Recommendations to Align Policies to Support Career Pathways that Include Industry Credentials

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Formed in 2014, Workcred is an affiliate of the American National Standards Institute (ANSI). Its mission is to strengthen workforce quality by improving the credentialing system, ensuring its ongoing relevance, and preparing employers, workers, educators, and governments to use it effectively. Workcred's vision is a labor market that relies on the relevance, quality, and value of workforce credentials for opportunities, growth, and development.

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About the Project

Higher education policy is placing greater emphasis on the types of outcomes students achieve after graduation from an institution of higher education. These outcomes may include obtaining a job with a family-sustaining wage, workforce readiness, or earning an industry credential that validates that a learner has a marketable skill. To meet these outcomes, there must be intentional and committed alignment of policies that guide the development and awarding of credentials, allowing learners to successfully transition into the workforce or continue their education.

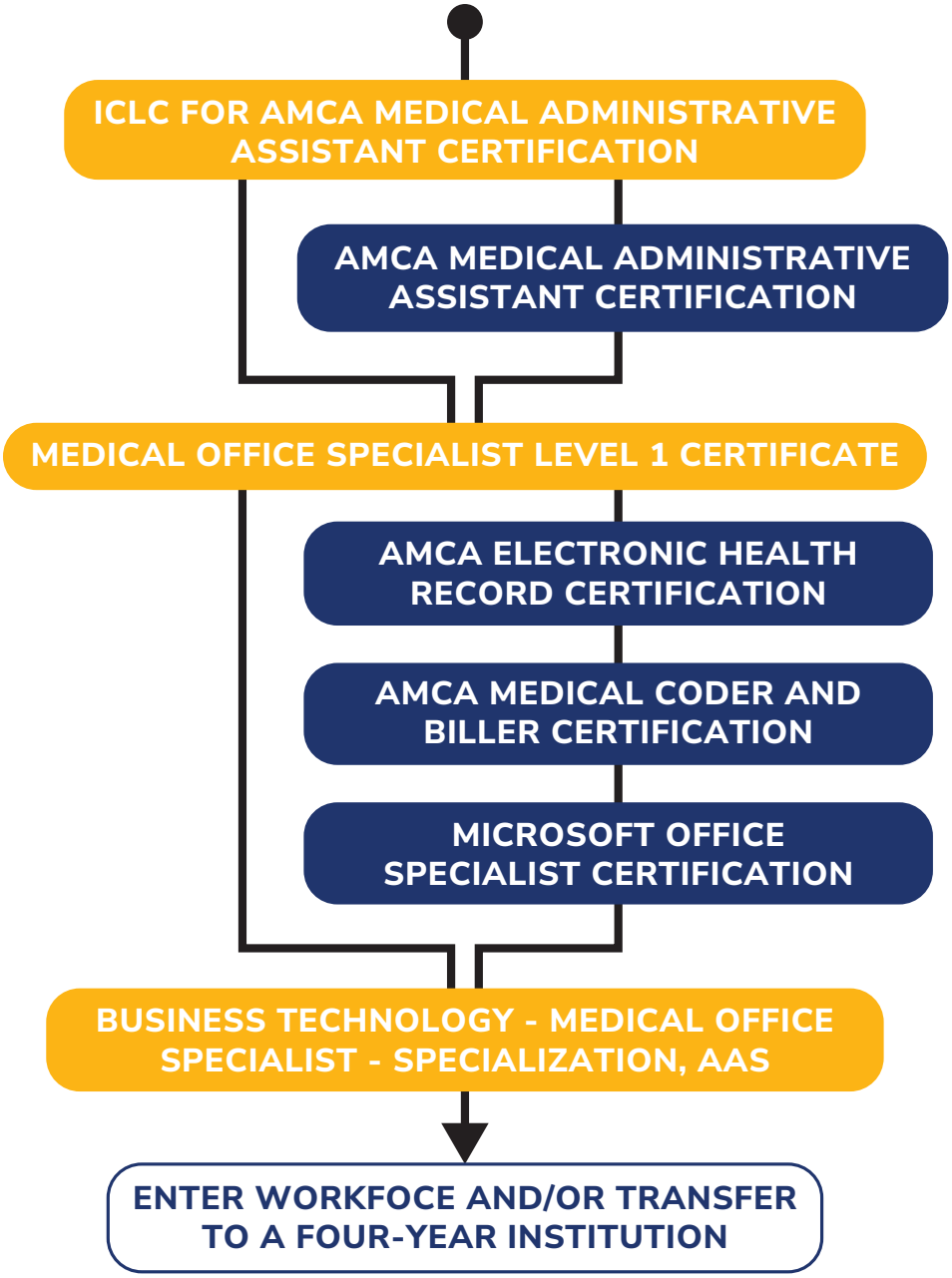
Workcred partnered with Houston City College (HCC) to examine how it is aligning policies to better support learners to complete industry certification + certificate/degree pathways, earn postsecondary credentials of value, and enter the workforce.[1] The passage of House Bill 8 (HB 8) and other updates to policy in Texas has resulted in a substantial change to how community colleges are funded. This document provides recommendations and lessons learned about how HCC created, revised, and implemented institutional policies and processes to align with these changes in policy for Texas.

A Mindset Change

During the 89th Texas Legislative session in 2023, HB 8 was passed, which transformed community college funding. HB 8 replaced the existing enrollment-based funding structure for community colleges with a finance model that is based on outcomes that focus on student success and workforce needs. The enactment of HB 8 in Texas led to a shift from a focus on the number of contact hours to a focus on completion of credentials of value, dual-credit enrollment, and transfers to four-year institutions.

This shift required community colleges to use labor market information (LMI) to gather evidence on performance and insights that can be used to develop better programs that improve student outcomes, and ultimately build an educated and skilled workforce that contributes to the growth of the Texas economy. To meet this goal, the Workforce Program Research and Development (WPRD) staff at HCC met with program staff to review the academic credentials (e.g., occupational skills awards, advanced technical certificates, level one and two certificates, and degrees) and the third-party industry credentials (e.g., certificates, certifications, and licenses) offered in each of the 63 workforce programs. The purpose was to verify whether the credentials met the definition of a credential of value and to determine if any credentials should be revised or retired. This resulted in depictions of the pathways being created for all of the workforce programs. These graphics better portrayed how a student could progress from non-credit (where applicable) to credit, complete the pathway, and enter the workforce or continue their education by transferring to a four-year institution (see Figure 1).[2]

Figure 1: Example of a Pathway Map from HCC



While this process focuses on maximizing funding from HB 8, it also aims to achieve another goal – to ensure that students who complete their college program at HCC and subsequently enter the workforce are prepared for good jobs, which encompasses a broader definition than what is outlined in the legislation. A good job generally is defined as meeting criteria such as providing family-sustaining wages, offering benefits, resulting in career stability, leading to advancement opportunities, and having safe and supportive working conditions.[3] By also focusing on creating pathways to good jobs, HCC ensures that program and pathway design, advising, enrollment strategies, and community partnerships are oriented toward long-term student success—not solely compliance to legislation or revenue generation.

This process also led to the implementation of other strategies to improve the integration of non-credit and credit courses, create systems to capture information about credentials awarded by third-parties, and provide credit for prior learning (CPL) so that individuals who already had knowledge and skills from outside of higher education (e.g., military experience, industry certifications, work experience) could be recognized for credit.

Lessons Learned and Recommendations

HCC's alignment of its institutional policies with HB 8 can serve as a guide for other institutions to better support learners to enter and complete career pathways that include industry credentials. The following are some of the lessons learned and recommendations from this project.

Establish an Authorized On-Campus Testing Center

For students to earn a third-party certification or license, they must take and pass a standardized exam, which is typically offered by a credentialing organization and administered by a test vendor (e.g., PearsonVUE, Prometric, PSI). However, it is not as simple as it sounds. There are a few things that can make it difficult or impossible for students to take the exam. For example, the testing site may be in a different part of the community or in a different city altogether. And, even though some certification exams may have an online option, many learners may not have the computers with the necessary technology capabilities, or understand the strict environment that this type of test-taking requires (e.g., no one else in the room, etc.), which could automatically disqualify the candidate.

To help reduce as many of these barriers as possible, community colleges should establish a third-party testing center on their campus. By locating a testing center on campus, it increases the likelihood that more students will take the exam since they can easily access the exams and more easily understand the exam scheduling process and procedures. This can positively impact the number of students who earn a certification or license, therefore improving job placement prospects and improving pathways to employment with higher wages. Faculty are also more interested in incorporating industry credentials into their programs if they know the student can easily access a location to take the required exam(s).

Employers also benefit if more students earn industry certifications and licenses. These credential holders provide a pipeline of qualified employees, and the credential provides employers with validation that the students have met a level of competence necessary for an occupation. In addition, by building pathways that integrate industry credentials, it improves the alignment between the training at the community college and the employer's expectations about finding candidates with the skills required for careers.

In order to establish an authorized testing center on campus, testing vendors may require sites to meet minimum technical (e.g., hardware and software) and facility (e.g., environment, signage, monitoring) requirements, which may necessitate the community college to make a financial investment. Some testing vendors require that the testing center must provide access to the entire community, not just community college enrolled students. In addition, community colleges need to identify whether the testing center staff has the necessary qualifications

to proctor such high-stakes exams, and if not, upskill current staff or hire or contract with qualified proctors for specific exams. Other things that need to be addressed include determining the hours of operation to ensure that students have access at times that meet their schedules and that any specialized hardware or software required to take specific exams is acquired and understood by staff.

Increasing access to on-campus testing for third-party exams also supports community colleges in meeting goals of HB 8 by ensuring that students have opportunities to earn credentials of value. And, increasing credential attainment strengthens HCC's ability to capture HB 8 performance funding tied to workforce-aligned credentials, completion, and high-wage employment outcomes.

Develop and Maintain Systems to Capture Data about Credentials Awarded by Third-Party Organizations

Centralized tracking of third-party credential data ensures that all student achievements are visible, recognized, and leveraged to support economic mobility—while enabling the college to make strategic, data-informed decisions that enhance both institutional performance and student success. Reliable, disaggregated data on credentials also can advance a community college's broader mission by strengthening curriculum alignment, supporting employer partnerships, and identifying equity gaps in high-demand, high-wage pathways. This type of data can help the college proactively address disparities in credential attainment, improve student advising, evaluate the return on investment of programs, and support continuous improvement for accreditation and program review. However, many credentials that qualify for outcomes funding under HB 8 are issued by external organizations, rather than the community college or other higher education institutions. Yet, a community college's ability to track whether or not students earn these credentials is essential to demonstrating its workforce impact and meeting HB 8 requirements. Without a robust data infrastructure for this information, community colleges risk underreporting credentials of value, missing funding opportunities, and lacking evidence to prove program effectiveness.

At HCC, the majority of industry credential data is currently reported by faculty. This approach requires faculty to try to obtain the information directly from the students. But this is time-consuming, lacks a coordinated effort, and may not give the college an accurate depiction of pass/fail rates. Solving this problem requires a multiple-step approach that begins to address immediate needs, while simultaneously building a long-term solution. For the short term, there could be discussions among the college and third-party credential organizations about the opportunities that exist for the college to obtain pass/fail information with the student's consent directly from the credential provider. This could be done by purchasing exam vouchers or requesting that students to give consent as part of the registration process before taking the exam. This would allow the college to import the data directly into the institution's student information system and produce longitudinal reports to better determine student success. These reports could also determine what additional resources are needed support the use of industry credentials for student success, meet more performance-based metrics, and most importantly, improve marketability for students to obtain employment in their respective industries.

The longer-term strategy is to develop a single repository where industry credential issuers enter into data sharing agreements that provide permission to allow their data on pass/fail rates to be matched with other

public and private data sources, and is shared with educational institutions that have students who have taken a certification or licensure exam. This type of data system would allow community colleges to produce accurate, audit-ready data for the state, validate learners' industry credential attainment, and illustrate alignment with regional workforce needs, all of which strengthen a community college's credibility with policymakers, employers, and external funders.

The good news is that there has been some progress made toward developing this system with the launch of CredLens in 2024. CredLens is a nonprofit organization that was established as a national data trust to show verified employment and wage outcomes for non-degree credentials. It is early in the development of CredLens, so more time will be needed to see if it can be a solution for providing community colleges or states with data that can be used to provide information to meet legislative mandates, such as HB 8.

Participate in Efforts to Raise Credibility and Transparency of Credentials

The credential landscape has become more complex with a continually increasing number of credentials being offered across all industries. According to Credential Engine, there are nearly 7,000 certifications and more than 14,000 licenses in the United States.[4] As a result, there is a need for community colleges to advocate for and participate in efforts to raise the transparency of credentials, so that students, faculty, and employers know which credentials have labor market value and can be incorporated into pathways that lead to high-wage and/or high-demand careers. Colleges must also include a focus on policymakers to secure support for funding models, policy improvements, and regulatory alignment that benefits their students. Efforts might include providing data on how credentials of value support workforce development in high-priority sectors, demonstrating how specific career pathways strengthen economic mobility for students, and highlighting barriers that may limit credential transparency.

This requires the creation of a cross-functional team at the college that develops and implements strategies to improve the understandability and transparency of credentials. At HCC, this team is composed of representatives from the WPRD department; the office of academic affairs; the research, analytics, and decision support department; the student engagement and success department; and leaders of some of the 14 HCC Centers of Excellence. The team must develop tools and resources that empower students to make informed decisions about credentials, stackable pathways, and career options by including information about the value, cost, time to completion, and wage outcomes for credentials in each program. This can be done by incorporating information about the economic value of credentials into career pathway maps and utilizing this information during advising sessions, student orientation activities, and coaching focused on earning an institutional credential leading to licensure or certification (ICLC).

To underpin this effort, there must be reliable and up-to-date LMI that provides data about wage outcomes, job openings, employer demand, and a credential's return on investment as discussed in the previous section. There also should be a centralized credential registry or dashboard that showcases the value of non-credit and credit credentials. For example, HCC publishes information about their credentials to the **Texas Credential Library**,

a partnership among Credential Engine, the Texas Higher Education Coordinating Board, the Texas Education Agency, and the Texas Workforce Commission to provide transparency to all Texans about the credentials that are issued by postsecondary institutions in the state.

In addition, processes must be in place at the college to ensure that faculty have the information and infrastructure they need to align curricula with credentials that employers recognize and desire. This includes giving faculty access to LMI that can be used to identify high-value credentials and ensuring discussions about credentials of value and their return on investment are integrated into advisory committee meetings, curriculum mapping, and program reviews. It also includes providing opportunities for faculty to upskill, meet requirements of their field, and/or earn and maintain any credentials of value used in their program(s). To accomplish this, HCC provides $2,000 annually for faculty and staff professional development activities.

Employers have knowledge and expertise to also provide insight into what they view as credentials of value in their industry through participation in advisory committees, a structured curriculum alignment and program review process, and industry partnerships. Employers should provide data about credentials that they use when hiring and explain why they value the credentials. In addition, employers should use this opportunity to recommend credentials for integration or alignment with college programs.

Without data and transparency, students may invest time and money into credentials that do not lead to meaningful employment or upward mobility. For colleges, lack of clarity makes it difficult to design programs that meet employer needs and maximize performance-based funding. Advocacy ensures that colleges highlight the credentials that truly matter—ones that are validated by employers, stackable toward higher education pathways, and aligned with regional wage and demand data. This also aligns directly with HB 8, which bases funding for colleges on outcomes related to credentials of value, high-wage employment, and transfer success. By meeting this goal, colleges strengthen student success, workforce impact, and institutional sustainability.

Use Career Clusters to Guide Programmatic Redesign and Strengthen Collaboration

Using a framework, like the National Career Clusters® Framework designed and modernized by Advance CTE, can help colleges enhance program quality, strengthen cross-disciplinary collaboration, build or revise sustainable pathways that improve student success and economic mobility, and align educational offerings with labor market needs. Modernized career clusters are a critical tool to guide programmatic redesign because the clusters can be used to clarify competencies, identify stackable credentials, and understand the various entrance and exit points in a pathway that lead to credentials of value and high-wage careers. For example, HCC mapped shared digital literacy competencies across several programs, including IT, business, healthcare, and logistics, which resulted in a streamlined curriculum, a reduction of course duplication, and a refinement of the sequence in each pathway that better reflected employers' skills expectations. Career clusters can also be used to guide the integration of licensure and certification preparation, helping to ensure that each program remains aligned with industry skill needs.

Career clusters also facilitate interdisciplinary program collaboration (e.g., healthcare and IT collaborate for electronic health records), which is critical to prepare students for employment since many work environments require employees to possess skills that are taught in different disciplines. Faculty can use career clusters to

help identify programs where there are opportunities to co-design curriculum, develop cross-disciplinary course modules, and create joint employer partnerships. This collaboration enhances program relevance and expands opportunities for innovative teaching and learning. In addition, students benefit from having access to streamlined and flexible pathways, and employers gain access to employees and job-seekers that have the needed skills and competencies.

Focus Efforts on High-Demand Fields

Texas identifies high-demand fields in a region using a methodology that includes strong labor market demand, projected job growth, and employer-validated skill needs. The high-demand fields consist of academic fields identified by their Classification of Instructional Programs (CIP) codes, and cross-referenced with the corresponding high-demand occupations.[5] This provides a structured, data-driven way for colleges to identify high-demand instructional programs, courses, and majors. The use of CIP codes guides HCC's decisions about where to expand course offerings, embed industry credentials, develop new short-term training programs, and strengthen alignment between non-credit and credit course offerings. It also impacts where to invest in curriculum realignment, new facilities, or professional development to meet industry trends in high-demand fields.

The CIP codes can also be used in combination with opportunity sectors to prioritize efforts. For example, HCC maps the high-demand CIP codes to the Gulf Coast region opportunity sectors—such as healthcare, advanced manufacturing, IT/cybersecurity, logistics, or energy—to focus investments in the college programs that are most likely to prepare students for in-demand, high-quality jobs. Colleges can use these resources as a strategic lens to ensure their efforts are being directed to support pathways that offer students the greatest opportunity to be prepared for careers that offer economic mobility.

Strengthen Alignment Between Non-Credit and Credit Courses and Programs Using Industry Credentials

There is a need to strengthen the alignment between non-credit and credit credentials and programs in community colleges. Strategies to improve this relationship include developing non-credit courses that mirror their credit counterparts, creating ICLCs, increasing CPL attainment, and meeting the criteria for funding under HB 8.

One strategy HCC used to link non-credit and credit courses was to prioritize the development of ICLCs, which comprise a series of courses that represent the achievement of skill proficiencies that lead to licensure or certification, and can be for credit or non-credit. ICLCs provide more opportunities to better connect short-term training and academic pathways so that students can more easily determine what requirements are necessary for them to meet their career goals. Competencies provide a common language that can be used by both the non-credit and credit programs, which facilitates implementation of programs in a more consistent and transparent way.

Colleges can also ensure courses with like competencies are mirrored, where non-credit and credit students are taught together using the same faculty, learning outcomes, competencies, and assessments. This type of approach is especially useful in the development of ICLCs. This method provides immediate alignment of content, standards, and quality, and supports the rapid scaling of credentials by aligning instruction with industry standards and reducing the barriers between non-credit and credit pathways.

Strengthening alignment between non-credit and credit pathways is also directly connected to HB 8, which bases funding on student outcomes for credentials of value, transfer success, and high-wage employment. Some credentials of value that lead to high-wage jobs are industry certifications and licenses. Yet, these credentials are designed to be separate from higher education, and historically are not counted in state funding formulas unless connected to credit programs. However, there are some key characteristics that make industry credentials a useful tool in the alignment process – they consist of a standardized exam, where exam content is based on competencies required for an individual to perform a specific occupation, and they are employer-validated. In addition, most credentialing organizations that develop certification and licensure exams make their exam blueprint publicly available. Faculty can use the competencies in the exam blueprint to align their curricula and ensure that students receive consistent instruction regardless of where they begin their career pathway.

There was also a greater emphasis on providing CPL so that individuals who already had knowledge and skills from outside of higher education could be recognized for credit. Many students who pursued CPL at HCC had already earned an industry credential and wanted to accelerate their education by saving time and money. HCC explored opportunities to strengthen this offering by using exam blueprints to create seamless articulation of skills and competencies with learning outcomes so that they can better award CPL. This provides another opportunity to reduce duplication, accelerate student achievement, and create stackable pathways. The use of these exam blueprints also helps the college remain aligned with employer expectations, build trust with employers and advisory committees, and inform discussions around curriculum realignment. At HCC, a shared governance structure was also developed for the advisory committees that leverages industry input to improve both credit and non-credit offerings. In addition, HCC established a task force to identify opportunities to improve the alignment between credit and non-credit courses.

Colleges must strive to create seamless pathways where non-credit programs, industry credentials, and workforce training can lead to credit programs. Students benefit by having access to more affordable pathways, course content that is no longer duplicated in different credentials, and industry credentials that can be applied toward a credit certificate and/or AAS degree. Faculty can reduce redundancies in course content between non-credit and credit offerings and enhance collaboration between those teaching credit and non-credit courses. Employers benefit by seeing how their current and future workforce needs can be met by pathways at the college that link industry credentials, short-term training opportunities, and long-term career development. And, colleges can better capture the outcome measures for earning credentials of value. By building connections between academic programs and industry credentials, colleges can avoid the loss of funding that is more likely to occur when these systems operate separately. Better alignment ensures colleges can convert all credential attainment into measurable outcomes that qualify for HB 8 funding.

Conclusion

HCC engaged multiple departments across the institution to identify how the new funding model impacted the institutional policies and processes that needed to be adopted or revised. These efforts resulted in changes to ensure HCC awards and programs are aligned with regional labor market needs and provide students with opportunities to earn credentials of value that lead to careers that provide economic mobility. These lessons learned provide guidance for other community colleges as they build pathways that lead to credentials of value, while meeting required outcomes metrics. By focusing on performance-based metrics, community colleges have strong evidence about how their programs are preparing a workforce to support a stronger economy.

Endnotes

1 Author's Note: See the related project case study here: *Aligning Policies and Practices: A Case Study about Houston City College* (Workcred, December 2025): **https://share.ansi.org/wc/Shared%20Documents/Workcred-Reports/Community-College-Pathways/Aligning-Policies-and-Practices-HCC.pdf**.

2 *Strengthening Business Technology Pathways: A Case Study about Houston City College* (Workcred, December 2025): **https://share.ansi.org/wc/Shared%20Documents/Workcred-Reports/Community-College-Pathways/Strengthening-Business-Technology-Pathways-HCC.pdf**.

3 "Training and Employer Guidance Letter No. 07-22" (Section 4 Key Attributes of Good Jobs), Employment and Training Administration, Advisory System, U.S. Department of Labor, January 18, 2023, **https://www.dol.gov/sites/dolgov/files/ETA/advisories/TEGL/2022/TEGL%2007-22/TEGL%2007-22%20%28Complete%20PDF%29.pdf**.

4 *Counting Credentials 2025* (Credential Engine, 2025), accessed December 11, 2025, **https://credentialengine.org/all-resources/2025-counting-credentials**.

5 "Title 19 Education, Part 1 Texas Higher Education Coordinating Board, Chapter 13 Financial Planning, Subchapter T Community College Finance Program: High-Demand Fields, §13.594 High-Demand Fields Methodology," Texas Administrative Code, January 31, 2020, **https://texas-sos.appianportalsgov.com/rules-and-meetings?$locale=en_US&interface=VIEW_TAC_SUMMARY&queryAsDate=03%2F12%2F2025&recordId=218156**.