Emphasizing philanthropic support, including backing from businesses and well-regarded local foundations, can further illustrate the program's strength and viability. Each state has distinct needs and priorities, and communication strategies should highlight how the program addresses the unique aspects, demonstrating its relevance and potential impact.



OBJECTIVE: Provide clear, concise information about the digital wallet's purpose and benefits. This establishes stakeholders' understanding of how digital wallets can enhance access to educational resources, identify skills gaps, recommend programs, courses, and books, provide career pathways, connect to jobs, and improve the overall academic experience for veterans.



METHOD:

1. ***Craft clear and targeted communication materials***

- » Develop targeted communication materials that clearly outline the digital wallet's purpose, benefits, and potential impact. Create an impactful value proposition that institutions, learners, and enterprises can adopt widely.

2. ***Emphasize philanthropy and workforce support***

- » Highlight the role of philanthropic support and workforce development in communications to demonstrate the program's strength and viability.

3. ***Leverage multi-channel outreach strategies***

- » To reach a broad audience, utilize various communication channels such as press releases, social media, webinars, veteran organizations, and newsletters. It increases awareness and understanding among stakeholders while also building support and momentum for the initiative.

SECURING STAKEHOLDER BUY-IN

To secure stakeholder buy-in, it is crucial to advance programs that serve the unique needs of the state and its residents. While some best practices and systems help determine a state's best interests, a one-size-fits-all approach is often ineffective as it fails to recognize the unique needs of different populations. Tailoring the program to fit the state's specific circumstances will encourage stakeholder buy-in.

It is also essential to establish a sense of urgency for the digital credentials program. Reaching veteran students is instrumental to achieving equitable educational and economic attainment goals in most states, and digital credentials provide a modality for transformative change. By demonstrating the program's importance and the pressing need for action, stakeholders are more likely to support and engage with the initiative.



OBJECTIVE: Use active engagement and communication to garner stakeholder commitment and support.



METHOD:

1. ***Organize workshops for feedback and stories***

- » Host workshops and meetings by organizing sessions that engage stakeholders by collecting their feedback, addressing concerns, and highlighting success stories.

2. ***Share reports and case studies***

- » Develop reports and case studies for widespread dissemination that demonstrate the program's potential impact. Sharing program insights also helps to highlight the successes of similar initiatives, thereby underscoring the urgency for sustained investment.

3. ***Maintain continuous stakeholder communication***

- » Establish a feedback loop by maintaining ongoing communication to keep stakeholders informed and involved throughout the program's development and execution. It ensures stakeholder buy-in continues across the different stages of the process.

III. PROGRAM DESIGN

A program design for digital credential initiatives serves as a blueprint that outlines the structure, components, and strategies essential for achieving the program's goals. It encompasses the identification of critical parameters, financial resources, partnerships with training providers, and comprehensive student support services.

The design ensures the program is tailored to meet the unique needs of veteran learners, fostering equitable access and facilitating their educational and career advancement. When designing programs for veterans, it is crucial to partner with veteran organizations and institutions that specialize in veteran education, ensuring the curriculum addresses both military-acquired skills and civilian workforce demands.

EXAMINING PROGRAM PARAMETERS

Program parameters define the criteria and guidelines for eligibility, ensuring digital credential programs effectively target and support those who will benefit most. It involves setting clear criteria for students and institutions, including age, race, income thresholds, prior credit requirements, military work experience, academic ability, and special population considerations. By establishing parameters, the program aims to provide equitable access and targeted support, ensuring resources are allocated where needed most and all participants have a fair opportunity to succeed.



OBJECTIVE: Define clear eligibility criteria for students and institutions to help veterans navigate programs more effectively and ensure institutions can provide targeted resources and assistance.



METHOD:

1. ***Define eligibility and selection criteria***

- » Set eligibility criteria by defining specific criteria, including age ranges, racial diversity goals, income thresholds, acceptable prior credits, academic performance standards, and considerations for special populations like veterans. Allow employers to interview candidates (e.g., speed dating) to select participation in work-based learning to meet hiring needs.

2. ***Analyze demographics to refine criteria***

- » Collect and analyze state demographic and educational statistics to further refine the criteria. It includes evaluating population demographics, educational attainment levels, and existing program gaps.

3. ***Adjust criteria to meet evolving needs***

- » Tailor criteria by adjusting eligibility parameters based on the data to address the identified needs of target populations and ensure adequate resource allocation and support.

CONDUCTING FINANCIAL ASSESSMENTS

Financial resources are a critical component of the program design, focusing on identifying and leveraging various funding sources to support digital credentials programs. This includes state-based financial aid, institutional aid, emergency financial assistance, employer-based support, and government funding (e.g., GI Bill). By strategically using financial resources, the program aims to alleviate economic barriers, ensuring veteran learners have the necessary support to complete their education and achieve their career goals.



OBJECTIVE: Identify and leverage financial resources. Identify and leverage financial resources to secure necessary funding for development, implementation, and ongoing support, ultimately enhancing the program's effectiveness and accessibility for veterans.



METHOD:

1. *Determine diverse financial aid sources*

- » Identify various financial aid sources, including state-based financial aid programs, institutional scholarships and grants, emergency financial aid for students in crisis, and government-sponsored funding like the GI Bill for veterans.
- » Consider exploring employer-based aid programs, which may offer tuition assistance or sponsorships for skill development and philanthropic funding from foundations and nonprofit organizations.
- » Conduct a comprehensive financial assessment to ensure learners and employers have access to various funding options, particularly those tailored to underserved groups such as veterans, first-generation students, and low-income individuals.

2. *Explore additional financial support options*

- » Consider exploring innovative financial support options beyond traditional financial aid sources to address participants' immediate and long-term financial needs.
- » It may include debt forgiveness programs for individuals with stranded credits, emergency financial aid to cover unexpected personal or academic costs, and employer-based support initiatives that offer paid internships, tuition reimbursement, or skills development programs.
- » Finally, focus on solutions that help students overcome financial barriers and provide flexibility in accessing education, particularly for nontraditional learners such as working adults and veterans transitioning into civilian life.

3. *Create a comprehensive financial aid strategy*

- » Develop a holistic financial aid strategy that integrates multiple funding sources to ensure comprehensive support for participants throughout their educational journey.
- » The strategy should consider the specific needs of different populations, including veterans, who may have access to unique financial aid options like the GI Bill.
- » The strategy should also address the lived experiences of students, considering factors like job loss, caregiving responsibilities, and other financial hardships. Incorporate a mix of grants, scholarships, emergency aid, and employer partnerships to create a sustainable financial support system that empowers learners to complete their training or education without significant financial strain.

ASSESSING TRAINING PROVIDERS

Training providers are pivotal to the program design, partnering with organizations offering occupation-specific training, pre-apprenticeship/apprenticeship, and development opportunities. This step involves collaborating with providers to ensure that the skills and credentials offered align with current workforce needs. It includes developing strategies for recruiting participants, work role-based training, defining credential descriptors, and centering market-relevant skills. By establishing partnerships, the program ensures veteran learners gain relevant, practical skills that enhance their employability and career progression. It also ensures participants receive training and credentials aligned with current job market demands.



OBJECTIVE: Partner with occupation-specific training providers to offer relevant skills and development opportunities.



METHOD:

1. *Collaborate with high-demand training providers*

- » Identify and collaborate with training providers that offer programs aligned with high-demand occupations in sectors such as health care, technology, and cybersecurity.
- » Ensure providers have a track record of successful outcomes and are capable of delivering hands-on, practical training that meets current industry standards.
- » It is also important to assess the providers' ability to offer flexible learning options for diverse groups, such as veterans, working adults, and individuals looking to upskill or reskill.

2. *Develop clear credential descriptors*

- » Develop clear and detailed credential descriptors that define each credential's specific level (e.g., introductory, intermediate, or advanced) and its corresponding learning outcomes. It is also important to understand the competencies acquired upon completion.
- » The descriptors should also outline the occupational trajectories associated with the credential, helping participants understand the types of jobs and career paths the credential qualifies them for. Transparency supports both learners and employers in recognizing the value and applicability of the credential within the workforce.

3. *Design recruitment strategies for participants*

- » Create targeted recruitment strategies aimed at attracting participants to the training programs by highlighting the relevance of the skills and credentials in today's job market.
- » Tailor the recruitment campaigns to various demographics, including recent graduates, career changers, veterans, and underrepresented groups. Further, use multiple outreach methods such as social media, partnerships with community organizations, career fairs, and informational webinars to effectively communicate the benefits of the training programs and the high-demand career opportunities they support.

DEVELOPING STUDENT SUPPORTS

Providing comprehensive support services is foundational to advancing the educational and professional goals of veteran learners. The supports address veterans' unique needs by offering flexible learning options, credit for prior military experience, and alternative instructional methods, ensuring veteran students receive the appropriate assistance.

Research finds veterans require tailored guidance, including mentorship, flexible learning schedules, and credit for prior military experience. By offering student supports, such as mentorship, institutions can significantly enhance veterans' academic success and workforce readiness.



OBJECTIVE: Implement comprehensive support services for veteran learners to enhance attainment and bridge equity gaps by addressing their unique needs and ensuring they have the necessary resources for success.



METHOD:

1. Develop comprehensive mentorship programs

- » Establish mentorship programs that connect students with experienced mentors who offer personalized guidance and emotional support throughout the student's educational journey. Mentorship programs should be tailored to the unique needs of different student populations, including veterans, adult learners, and first-generation students. Mentors can be invaluable in navigating academic challenges, balancing work and family obligations, and connecting students with resources and networks to enhance their professional and personal growth.
- » The program should also embed peer mentorship opportunities, where students can learn from their more experienced peers, fostering a sense of community and shared success. Offer navigational support and coaching to help students effectively manage their academic and career planning.

2. Provide navigational and career support

- » Offer navigational and career coaching to help students manage both academic and career pathways effectively. Provide access to credit for prior learning assessments (PLA) to recognize the work and life experiences of students and create degree maps that clearly outline steps to graduation and beyond.
- » Provide structured scheduling options (e.g., evening or weekend classes, alternative instructional delivery methods like hybrid or fully online learning) to accommodate the diverse learning needs of students.

3. Extend support service availability

- » Ensure extended hours for support services to meet the needs of non-traditional students like veteran learners who may have full-time jobs or family commitments. Provide academic advising, career counseling, mental health services, and tutoring during evenings and weekends to accommodate their availability.
- » Consider creating a 24/7 virtual support platform that provides students with access to resources, chat services, or virtual advising appointments. Flexible scheduling ensures all students, especially those with time constraints, can access the support needed to thrive academically and personally.

IV. RE-ENGAGEMENT STRATEGY

For digital credential programs to succeed, states must effectively identify veteran learners interested in using a digital wallet and implement an opt-out strategy, ensuring everyone receives a digital wallet. It involves targeted marketing and outreach efforts and addressing challenges related to accessing data on potential participants. Although institution-level data may be available, outdated contact information from prior enrollments can pose significant obstacles. States must develop innovative re-engagement strategies to overcome these challenges and encourage prospective students to use digital credentials. Targeted outreach to veterans, through partnerships with military transition offices and veteran support organizations, is essential for maximizing engagement.

The re-engagement strategy stage includes conducting outreach and marketing, utilizing data effectively, estimating program costs, making cost considerations, and planning for sustainability.

CONDUCTING OUTREACH AND MARKETING

Outreach and marketing are vital for the success of digital credential programs, focusing on effectively reaching and engaging potential veteran learners. This involves crafting targeted communication strategies to inform eligible individuals about the benefits and opportunities offered by digital credentials. Programs can increase visibility and attract a diverse audience by utilizing various channels such as digital advertising, community partnerships, and direct outreach. Addressing barriers such as outdated contact information and leveraging data-driven insights are vital to maximizing outreach efforts. Effective marketing ensures that potential participants are aware of and motivated to pursue digital credentialing opportunities, ultimately enhancing program enrollment and success.

Marketing campaigns should be tailored to veteran populations by utilizing veteran organizations, social media platforms, and partnerships with military and veteran communities to increase awareness of digital credential opportunities.



Objective: Identify key stakeholders and develop targeted marketing campaigns to engage veteran learners and their supporters to ensure efforts are directed toward those most likely to support and benefit from digital credentials.



Method:

1. *Engage key stakeholders*

- » Identify and engage key stakeholders for veteran student populations, including veteran organizations, military transition offices, and advocacy groups. Collaborate with stakeholders like Veterans Affairs, Student Veterans of America, and local veteran support networks to ensure the program addresses veterans' unique challenges and opportunities.
- » Engage stakeholders through targeted outreach activities, such as community forums, information sessions, and networking events, to ensure veterans are aware of the educational and career resources available. Building relationships will also provide valuable insights into veteran-specific needs and preferences.

2. *Develop veteran-focused marketing campaigns*

- » Develop targeted marketing campaigns that leverage multiple outreach channels to reach veteran student leaders. Use public service announcements,

social media platforms, and partnerships with veteran-friendly community organizations to raise awareness about the educational and training opportunities available.

- » Tailor messaging to emphasize the program's alignment with veterans' skills, such as offering credit for prior military experience or pathways to high-demand civilian careers.
- » Finally, highlight the success stories of veteran participants to build trust and demonstrate real-world impact to create marketing that resonates with veterans and encourages engagement with the program.

3. Refine marketing strategies by using data and feedback

- » Leverage feedback and data-driven insights to refine and enhance marketing strategies, ensuring the strategy addresses the potential barriers to outreach and engagement.
- » Analyze demographic data, user engagement metrics, and feedback from veteran participants to identify the most effective communication channels and outreach methods. Regularly track and assess campaign performance to improve targeting and increase reach, ensuring veterans receive relevant information that motivates them to participate in educational and career advancement opportunities.

UTILIZING DATA EFFECTIVELY

Data utilization is vital for optimizing digital credential programs leveraging available information to enhance program effectiveness and reach. This involves analyzing data from various sources, such as institutional records, demographic studies, and engagement metrics, to identify target populations and tailor outreach efforts. By employing data-driven insights, programs can address gaps in contact information, track participant progress, and refine strategies to meet veteran learners' needs better. Effective data utilization ensures resources are allocated efficiently, barriers to enrollment are minimized, and overall program success is maximized.

For veterans, utilizing data effectively involves analyzing data on military-acquired skills, degree completion, and employment outcomes, ensuring digital credentials address gaps in education and workforce readiness.



OBJECTIVE: Utilize existing data to identify and contact eligible veteran learners to develop a practical digital wallet and continuously improve its design and user interface.



METHOD:

1. Leverage data to identify populations

- » Analyze existing data from institutional records, demographic studies, and engagement metrics to identify target populations such as veterans and adult populations.
- » Establish data collection and data sharing agreements with educational institutions, community organizations, and government agencies to maintain accurate, up-to-date contact information for potential participants. The agreements ensure that outreach efforts reach the intended audience and help track long-term engagement, improving the overall effectiveness of the program.

2. *Use data for strategic outreach*

- » Use data-driven insights to refine outreach strategies and improve communication with potential participants. Track metrics such as participant engagement rates, dropout rates, and completion rates to identify patterns and areas for improvement. The information helps tailor messaging and outreach channels for specific demographics, ensuring that veterans and other target populations receive accurate, relevant information about the program.

3. *Survey wallet holders for improvements*

- » Provide digital wallet surveys to participants, gathering valuable feedback on their experience using the wallet. Ask wallet-holders whether the tool helped them identify skills gaps, find relevant career pathways, or apply for job opportunities. Use the feedback to improve the digital wallet's functionality and relevance to users. By collecting and analyzing feedback, the program can better support veterans and other learners in achieving their educational and career goals, while also demonstrating the tangible benefits of the digital wallet to potential future users.

ESTIMATING PROGRAM COSTS

Estimating program costs ensures financial resources are allocated effectively in the planning and implementation of digital credential programs. It involves calculating program development, marketing, technology infrastructure, and support services expenses. Accurate cost estimation includes considering direct costs, such as staff salaries and technology investments, and indirect costs, such as administrative overhead and potential contingency funds. By thoroughly assessing and forecasting program costs, stakeholders can develop a realistic budget, secure necessary funding, and ensure the program's sustainability and long-term success.



OBJECTIVE: Develop a comprehensive and accurate estimate of program costs to ensure adequate resource allocation and financial planning so the process is realistic and detailed.



METHOD:

1. *Identify Comprehensive Cost Categories*

- » Break down potential cost categories, including both direct costs (e.g., staff salaries, technology infrastructure, marketing) and indirect costs (e.g., administrative overhead, contingency funds) relating to program implementation. The detailed categorization provides a holistic view of the program's financial needs, enabling better budget management and resource allocation.

2. *Analyze market rates and engage experts to ensure accuracy*

- » Gather and analyze data on current market rates for essential services such as technology solutions, staffing, marketing, and support services. Ensure cost projections for services reflect market trends and are regionally relevant. This ensures that the budget estimates remain aligned with the financial realities of implementing the program and minimize risk.
- » Seek the expertise of financial experts and stakeholders to review, validate, and refine cost estimates.

3. *Develop a phased budget plan and iterate to reflect changes*

- » Create a detailed budget plan that breaks down all identified costs into specific phases: development, implementation, and maintenance. The phase-by-phase categorization allows for precise tracking and management of expenses as the program progresses, which ensures financial resources are allocated efficiently and avoids over-expenditure in any single phase.
- » Conduct a thorough cost-benefit analysis to evaluate the program’s potential return on investment (ROI). Assess whether the anticipated outcomes—such as improved educational attainment, higher employment rates, or expanded skills—justify the financial outlay.
- » Regularly review and update cost estimates based on actual expenditures and changes in project scope or market conditions to maintain an accurate and responsive financial plan.

MAKING COST CONSIDERATIONS

Cost considerations are essential for the successful implementation and sustainability of digital credential programs. Making cost considerations involves evaluating various financial aspects, including development expenses, technology investments, marketing efforts, and ongoing operational costs. Key factors include direct costs such as staffing, platform maintenance, credentialing processes, and indirect costs like administrative support and contingency planning. By carefully assessing cost elements, states can create a comprehensive budget, secure appropriate funding, and ensure efficient resource allocation. Effective cost management helps achieve program goals while maintaining financial viability and long-term success.



OBJECTIVE: Analyze and estimate program costs to develop a realistic and sustainable budget that ensures the program’s financial health and long-term success.



METHOD:

1. *Estimate program implementation costs*

- » Analyze and estimate the costs associated with the program’s implementation including student and institution eligibility parameters (e.g., number of students expected to participate, institutional resources needed).
- » Factor in state grant programs, which may provide financial assistance to students, income distributions to understand the financial backgrounds of participants, and tuition costs. Accurately estimating costs ensures the program is feasible and affordable for both students and institutions, allowing for informed decision-making in resource allocation.

2. *Conduct thorough financial planning*

- » Perform detailed financial planning to ensure that all aspects of the program are adequately funded (i.e., staff, technology, support services, marketing, and operational costs).
- » It is also important to identify potential funding sources such as state grants, federal funds, philanthropic donations, and institutional aid. By planning, the program can allocate resources efficiently and minimize the risk of financial shortfalls during implementation.

3. *Establish a sustainable funding model*

- » Develop a sustainable funding model that ensures ongoing operations and future growth of the program. It should include using a balanced mix of funding sources including public grants, private donations, and institutional funds.
- » Incorporate mechanisms for continuous financial review so that adjustments can be made as new information and feedback become available.

PLANNING FOR SUSTAINABILITY

Sustainability is fundamental for the long-term success and impact of digital credential programs. It involves creating a framework that ensures ongoing financial stability, operational efficiency, and continuous value for participants. Key aspects of sustainability include securing diverse funding sources, employer ROI-based models, establishing cost-effective processes, and regularly evaluating program outcomes. Developing partnerships with stakeholders, leveraging data for informed decision-making, and adapting to evolving needs contribute to a program's sustainability. By focusing on these elements, digital credential programs can maintain effectiveness and relevance, providing lasting benefits to learners and the broader workforce.



OBJECTIVE: Explore funding sources and financial sustainability strategies to secure long-term economic stability and operational efficiency, ensuring the program's lasting impact and relevance.



METHOD:

1. *Diversify funding sources*

- » Explore various funding sources to ensure the program's long-term viability including state and federal grants, private foundations, corporate sponsorships, and institutional funding. Consider innovative financial sustainability strategies such as fee-for-service models, revenue from professional development offerings, or strategic partnerships with industries in need of a skilled workforce. Diversifying funding sources helps create a broad and stable financial foundation that supports ongoing program operations while reducing dependency on a single funding source.

2. *Build partnerships with funding stakeholders*

- » Develop strong partnerships with potential funding partners, including philanthropic organizations and corporate sponsors. Establish a network of reliable revenue streams that create grant proposals, seek institutional partnerships, and pursue industry-aligned sponsorships. Building relationships requires clear communication of the program's value and impact, aligning the program's goals with the priorities of potential partners.

3. *Continuously evaluate and adapt strategies*

- » Regularly assess program outcomes to evaluate its ongoing relevance and financial sustainability. Collect data on key performance metrics such as participant engagement, job placement rates, and employer satisfaction to measure the program's impact. Adjust financial strategies to align with changing market demands or shifts in student needs so that the program stays responsive and relevant.

V. EVALUATION STRATEGY

An evaluation strategy leverages tools for assessing the effectiveness and impact of digital credential programs. This involves developing a systematic approach to measure program outcomes, track participant progress, including jobs landed, and assess overall success. Key components include setting clear metrics and performance indicators, collecting and analyzing data, and gathering feedback from participants and stakeholders. Regular evaluations help identify strengths and areas for improvement, ensure program goals are met, and inform future enhancements. By implementing a robust evaluation strategy, programs can demonstrate their value, optimize their operations, and continuously adapt to meet the needs of learners and employers.

The evaluation strategy stage includes defining evaluation metrics, calculating return on investment, and implementing continuous improvement.

DEFINING EVALUATION METRICS

Evaluation metrics are essential for measuring the success and impact of digital credential programs. The metrics include key performance indicators such as enrollment numbers, completion rates, participant satisfaction, and employment outcomes. Additionally, metrics should assess the effectiveness of program components, such as training quality and support services. By establishing and tracking metrics, programs can gain valuable insights into their performance, identify areas for improvement, and make data-driven decisions to enhance overall effectiveness. Clear and relevant evaluation metrics ensure that programs meet their goals and continuously provide value to participants and stakeholders.



OBJECTIVE: Regularly assess program effectiveness to gain insights into program performance and identify areas for improvement to ensure continuous value delivery.



METHOD:

1. Define key performance indicators

- » Establish key performance indicators (e.g., enrollment numbers, completion rates, participant satisfaction, employment outcomes) to measure the success and effectiveness of the program. Participant satisfaction surveys offer valuable feedback on the quality of the program and employment outcomes will help measure the program's success in transitioning learners into the workforce.

2. Analyze data and gather feedback

- » Conduct regular data analysis and solicit feedback from stakeholders such as participants, faculty, employers, and community partners, to inform decision-making and guide continuous improvement efforts.
- » Use data analytics to track trends, identify gaps, and make evidence-based decisions to enhance program delivery. Gathering stakeholder feedback, through surveys or focus groups, helps ensure the program addresses the needs of all participants and allows for agile adaptations in response to challenges or evolving needs.

3. *Evaluate alignment with economic and equity goals*

- » Assess the alignment between credentials and state economic development priorities to ensure the program is addressing workforce demands in high-growth industries such as health care, technology, and cybersecurity. Also, evaluate the program's equity outcomes to determine whether it is successfully reaching and benefiting underserved populations, such as low-income students, veterans, and minority groups.
- » By aligning credential offerings with economic needs and prioritizing equity, the program can maximize its impact both in terms of economic mobility and social inclusivity.

CALCULATING RETURN ON INVESTMENT

Returns on investment (ROI) are a critical measure of the value generated by digital credential programs relative to their costs. It includes evaluating the benefits of program participation, such as improved employment outcomes, increased earning potential, and enhanced skills development, against the financial investment in program development, implementation, and maintenance. By calculating ROI, stakeholders can assess the economic impact and effectiveness of the program, demonstrating its value and justifying continued or expanded investment. Effective ROI analysis ensures that resources are used efficiently and that the program delivers tangible, measurable benefits to participants and the broader workforce.



OBJECTIVE: Measure financial investments against program outcomes to demonstrate the program's value and justify continued or expanded investment.



METHOD:

1. *Calculate per capita costs*

- » Determine the per capita costs by dividing the total program expenses by the number of participants. Understanding the cost per individual allows for comparison with baseline groups, such as previous cohorts or similar programs, and ensures the program's financial sustainability and effectiveness.

2. *Assess financial investments against outcomes*

- » Measure financial investments against program outcomes to evaluate the economic impact and overall effectiveness. Consider metrics like graduation rates, job placement, and skill acquisition as key outcomes to determine whether the funds invested are yielding tangible results. Assessing the return on investments is essential for ensuring the program's financial viability and its contribution to broader institutional or workforce goals.

3. *Report ROI findings to stakeholders*

- » Regularly communicate ROI findings to stakeholders, such as funders, educational institutions, and community partners. Provide detailed reports that highlight the program's financial efficiency, its positive impact on participants, and its contributions to economic and workforce development.

IMPLEMENTING CONTINUOUS IMPROVEMENT

Continuous improvement is an imperative principle for enhancing the effectiveness and relevance of digital credential programs over time. This involves regularly reviewing and refining program processes, outcomes, and feedback mechanisms to adapt to evolving needs and challenges. By employing a cycle of assessment, analysis, and action, programs can identify areas for enhancement, implement necessary changes, and monitor their impact. The proactive approach ensures the program remains responsive, effective, and aligned with the goals of both learners and employers, ultimately driving sustained success and maximizing value.



OBJECTIVE: Use evaluation results and stakeholder feedback to iteratively enhance the digital wallet program and continuously improve the program to maintain its relevance, effectiveness, and value for participants.



METHOD:

1. ***Establish a continuous feedback loop***

- » Implement a continuous feedback loop to regularly collect and analyze evaluation results and stakeholder feedback. Use surveys, focus groups, and performance metrics to gather insights and identify opportunities for improvement.

2. ***Create adaptive management strategies***

- » Develop adaptive management strategies to proactively address challenges, introduce new features, and improve service delivery. Such strategies allow the program to adjust based on the ongoing feedback and changes in the educational or job market.

3. ***Regularly update and scale program components***

- » Continuously update program components to ensure the program remains relevant, effective, and scalable. Regularly reviewing the curriculum, support services, and technological infrastructure ensures it meets the evolving needs of veteran learners and professionals.

CONCLUSION

Higher education can better serve learners, particularly veterans, by adopting accessible, verifiable, and flexible digital credential systems. The design template offers a structured, scalable approach to the implementation of digital credentials by addressing critical areas such as degree attainment, stakeholder engagement, program design, re-engagement strategies, cost estimation, and ongoing evaluation. By leveraging digital wallets and integrated workforce training, institutions can empower students—especially veterans—to translate their experiences into recognized skills, improving educational outcomes and career trajectories. Ultimately, the adoption of the framework will help close gaps in workforce participation, create equitable access to education, and contribute to the development of a more diverse, skilled, and resilient talent pipeline.