OCTOBER 2024

Connecting Education & Opportunity:

A Framework for Credential Impact in Tennessee

SCORE

Contents

3 Letter from SCORE President & CEO

4 Introduction: Connecting Education & Opportunity

11 A Credential Impact Framework Empowers Stakeholders to Take Action

17 Measure What Matters: Defining Credential Impact

20 Three Key Impact Measures: Earnings, Job Outlook, and Stackability

25 Envisioning a Credential Impact Framework

29 Next Steps to Advance a Framework in Tennessee

34 Conclusion

35 References

35 Acknowledgments

Dear Colleagues,

National and Tennessee-specific data clearly show that, on average, when students pursue education after high school — from a workforce-aligned technical credential to a bachelor's degree and beyond — the results are higher wages, increased economic independence, and the skills to weather future economic recessions and changes. College matters, and that includes all kinds of postsecondary experiences, not just traditional four-year degrees.

We're fortunate to live in a state that promotes the idea that education past high school leads to opportunity for a lifetime. At the same time, too few Tennesseans are finding this path to opportunity and future economic success.

Some students complete postsecondary education and land in jobs that do not require the degree or credential the student earned. Additionally, some Tennesseans find themselves in jobs that don't pay enough to offset the cost of pursuing their education. Others obtain a credential or degree, but it doesn't immediately lead to a job that enables economic independence in our ever-changing, dynamic economy. We likely all know a young person who started college but left before completing a degree or credential because the need for immediate income outweighed their career plans or personal dreams.

To help address these challenges and move us closer to a world where all students can pursue educational paths that advance opportunity, SCORE worked with dozens of partners who helped inform a framework so that Tennesseans can more clearly understand and assess the impact of specific degrees and credentials. Ultimately, this will help ensure more Tennesseans graduate with credentials and degrees that align with career opportunities and meet workforce need. The following pages detail the specifics of the framework as well as our learnings, which were informed by research and stakeholder engagement.

Our hope is for this framework to inspire discussion, debate, and — ultimately — change.

In the months ahead, we will use this framework like a pair of glasses. We will apply the lens of the framework to many different aspects of Tennessee's efforts in high school, postsecondary education, and workforce preparedness.

Higher education has the power to unlock opportunity. It did for me, and it does for millions of Tennesseans. Please join us in working to ensure that promise of opportunity is true for every Tennessee student.

Sincerely,

David Mansouri
President & CEO, SCORE

Connecting Education & Opportunity: A Framework for Credential Impact in Tennessee

For generations of Tennesseans, education has been the pathway that unlocks opportunity, giving students the tools they need to thrive in the classroom, career, and life. Stories from every corner of the state reflect what the data also show: When young people pursue education beyond high school — from a workforce-aligned industry credential to a four-year degree — they open doors to better job prospects, higher wages, and greater economic independence.[1]

Over the past two decades, Tennessee has been a leader in expanding access to higher education and workforce training. Landmark initiatives — like the Complete College Tennessee Act, the Tennessee Promise Scholarship, the Governor's Investment in Vocational Education (GIVE) Act, ApprenticeshipTN, and the Tennessee Investment in Student Achievement (TISA) Act — alongside increased investments in student advising programs, underscore our state's commitment to supporting Tennessee students across the education-to-career continuum.[2] And yet, for all the progress Tennessee has made, there remains a critical gap: Too many Tennesseans are still not realizing the full economic benefits of their education.

While more students are completing postsecondary education and training, their earnings vary widely based on the credential or degree they receive. Additionally, the state's labor force participation rate — the number of Tennesseans working or looking for work — continues to decline despite significant economic growth and workforce opportunity statewide.[3] These are clear signals that we must do more to better understand the ways in which education is (or is not) preparing students for jobs that enable economic independence.

Postsecondary Credentials Open Doors to Opportunity and Economic Independence

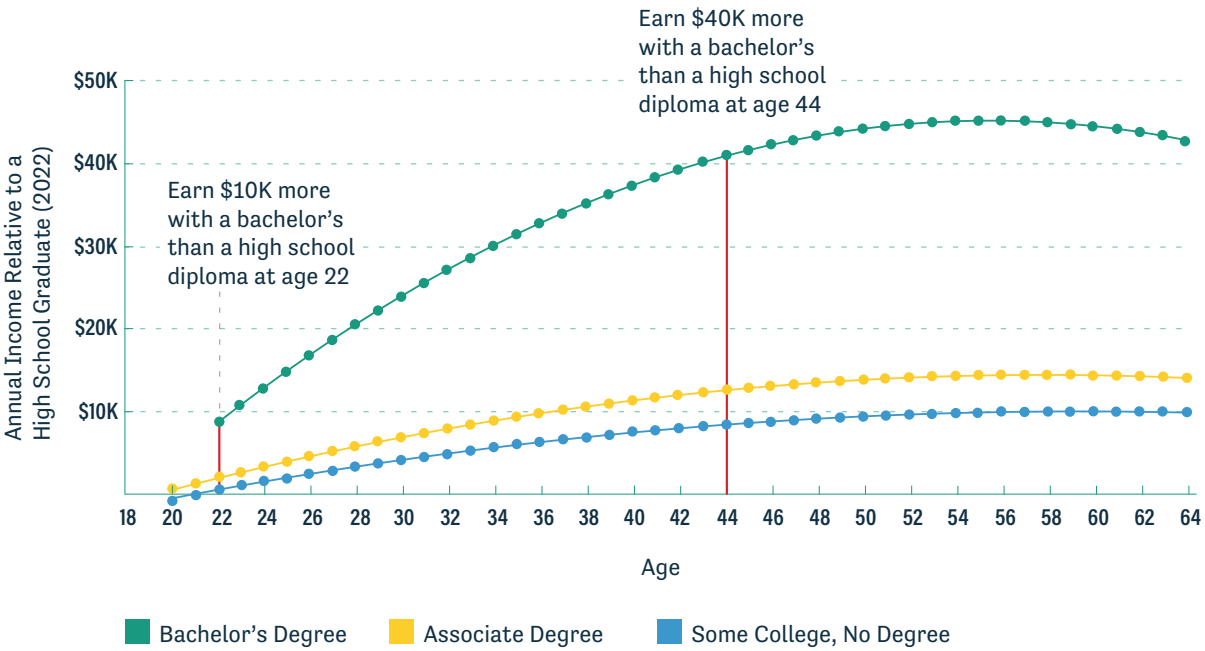


Figure 1. Estimates of additional earnings with a college education in Tennessee, relative to high school-educated workers, by age (2022).

Note: Author's calculations using 2011-2021 ACS samples, limited to 18-to-64 year-old high school graduates in the labor force, not attending school, and excluding workers with graduate degrees. Tennessee statistics additionally exclude individuals who have lived in the state less than one year.

Source: Carruthers, Celeste K. The Value of a College Education in Tennessee (2023).

A 2022 SCORE poll found that most Tennesseans believe the primary purpose of postsecondary education is to prepare students for career opportunities. However, more than half of young Tennesseans question whether the education system adequately prepares them with the skills, knowledge, and credentialing to succeed in the job market.[4]

Tennesseans Believe the Primary Purpose of a Postsecondary Education Is to Prepare Students for a Career

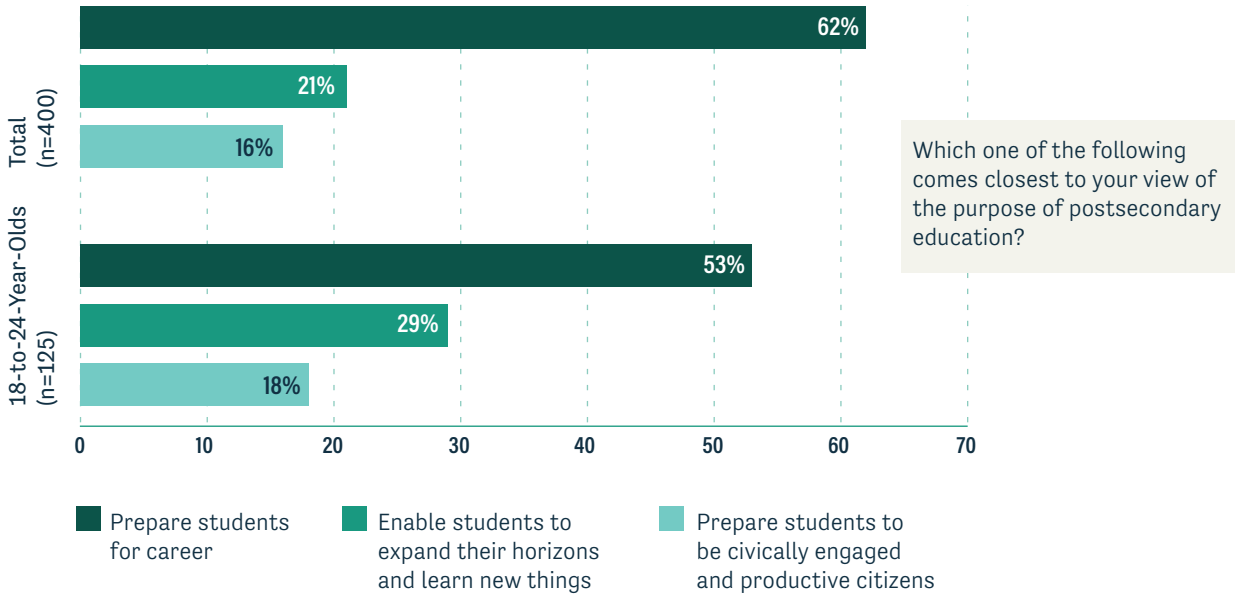


Figure 2: Tennessee statewide survey on education topics

Source: SCORE (2022).

Tennesseans Want an Education That Prepares Them for a Career, but Question Whether It Does

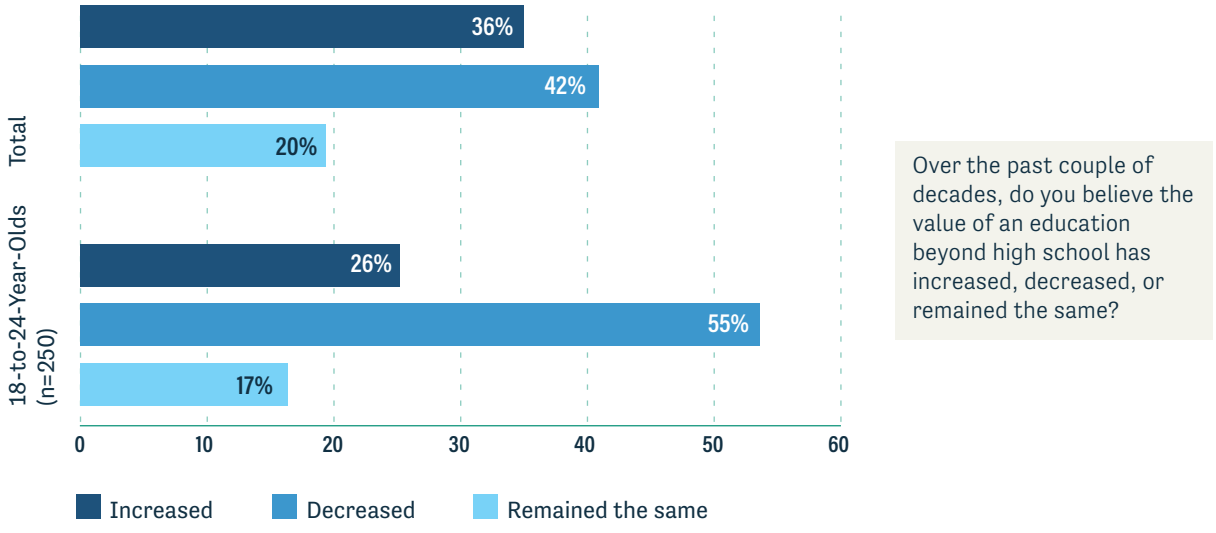
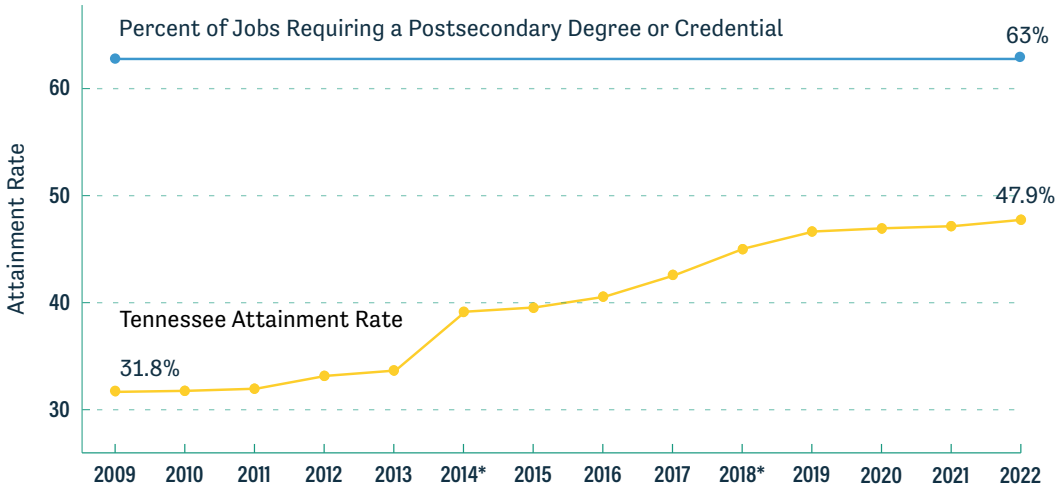


Figure 3: Tennessee statewide survey on education topics.

Source: SCORE (2022).

While 63% of Tennessee jobs require some form of training beyond a high school diploma, fewer than 50% of Tennesseans have earned a postsecondary credential. Beyond this attainment gap, we have no common framework to help us measure whether the credentials currently being earned are directly linked to high-wage, high-demand careers that meet Tennessee's workforce needs. Too often, students who invest time and money into postsecondary education find themselves underemployed or burdened by student debt without the economic returns they expected.[5] This is especially true for students from historically disadvantaged groups. In Tennessee, Black and Hispanic students who started high school in 2012 were half as likely as their White peers to earn degrees by 2022.[6]

Tennessee's Attainment Rate Continues to Increase, Yet We Do Not Know Whether Credentials Earned Provide Workforce Opportunity



*In 2014, workforce-relevant certificates were included in calculations. In 2018, industry-recognized certifications were included in calculations.

Figure 4: Attainment rate refers to Tennesseans ages 25-64 with a postsecondary degree or credential.

Source: Lumina Foundation, Stronger Nation Report (2024).

The impacts of the COVID-19 pandemic have further exacerbated our incomplete understanding of how postsecondary credentials support student success in the job market. The postpandemic labor market caused employers across all industries to experience job shortages, resulting in higher nominal wages and job opportunities for workers at all education levels. While many of these jobs offer short-term benefits in terms of immediate wages for recent high school graduates, these wages do not remain high over the long term and career advancement options are limited.[7]

Through these national and statewide workforce changes, students have been left to navigate important college and career decisions with limited information about credentials and degrees that could have a positive economic impact on their lives in the long run. Nationwide, students face over 1 million unique credential options from traditional institutions of higher education, nonacademic providers, massive online open courses (MOOCs), and secondary schools.[8]

Students Navigate a Complex Maze of Degrees and Credentials

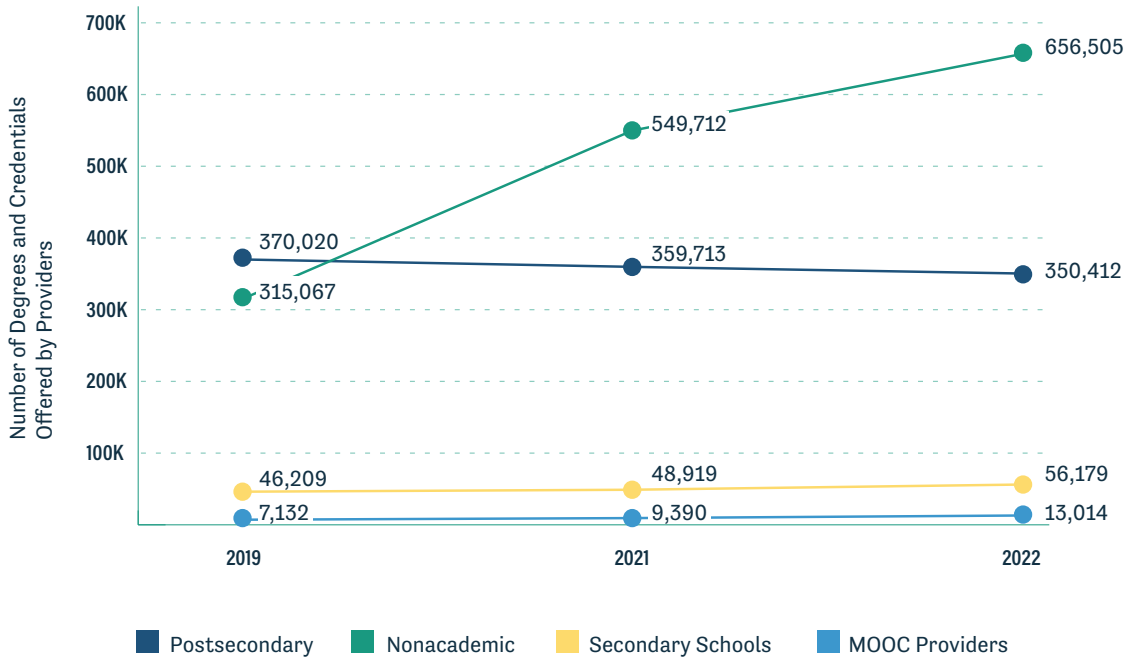


Figure 5: Number of degrees and credentials offered by providers (2019-2022).

Data Note: MOOC refers to massive open online courses. Secondary school counts include high school diplomas, alternative certificates from secondary schools, and high school equivalency credentials.

Source: Credential Engine (2023).

Tennessee now stands at a crossroads, where the future prosperity of its students and its economy depends on better supporting students through education toward workforce opportunities. We need to better understand which credentials advance workforce opportunity and then ensure all students can access pathways toward those credentials. This is where a framework that analyzes credential impact becomes essential.

Imagine if every student, from the moment they entered middle and high school, had access to clear, reliable information about how different credentials impact their future earning potential and career prospects in Tennessee and whether they provide a sufficient return on investment for their education and training.

Imagine how this information could help create more equitable pathways for historically underserved students, who are currently significantly less likely to enroll in and complete postsecondary education or workforce training. Students deserve to know whether the credential or degree they are interested in pursuing provides them a return on investment and sets them up for a successful career.

Picture a system where educators, policymakers, student advisors, and business leaders work together, using real-time data, to guide students toward educational pathways that truly set them up for success. Such a framework would benefit thousands of individual students and transform Tennessee's entire workforce, making our state more competitive in an increasingly dynamic economy.

Recognizing this need, SCORE worked for nearly a year with dozens of partners across the state to build a blueprint for an impact credentials framework that can help Tennesseans understand the impact of specific degrees and credentials on students' workforce outcomes. Informed by data, research, and stakeholder input, this report and the framework it recommends will place more students on educational pathways that unlock workforce opportunities and lives of economic independence.

This framework is about more than degrees and credentials — it's about shaping lives, building stronger communities, and securing a prosperous future for our state.

K
KIRKWOOD
HIGH SCHOOL

A Credential Impact Framework Empowers Stakeholders to Take Action

A credential impact framework is a connection point between what we know today about students' education-to-career success and what we could do to map out a more cohesive journey leading students to impact credentials. Tennessee has a robust education-to-career ecosystem that supports students in acquiring skills and knowledge, accessing credential and degree opportunities, and entering the workforce. Policymakers, K-12 and postsecondary educators, student support organizations, and industry partners play critical roles in a student's journey from K-12 to career. Each of these stakeholders is taking important steps to improve career readiness for students and strengthen the education-to-work pipeline. With a credential impact framework, stakeholders — from K-12, postsecondary, and the workforce — can better leverage existing data to provide students a clearer pathway to success. Working in tandem, these stakeholders can advance economic prosperity for all Tennesseans.

With a credential impact framework, stakeholders — from K-12, postsecondary, and the workforce — can better leverage existing data to provide students a clearer pathway to success.

A Framework Is an Alignment Tool for Various Stakeholders Expanding Student Opportunity

POSTSECONDARY EDUCATORS can further design and modify programs of study to align with career opportunities.

POLICYMAKERS can use a measure of education-to-career success that applies to cross-sector alignment in support of education preparation, labor force participation, and economic development.

INDUSTRY PARTNERS can play a more active role in the production of impact credentials and degrees by partnering even more with education stakeholders and offering career-connected learning partnerships. Working together, industry and education can support student achievement and talent development. Industry partners can also have greater confidence to invest in and expand in Tennessee, furthering the state's economic development.

STUDENT SUPPORT ORGANIZATIONS can use the framework as a tool to advise students in navigating over 1 million unique credential and degree options nationwide to select a pathway that aligns with their career goals and sets them on the path to a high-wage, high-demand career.

K-12 EDUCATORS can reorient student learning and pathways around workforce-aligned programs of study in high school.

POLICYMAKERS

[A framework could] be the spearhead of our next 10-year higher education goal. The Drive to 55 served as a rallying cry to get all of the higher education enterprise focused on centering student access and success in the pursuit of attainment. The next goal will focus on ensuring Tennesseans thrive with their earned credentials.

– Tennessee Higher Education Leader

K-12 EDUCATORS

We look forward to designing our school from the ground up with the quality framework guiding our work!

– Tennessee K-12 School Leader

STUDENT SUPPORT ORGANIZATIONS

In student advising, our aim is to support students in making important choices that align to their career interests and goals. A credential impact framework would serve as a useful yardstick to help students understand and evaluate the economic outcomes for the credentials and degrees they are considering as they pursue the lives they hope to build.

– Student Support Organization Leader

INDUSTRY PARTNERS

[A framework is useful for] business attraction. Incoming businesses like to be assured we have an ecosystem that will provide for talent needs … and for workforce projections.

– Chamber of Commerce Leader

POSTSECONDARY EDUCATORS

[A framework could be used] to provide a roadmap to make as many of our credentials as high quality as possible; to identify and address what qualities hold current credentials back from being high quality; and to identify barriers that would prevent students from accessing provided quality credentials.

– Tennessee Higher Education Leader

STATE SPOTLIGHTS: HOW OTHER STATES HAVE MEASURED CREDENTIAL OUTCOMES TO ALIGN EDUCATION AND CAREER

Many other states have also taken steps to understand the impact of the degrees and credentials students earn in order to strengthen their education-to-career pipelines. While Tennessee would be the first state to develop a multiple-measure framework that defines impact for industry credentials and traditional degrees, several states serve as important models and offer best practices in creating a framework that advances workforce opportunity for students.

- **North Carolina: Workforce Credentials**

  This statewide collaborative initiative is focused on identifying the economic opportunity of industry-valued, nondegree credentials in the state. Managed by a cross-sector council that includes the governor's office, a K-12 state agency, higher education systems, workforce development boards, and a nonprofit partner, this initiative categorizes nondegree credentials by their level of alignment to earnings, short-term job availability, and job growth for aligned occupations. These credentials are grouped into tiers — Foundational, Essential, Career, and Advanced — that signal how well a credential is aligned to job opportunities in North Carolina.[9]

- **Texas: Credentials of Value Framework**

  Developed to advance the state's higher education strategic plan, Building a Talent Strong Texas, the Credentials of Value Framework includes a goal of increasing the number of students earning credentials and degrees that lead to lasting, successful career opportunities. This definition, implemented by the Texas Higher Education Coordinating Board, determines credential impact by examining whether a credential-holder earns enough within 10 years of graduation to pay for the cost of their education and surpass the earnings of a typical high school graduate. A public dashboard reports whether credentials meet these criteria, using a "yes or no" approach to designate whether the credential of value threshold has been met.[10]

- **Florida: Master Credentials List**

  In Florida, the Master Credentials List is a comprehensive list of state-approved degree and nondegree credentials of quality that prepare students in the state for job opportunities. A cross-sector council of representatives from the governor's office, public and private higher education systems, K-12 education, and local workforce development agencies use a framework of quality to designate whether a credential or degree is placed on the list. Criteria include earnings, demand, and credential sequencing (stackability).[11]

Measure What Matters: Defining Credential Impact

Developing a framework to understand credential and degree impact begins with defining what a successful career looks like. To establish a strong definition of impact credentials, **SCORE engaged for nearly a year in a learning and alignment journey with K-12, postsecondary, industry, student support organizations, and government leaders from across the state.** Together we explored research and analyzed data to develop a framework.

As an initial step, SCORE partnered with the University of Tennessee's Boyd Center for Business and Economic Research to identify potential Tennessee metrics that could measure credential impact. Those metrics include:

- Earnings, debt, and return on investment
- Minimum income
- Job outlook
- Sustainability, or long-term job outlook
- Regional relevance
- Workforce turnover
- Portability
- Stackability

One important feature these measures have in common is that available data already exist and can be universally applied across the credentials and degrees students earn.[12] With this data, these measures can provide insights into whether a credential or degree program sets students on a pathway to success in the workforce. The expected earnings associated with a credential, for example, ensure that students can reach economic independence and a return-on-investment for the cost of the credential. Minimum income examines whether jobs connected to a credential lead to an income sufficient to meet basic standards of living. Job outlook — both short-term opportunities and long-term job growth — reveal how much a credential is aligned to job opportunities today and in the future. Workforce turnover signals the likelihood a student may switch jobs in the workforce, while stackability and portability reveal how flexible a credential program is to transfer into other credentials or degrees or to translate across different industries. Finally, job opportunities and wage levels vary across communities, so regional relevance provides a data perspective into how these measures may look at a local level compared to the state as a whole.

While these measures have existing data availability, **limitations prevent their use in defining the impact of a credential:**

- **Existing data sources are most available for earnings and job outlook measures, while less available for others.** Earnings and job outlook provide important perspective into credential quality, and Tennessee has existing data measures to understand a student's earnings in the workforce, as well as job openings and job growth associated with credentials and degrees in Tennessee. However, other measures — such as stackability or workforce turnover — have little to no existing data available to use right away in measuring quality.
- **There are limited data available on short-term education opportunities, whether those are offered by academic institutions or nonacademic providers.** These include short-term nondegree credentials, apprenticeships, and occupational licensing, among others. Considering the huge uptick in the number of students earning short-term credentials, it is important to assess the career outcomes of these credentials.
- **Tennessee's statewide longitudinal data system links earnings to credentials and degrees when students enter the workforce but does not link these earnings to the specific jobs students obtain.** As a result, we have limited knowledge of how well credentials prepare students for employment prospects and success in the workforce. Information about credentials and education and workforce outcomes are most impactful at the student-level, so this data should be leveraged in a framework as much as possible.

SCORE and stakeholders also discussed other measures that may shed light on a credential's impact potential:

- **Income mobility** was raised as a way to understand not only the earnings associated with a credential but how much the credential propels a student up the income ladder.
- **Graduate degree pathways** may provide additional insight into the quality of bachelor's degree programs, as many students take graduate coursework after earning a bachelor's that leads to high-wage, high-demand job opportunities.
- A credential or degree also can be measured by **societal value**, recognizing that many careers are foundational for society — such as teaching or child care workers — yet may not have the highest wages or job demand opportunities.
- Additionally, the **skills and competencies** that students earn within programs are important for the employers hiring them.

Three Key Impact Measures: Earnings, Job Outlook, and Stackability

Through an analysis of existing data availability across these measures and a consideration for which measures provide the most comprehensive understanding of credential quality for students entering the workforce, SCORE recommends three key impact measures to help orient education pathways around student success: **Earnings, job outlook, and stackability.**

Earnings as a quality measure ensures a student's training equips them to potentially earn higher wages that meet costs of living while receiving a return on their investment in the credential.

How much a student earns upon entering the workforce is an important indicator to include in this framework. Significant research and data show that individuals who earn a credential beyond a high school diploma earn more in the workforce and that the specific field of study impacts the credential's economic returns as well. Using earnings as a measure of success can put students on career pathways that lead to higher wages and ensure a return on investment for the time and cost of the credential.[13]

Earnings are an essential measure to include to understand the impact of credentials and degrees. We need to ensure that we set students on a path to career opportunities with thriving wages that enable them to reach financial stability and economic independence.

– Student Support Organization Leader

Job outlook is an impact measure that ensures a credential or degree is aligned to the skills and knowledge required for job opportunities today and far into the future.

The job outlook associated with a particular credential or degree is also an important measure to include in a framework that defines impact. Students should be equipped with the skills and knowledge needed for job opportunities today and far into the future as an individual's career lasts an average of 40 years. Additionally, Tennessee has strong data available to measure job availability and growth. Impact credentials and degrees should be aligned to jobs with future job growth and short-term job availability.

For businesses, [impact credentials] are key to addressing skills gaps and creating opportunities for individuals. In a rapidly changing economy, credentials that are responsive to long-term job growth ensure both short-term and sustainable economic prosperity. Focusing on earnings, job outlook, and credential stackability makes the credential impact framework a dynamic, future-focused tool.

– Chamber of Commerce Leader

Stackability highlights impact by ensuring that any nondegree credential or two-year degree is stackable, or transferable, into an adjacent or higher credential or degree that yields greater economic returns for students.

Credential stackability refers to a credential's potential to stack with additional, adjacent or higher credentials or degrees that further a student's skills and knowledge and offer greater career opportunities. Stackability is an important measure of the framework because it provides individuals with a pathway to step in and out of education to receive skills and training to meet workforce needs and contribute to the labor force. Specifically, this measure captures the extent to which short-term credentials or sub-baccalaureate degrees can seamlessly transfer to shorter-term options or into higher degree programs on career pathways that lead to economic independence.

Today, Tennessee does not have a standard data-supported definition of credential stackability. A more rigorous measure would enable Tennessee to understand which stackable pathways and credential combinations can lead students to high-wage, high-demand career opportunities that enable economic mobility.

> *Credential stackability is a crucial component within a framework, as it ensures that students can accumulate and transfer qualifications seamlessly along their educational and career pathways. By enabling the stacking of credentials, robust opportunities are created for students to build on their existing knowledge and skills, and ultimately lead to higher credentials that unlock high-wage, high-demand, and high-skill opportunities.*
>
> – State K-12 Leader

WHAT ABOUT A CREDENTIAL'S RETURN ON INVESTMENT (ROI)?

- Students deserve to know whether the credential they pursue will provide them a return on investment. Challenges to clearly defining ROI and using data to model how a definition would impact Tennessee's credential and degree outcomes are future opportunities to explore.
- A return on investment for a postsecondary credential measures the extent to which a student earns sufficient wages in the workforce that exceed the cost of receiving the credential. This measure could also evaluate whether state investments — such as financial aid and outcomes-based funding — yield a return in equipping Tennesseans for workforce opportunities.
- Other states have explored ROI in measuring credential impact. Texas evaluates whether students earn wages up to 10 years after graduation that surpass the cost of receiving a credential or earn more than a worker with just a high school diploma.[14] North Carolina's state legislature commissioned a study on the ROI for nearly every program offered by the University of North Carolina System.[15]

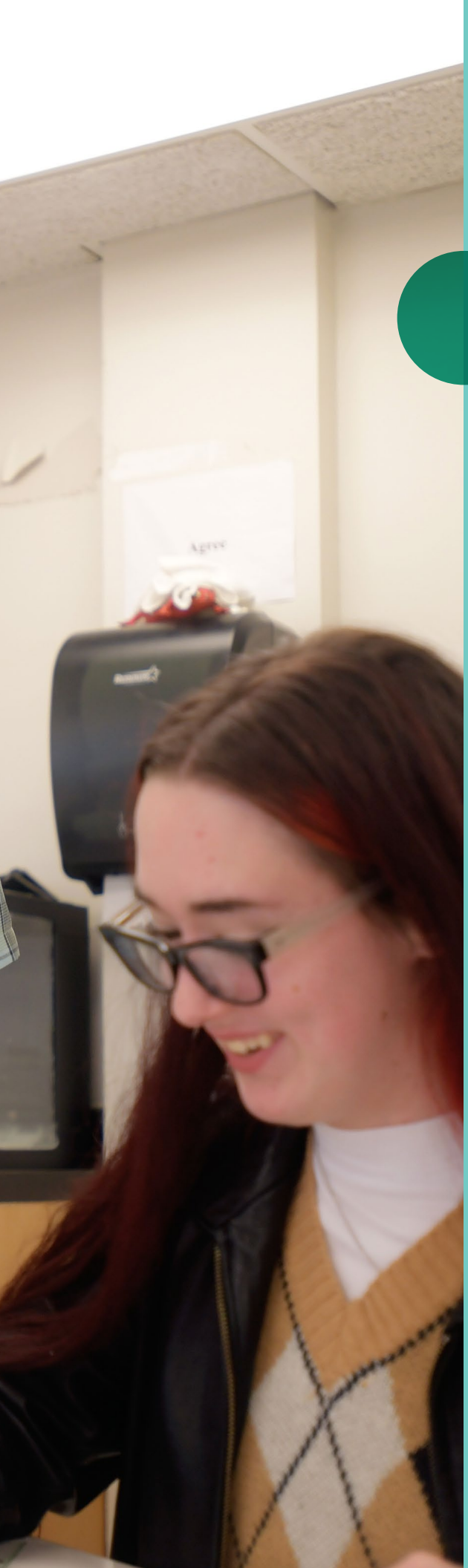
WHAT ABOUT A CREDENTIAL'S REGIONAL AND LOCAL RELEVANCE?

- In addition to statewide job outlook, a credential's regional and local demand is also a measure to consider for credential impact. This measure explores whether a credential is in higher or lower demand by the local workforce compared to the state.
- Florida has explored a local demand measure in its Framework of Quality, requiring documentation from local employers that a specific credential is needed and that available data support the credential's connection to local job postings.
- Similar to ROI, data definition and quality challenges prevent this measure from being used today to model impact credentials and degrees. However, this measure should be explored in the future to strengthen job outlook to be inclusive of state and regional needs.

WHAT WE MEASURE MATTERS

To ensure we advance a strong vision to drive alignment between education and career, we must identify the most concrete measures that signal what we hope to be true for all students after postsecondary education and career training. By applying earnings, job outlook, and stackability to credentials and degrees in a framework, Tennessee can prepare students for greater career success, increase labor force participation, and foster continued economic prosperity across the state. With better alignment among K-12, postsecondary, and employers, we can create an education-to-career system that is informed and works for our students and for our state.

PERIODIC TABLE
OF THE EL
He
Ne
Ar
F
H
Li
Be
Na
Mg
K
Ca
Sc
Ti
V
Cr
Mn
Rb
Sr
Y
Zr
Nb
Mo
Ba
La
Hf
Ta
W
Ac
Ce
Pr
Nd
Th
Pa
U



Envisioning a Credential Impact Framework

SCORE recommends Tennessee adopt a framework for measuring the impact of credentials and degrees on earnings and job outlook. Additionally, a framework would consider degrees and credentials that alone do not result in high earnings and job outlook but can be stacked toward a credential that does.

SCORE led a working group of stakeholders who aligned on the following framework to understand the impact of credentials:

Credential Impact Framework

	★	★★	★★★
ANNUAL EARNINGS	**$43,196** Minimum median earnings after five years (minimum required to reach economic independence)	**$60,474** Minimum earnings after five years	**$77,753** Minimum earnings after five years
JOB OUTLOOK	**0.8%** Aligned job demand grows at least yearly from 2020-30	**1.2%** Aligned job demand grows at least yearly from 2020-30	**1.6%** Aligned job demand grows at least the state average yearly from 2020-30
CREDENTIAL STACKABILITY	If credential is stackable into a higher credential that meets earnings and job growth criteria, it is a **Conditional 1-Star Credential**		

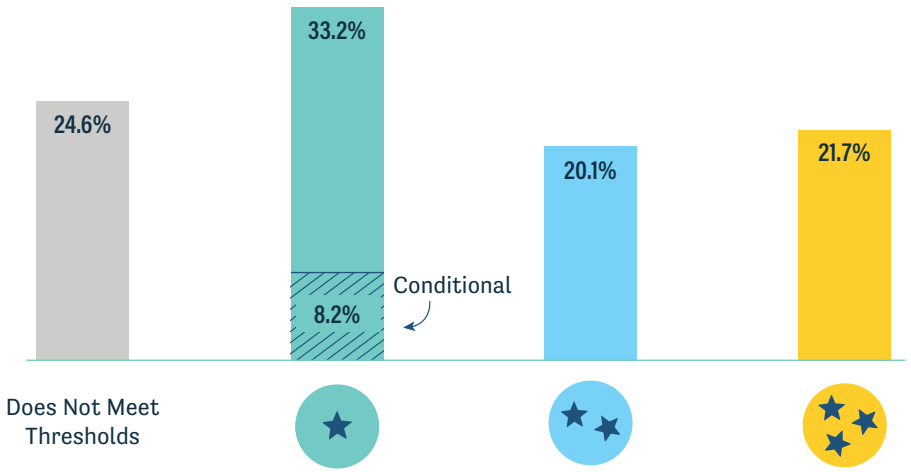
This framework upholds a clear understanding of alignment between education and career using the multiple measures of earnings, job outlook, and credential stackability. These measures capture important aspects of the economic impact that credential and degree programs provide, signaling the following outcomes that we hope to be true for all Tennesseans:

- **A student's earnings after completing a credential are sufficient to meet the costs of living and earn a return on their investment.** To be included in this framework, a credential's median earnings measured five years after completion must be at least at or above the living wage for a single adult in Tennessee. Using data on common living expenses, the Massachusetts Institute of Technology places the cost of living in Tennessee at $43,196 in 2024.[16] For a credential to be designated as 2-Star or 3-Star, the earnings must meet, respectively, 140% and 180% of the cost of living.
- **A credential is aligned to future job opportunities.** In addition to a credential's associated earnings, alignment to current and future job opportunities in Tennessee is a critical measure to assess impact. This framework measures long-term job outlook using Tennessee's average projected long-term job growth. Applied to a credential or degree, this measure evaluates how well a credential is aligned to jobs that are growing at a steady rate over at least the next 10 years. Between 2020 and 2030, the projected annual job growth rate is 1.6%. This threshold sets the framework's highest tier of job outlook in Tennessee, with 1-Star and 2-Star designations representing credential alignment to job opportunities with 50% (1-Star) or 75% (2-Star) of the average job growth rate. Importantly, this framework's job outlook measure does not take into consideration the regional and local nature of job demand or shorter-term job availability. Job needs vary across the state's diverse communities, and it will be important for a framework to include regional relevance of credential and degree programs in Tennessee. Alignment to short-term job availability should be explored as well.
- **If a credential doesn't immediately align with a high-wage, high-demand job, it provides a pathway toward a credential that does.** The impact of industry, shorter-term, and sub-baccalaureate credentials and degrees is not fully captured by looking just at immediate career outcomes. Stackability measures how impactful a credential is as a pathway into a higher credential. If a credential does not meet at least the 1-Star threshold but stacks into a credential that does, the credential is a 1-Star Conditional credential. This framework recommends including a stackability definition to capture the ways that students can transfer and stack credentials along a career pathway — both horizontally and progressively — to receive postsecondary and workforce training needed to succeed in the workforce. Importantly, Tennessee lacks a rigorous data definition to use in measuring and evaluating credential impact based on stackability. SCORE recommends identifying stackable pathways as higher credentials and degrees in the same instructional program as a foundational definition with the hope of a stronger, more accurate definition being developed among stakeholders in the future.

How Does This Framework Impact Tennessee Credentials?

	Does Not Meet Thresholds	★	★★	★★★
CERTIFICATE/ DIPLOMA	15	23	3	0
ASSOCIATE	9	15	4	0
BACHELOR'S	36	43	42	53
TOTAL	60	81	49	53

Impact Credential Distribution



This credential impact framework will uphold many of the state's credential and degree programs as supporting students to succeed from education to career. Additionally, the framework's clear data definitions will serve as a compass for institutions and education providers to guide education programming, advising practices, and resources toward credentials and pathways that lead to high-wage, high-demand career opportunities for students.

Next Steps to Advance a Framework in Tennessee

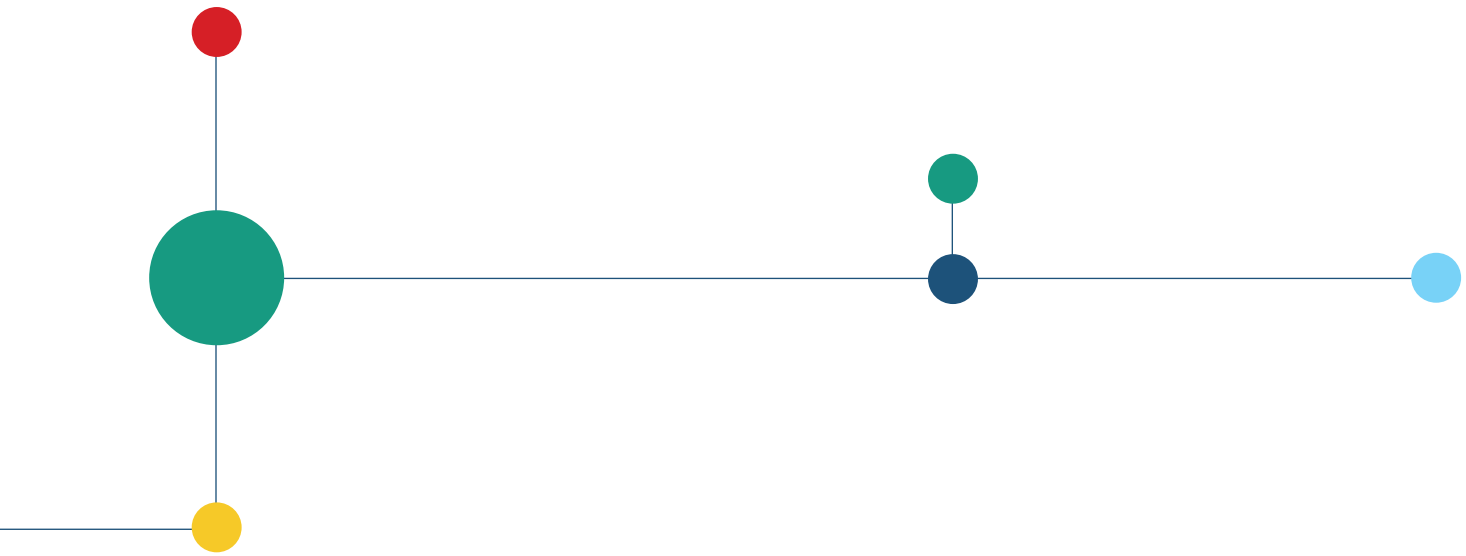
SCORE believes that a credential impact framework is key to supporting students and state economic development. Through this framework, students will be set on education pathways that culminate in an impact credential or degree, paving the way for higher wages and career opportunities today and in the future. This common definition of student success should be applied across Tennessee's existing state policies, resources, and initiatives so that more students can earn impact credentials and degrees to contribute to the state's economic development.

With this framework, education pathways can be designed and reoriented around impact credentials, ensuring every Tennessean has the opportunity to earn an impact credential before entering the workforce.

State resources — whether through financial aid or a funding formula — can be tied to this framework definition. New state policies or existing state initiatives can be aligned to support a statewide ecosystem where all students are guided toward credentials that lead to greater career opportunities in Tennessee.

SCORE has identified several next steps to align education and workforce systems — including the adoption of state policy and enhancements to key data systems — to advance a credential impact framework statewide:

1. Embed the credential impact framework in Tennessee education and workforce efforts.
2. Enhance Tennessee's data system and processes.
3. Set a new, statewide goal to increase the number of Tennesseans earning impact credentials and degrees.
4. Leverage state resources to incentivize impact credential completion.
5. Align existing statewide impact measures for credentials to the framework.
6. Build high school pathways that prepare students to earn impact credentials.
7. Ensure postsecondary and workforce training programs are preparing students for careers that enable economic independence.
8. Apply the framework in advising practices in k-12, postsecondary, and student support organizations.
9. Incentivize industry partners to leverage the framework as a talent development tool.



1 EMBED THE CREDENTIAL IMPACT FRAMEWORK IN TENNESSEE EDUCATION AND WORKFORCE EFFORTS

The framework sets a strong standard for what we hope to be true for students from education to career. At a minimum, the framework should include:

- Three primary measures of earnings, job outlook, and credential stackability
- A clear owner, or owners, who will collaborate to implement the framework by:
  - Conducting important data analysis to determine credential alignment to the framework's three primary measures
  - Updating data on a regular basis to keep pace with changes in inflation, job prospects, and emerging pathways
  - Publishing framework designation regularly
  - Convening stakeholders across K-12, postsecondary, and the workforce to provide feedback and input on the framework measures, designation process, and implementation
  - Revising policies and initiatives to align and incentivize impact credential completion

A credential impact framework can serve as an "evergreen" tool to advance student opportunity for students in Tennessee in the years to come.

2 ENHANCE TENNESSEE'S DATA SYSTEM AND PROCESSES TO IMPROVE THE FRAMEWORK

The framework will require critical data enhancements in the state's administrative data system to allow for future improvements that better measure and understand credential and degree outcomes. They include:

- **Collect learner-level occupation and job title information** from employers to include in the state's longitudinal data system. This information, linked to earnings, will provide a clearer picture of students' post-graduate success by providing information on the jobs they obtain.
- **Develop a rigorous definition of credential stackability** that measures pathways to credentials that yield higher earnings and job opportunities for students.
- **Require collection of nondegree industry credential information** to better understand the economic impact of credentials offered by third-party nonacademic providers, as well as noncredit programs at the state's public institutions of higher education.

Additionally, this framework should be flexible over time as data enhancements strengthen and improve how we define and measure earnings, job outlook, and stackability. Future revisions could include exploring how a return on investment can be further calculated with an earnings measure, as well as how job outlook incorporates short-term job availability and regional and local job needs.

3 SET A NEW, STATEWIDE GOAL TO INCREASE THE NUMBER OF TENNESSEANS EARNING IMPACT CREDENTIALS AND DEGREES

Tennessee previously set a goal to increase the number of Tennesseans with a postsecondary credential to 55% by 2025 to meet the state's projected needs for a skilled workforce.[17] The state's attainment rate has increased significantly from 33% in 2013 to 47.9% in 2022. With 2025 approaching, the state can develop and recenter on a new statewide vision for K-12, postsecondary, and workforce success.

4 LEVERAGE STATE RESOURCES TO INCENTIVIZE COMPLETION OF IMPACT CREDENTIALS

Tennessee was the first state to fund colleges and universities based on student outcomes. Created through landmark legislation in 2010, the state's outcomes-based funding formula rewards community colleges and universities based on how these institutions grow on key metrics year to year. This funding formula will be reviewed in 2025, providing a window to align it with the measures in the credential impact framework.

- Tennessee should **revise the state's outcomes-based funding formula with an increased focus on rewarding institutions of higher education for students earning credentials and degrees that enable economic independence.**

Tennessee has a robust financial aid system that supports students to access postsecondary education statewide. These scholarships support students by making postsecondary education more affordable, yet more can be done to leverage scholarships to ensure that students persist and complete an impact credential.

- Moving forward, **Tennessee should explore how to apply a credential impact framework across new or existing financial aid opportunities.**

5 ALIGN EXISTING STATEWIDE CREDENTIAL IMPACT MEASURES TO THE FRAMEWORK

Across K-12, postsecondary education, and workforce sectors in Tennessee, many existing measures evaluate the economic impact of certain credentials, degrees, and education providers statewide. The Tennessee Department of Education's Promoted Industry Credentials list, the Tennessee Investment in Student Achievement (TISA)'s tiered CTE Direct Allocation Funding, and Tennessee's Quality Nondegree Credentials definition all evaluate quality using related but slightly different measures. Moving forward:

- **The framework's definition of impact for credentials and degrees should be applied across all of Tennessee's credential and degree opportunities to ensure a consistent, aligned measure for quality and impact.**

6 BUILD HIGH SCHOOL PATHWAYS THAT PREPARE STUDENTS TO EARN IMPACT CREDENTIALS

In K-12 education, students can participate in various early college and career experiences prior to high school graduation, including dual enrollment, career and technical education (CTE), and many other early postsecondary opportunities (EPSOs).[18]

- **Early college and career experiences in high school should support students in earning impact credentials.** Building pathways that allow students to earn impact credentials requires strong partnerships, trained staff, intentional schedules, and access to high-quality learning experiences. Tennessee should assess alignment of all early college and career experiences and offerings, across dual enrollment, work-based learning, and CTE. Prioritizing opportunities aligned to the framework will ensure the state keeps a laser focus on quality and that students have access to successful career pathways.

7 ENSURE POSTSECONDARY AND WORKFORCE TRAINING PROGRAMS PREPARE STUDENTS FOR CAREERS THAT ENABLE ECONOMIC INDEPENDENCE

Tennessee has several mechanisms in place to ensure the quality of academic offerings. The Tennessee Higher Education Commission (THEC) considers occupational demand in both academic program approval processes through the letter of notification, external reviewer site visit, and community letters of support.[19]

- **The credentials framework should be considered for the development, approval, and modification of postsecondary academic programs.**

8 APPLY THE FRAMEWORK TO ADVISING PRACTICES ACROSS K-12, POSTSECONDARY, AND STUDENT SUPPORT ORGANIZATIONS

Important support organizations in Tennessee advise students as they consider college and career pathways. Families, teachers, and high school and postsecondary counselors play an integral role in helping students make decisions about their future.

- **College and career advising practices should be informed by the framework** to ensure students receive the best guidance when considering pathways to pursue. The state — or the state's advising support organizations — should develop materials specifically for families and training for advisors about which credential and degree opportunities lead to careers that enable economic independence.

9 INCENTIVIZE INDUSTRY PARTNERS TO LEVERAGE THE FRAMEWORK AS A TALENT DEVELOPMENT TOOL

Many industry leaders in Tennessee are proactively partnering with K-12 and postsecondary education to develop a strong talent pipeline to meet employment needs.[20] Additionally, the state's economy continues to grow as businesses flock to or expand in Tennessee. A credential impact framework is a useful tool for ensuring that existing and new employer-education partnerships are centered on supporting students to earn credentials that align with employer demand and set students up for success. To develop a talent pipeline and meet individual and workforce needs:

- **The state should develop a grant fund and incentives to spark more education-employer partnerships that lead to a quality credential or degree for students.**

Conclusion

Tennessee has long recognized education as the foundation for creating new possibilities and driving statewide progress. To sustain this momentum, we must create a future where educators, advisors, and policymakers have the tools to guide students toward pathways that allow them to succeed in the state's ever-evolving economy. In that future, every student will more clearly see how their education leads to a successful career and economic independence, while employers will have the skilled workforce they need.

By advancing a credential impact framework in Tennessee, we can ensure more students are able to pursue an education that unlocks opportunities and paves the way to success and prosperity. This effort is about more than degrees and credentials — it's about opening doors for students and securing a brighter future for our state.

References

[1]Carnevale, Anthony, Ban Cheah, and Emma Wenzinger. *The College Payoff: More Education Doesn't Always Mean More Earnings.* Georgetown University Center on Education and the Workforce. (October 2021); Carnevale, Anthony, Nicole Smith, Martin Van Der Werf, and Michael C. Quinn. *After Everything: Projections of Jobs, Education, and Training Requirements through 2031*. Georgetown University Center for Education and the Workforce. (March 2023).

[2]Tennessee Public Chapter No. 3. (2010).; Tennessee Public Chapter No. 900. (2014). Tennessee Public Chapter No. 203. (2019).; Tennessee Public Chapter No. 397 (2021).; Tennessee Public Chapter No. 966. (2022).

[3]Carnevale, Anthony, Ban Cheah, and Emma Wenzinger. *The College Payoff: More Education Doesn't Always Mean More Earnings.* Georgetown University Center on Education and the Workforce. (October 2021).; U.S. Census Bureau. American Community Survey 2018-2022. Labor force participation rate for men and women ages 20-64 table S2301. (2024).; Tennessee Department of Labor & Workforce Development. Labor Force Participation Analysis. (June 2024).

[4]SCORE Survey. *The Value of Postsecondary Education in Tennessee.* SCORE. December 2022.

[5]Burning Glass Institute and Strada Education Foundation. *Talent Disrupted: College Graduates, Underemployment, and the Way Forward.* (February 2024).

[6]Sanchez, Olivia and Meredith Kolodner. Why white students are 250% more likely to graduate than Black students at public universities. The Hechinger Report. (October 2021)..

[7]Carruthers, Celeste, Donald Bruce, and Michael Kofoed. *Identifying Quality Credentials Part 1: Available Resources and Limitations.* Boyd Center for Business & Economic Research at the University of Tennessee, Knoxville. (2024)

[8]Credential Engine. *Counting U.S. Postsecondary and Secondary Credentials.* (2022).

[9]MyFuture NC. North Carolina Workforce Credentials: A Cross-sector effort to identify and promote industry-valued credentials. North Carolina Workforce Credentials Defining and Counting Non-degree Workforce Credentials for North Carolina. (2023)

[10]Texas Higher Education Coordinating Board. "Ensuring Students Attain Credentials of Value." (May 2023).

[11]Florida Credentials Review Committee. "Framework of Quality." Career Source Florida (Dec. 2022)

[12]Carruthers, Celeste, Donald Bruce, and Michael Kofoed. Identifying Quality Credentials Part 1: Available Resources and Limitations. Boyd Center for Business & Economic Research at the University of Tennessee, Knoxville. (2024)

[13]Strohl, Jeff, Artem Gulish, and Cathrine Morris. *The Future of Good Jobs: Projections through 2031.* Georgetown University Center on Education and the Workforce. (2024).

[14]Ibid.

[15]The University of North Carolina System. Meeting Of The Board Of Governors. Committee on Educational Planning, Policies and Programs Committee on Strategic Initiatives. (April 2024).

[16]Ibid.

[17]Tennessee Office of the Governor. "Haslam Shifts 'Drive to 55' Initiative into High Gear." (September 4, 2013).

[18]Tennessee Department of Education. Early Postsecondary Opportunities. (2024); Tennessee Department of Education. Career Clusters. (2023); Tennessee Department of Education. Work-based Learning. (2024).

[19]Tennessee Higher Education Commission. Academic Policies: New Academic Programs: Approval Process. A.10. (2024); Tennessee Higher Education Commission. Academic Policies. Expedited Academic Programs: Approval Process A 1.6. (2024); Tennessee Higher Education Commission. Letter of Notification (LON) Checklist Policy A1.0 New Academic Programs Approval Process. (2024); Tennessee Higher Education Commission. Expedited Letter of Notification (ELON) Checklist Policy A1.6 – Expedited Academic Programs: Approval Process. (2024); Tennessee Higher Education Commission. Virtual Site Visit Guidelines April 16, 2020. (2020).

[20]SCORE Report. *Today's Students Tomorrow's Talent: A Guide to Education-Employer Models.* Tennessee SCORE. (2023).

View SCORE's digital resources:
tnscore.org/resources

Acknowledgments

Thank you to the many state and national partners who have given of their time and expertise to help inform SCORE's recommendation for a framework for credential impact in Tennessee. We are especially grateful to the members of our working group who learned alongside us for nearly a year.

SCORE

The State Collaborative on Reforming Education (SCORE) is an independent, nonprofit, and nonpartisan advocacy organization. Our mission is to catalyze transformative change in Tennessee education so that all students can achieve success. Striving to be a durable partner and trusted advisor on Tennessee education, SCORE is focused on advancing change for students from kindergarten to career through policy and practice – and taking it to scale.

tnscore.org