Most states now have a statewide credential attainment goal, which sets targets for the number of residents with a postsecondary credential. These goals can help states to increase the educational levels of the adult population and address the workforce needs of the state. Unfortunately, many states may lack the capability to measure progress toward their attainment goal, and to produce an unduplicated count of the total number of credentials. While states can typically measure degree attainment, many cannot measure the attainment of non-degree credentials such as certificates, industry certifications, licenses, and apprenticeship certificates.

This guide provides states with step-by-step instructions for measuring non-degree credentials using student-level administrative data. It also suggests issues states can think about as they begin to measure non-degree credential attainment.
STEP ONE: Select which credential types will be included within the attainment goal

Once a state has established its attainment goal, it should determine what types of non-degree credentials of value should be counted towards the goal. To do this, states should convene relevant stakeholders to discuss which types of non-degree credentials should be included. If a comprehensive approach is initially too ambitious, a state may choose to count only some types of non-degree credentials. Also, to reduce the burden of data collection and still align with workforce demand, states may consider counting attainment of non-degree credentials in only key industry sectors.

Common types of non-degree credentials include:
- Industry certifications
- Badges
- Certificates resulting from for-credit programs
- Certificates resulting from non-credit programs
- Licenses
- Registered apprenticeship certificates
- Non-registered apprenticeship certificates

Relevant stakeholders may include representatives of:
- The state higher education agency
- The state longitudinal data system (SLDS)
- The state education agency
- The state workforce agency
- The state workforce development board
- The state career and technical education agency
- The state apprenticeship agency
- The state licensing agencies
- The community college system
- Private non-profit colleges
- For-profit colleges
- Employer associations

STEP TWO: Select an agency to track total credential attainment

Once a state has identified which types of non-degree credentials it will include within its educational attainment goal, the state should select a state agency to track total credential attainment. To select the agency, the state may consider such factors as which agency has:
- the most relevant authority under current statutes;
- the largest collection of credential data;
- the greatest technical capacity to collect additional data; and
- the strongest stakeholder relationships.

In many states, the agency that will meet the most of these criteria is the state postsecondary education agency or the SLDS.

STEP THREE: Landscaping

The agency responsible for tracking total credential attainment should identify who awards each type of credential within their state and who maintains awards data. To do this, the agency will need to hold discussions with relevant stakeholders, including those who award non-degree credentials. State agencies should ask entities awarding non-degree credentials what data they collect, and whether they share that data with the state. Specific questions the state should ask include:
- Does your entity collect individual-level data?
- If so, what data elements does your entity collect?
- Can we see a copy of your file layout?
- Does your entity send any data to the state?
- If so, which state agency or agencies do you send data to?
- Do you have strong or limited capacity to report data to the state?
- If you have limited capacity, what problems do you anticipate?

These questions will help the state agency responsible for measuring credential attainment better understand if the entity collects common information such as name, social security number, and demographic information. It will also help the state better understand if any data is already sent to a state agency, and if not, whether the entity has the capacity to do so. Some entities may only collect limited data, store it in a spreadsheet, and have limited staff to report the data to the state. Other entities may collect comprehensive data and have multiple staff members who utilize complex student information systems. Better understanding of reporting challenges may enable the state to assist those entities with limited reporting capacity.

STEP FOUR: Identify data gaps

After landscaping, the state agency responsible for calculating total credential attainment should determine what additional data it will need to measure progress towards the attainment goal. Many states have similar data gaps. Common gaps include data about industry certifications, certificates from non-credit programs, and both registered and non-registered apprenticeship certificates. Furthermore, although states award licenses, licensing data may be held in a number of state agencies, and not compiled into one location. This makes it difficult to see how licenses fit into a state’s education and training pipelines.

States may also have gaps in the information they have from private schools and community-based organizations. Although states usually license private for-profit institutions, and private institutions may be eligible for state financial aid or other state funding, relatively few states mandate that private schools share student-level data in exchange for authorization or aid. States can get data from some of these entities through the Eligible Training Provider List (ETPL) requirements. These data
submission requirements help determine which entities can receive Workforce Innovation and Opportunity Act (WIOA) funds. However, not all private schools and community-based organizations participate in the ETPL.

Finally, states may have some data elements about relevant credentials, but not all the data elements needed to measure attainment and determine outcomes. Missing data may include social security numbers and demographic information. Without this information, it can be challenging to match credentials information with wage outcomes, or to determine if the programs leading to credentials are serving all participants equally well.

**STEP FIVE: Create and execute a plan**

Once the state agency responsible for measuring credential attainment has determined which data it needs, it should create and execute a plan to get that data. Some states may wish to undertake a voluntary strategy whereby they request that entities voluntarily submit data, while other states may wish to enact legislation or regulations to require data submission.

**Voluntary submission:** States who wish to utilize a voluntary strategy should first convene representatives of the institutions and other entities who hold the data needed to measure attainment. During this convening, the state agency responsible for measuring credential attainment can explain why these entities should provide data to the state and address common concerns these stakeholders may have. This convening should not focus exclusively on the benefits of data collection to the state, such as calculating progress towards the state’s attainment goal, but rather on the benefits to those institutions or other entities. One common benefit is the receipt of outcomes data from the state, which will enable institutional research and programmatic improvement.

States should also prepare to address common concerns that institutions and other entities may have about sharing data. Concerns may include the publication of negative information, that data privacy and security could be compromised, or that the entities lack the capacity to submit data to the state. States can address some of these fears by providing an easy-to-understand summary of their privacy and security practices, offering to provide funding and technical assistance to entities with limited resources, or offering to allow institutions to review information that will be made available to the public in advance of its release.

Once entities volunteer to submit data, states will need to execute a memorandum of understanding (MOU) governing how the data will be shared and used. States should create MOU templates that can be adjusted as necessary for each type of credential provider. Creating a standardized form will save states time and money.

**Mandatory submission:** States who wish to require data submission may pass legislation or enact regulations that require given entities to submit certain data to a state agency. The statute or regulations should establish particular timeframes for data submission. States may wish to tie requirements to submit data to the provision of state aid, or the entities’ ability to maintain a license to operate in the state. Minnesota has a law requiring the submission of data in order to receive state funding, while Washington state has a regulation requiring reporting in order to operate as a proprietary school in the state.

The state agency responsible for calculating attainment should work with entities holding credentials data to identify any obstacles that inhibit data sharing with the state, and what, if any, changes could be made to enable data sharing. Obstacles might include state laws, policies, and practices that prevent entities from submitting data. For example, some states have laws precluding institutions from collecting social security numbers.

States should also create standardized submission forms and, if they have not already, a strong information system for data sharing. This will help to ensure that the state has similar and usable data from all entities awarding credentials.

**Registered apprenticeship data:** States should seek registered apprenticeship data from the entity that oversees their registered apprenticeship programs. Approximately half of states’ registered apprenticeship programs are overseen by state apprenticeship agencies, while the rest are overseen by the U.S. Department of Labor’s (DOL) Office of Apprenticeship. States that administer their own registered apprenticeship programs should only need to execute a state inter-agency data sharing agreement to get individual-level data about these programs. States whose programs are administered by DOL can undertake a similar process to get individual-level data from DOL.

In order to get registered apprenticeship data from DOL, states should ask their workforce development agency to request the data from the state’s regional Employment and Training Administration (ETA) representative. The ETA representative should be able to pass the request along to the appropriate personnel at DOL. In order to share data, DOL will request that the state sign a MOU, and agree to keep the data safe. States who have signed MOUs with DOL report that the process takes about a year.

**STEP SIX: Share the data**

Once the state agency responsible for calculating attainment has received data from entities offering non-degree credentials, the sixth step is to prepare and share that data. The state agency collecting credentials data should clean the data – meaning that they correct or remove corrupt or inaccurate records. The agency calculating attainment should also take steps to ensure that individuals with multiple postsecondary credentials are not counted more than once.

If possible, and not already occurring, the state agency responsible for measuring credential attainment should send a copy of the credential measurement data to their state’s
longitudinal data system. This will allow them to link credential attainment data with other education and workforce data, in order to determine effective education pathways and the employment outcomes of those earning credentials. If a state has demographic data for individuals who obtain credentials, the state will be able to determine if outcomes are equitable. The state agency responsible for measuring attainment should also consider sending their credential data to Credential Engine, a non-profit organization that is creating a national database of information about postsecondary credentials.

**STEP SEVEN: Identify credentials of value**

Many states only want to count “quality” credentials towards their attainment goal. The Workforce Data Quality Campaign (WDQC) recommends that states identify which credentials have value as the seventh step in their process of measuring non-degree credential attainment. Determining what credentials are of value can be a difficult and controversial process that may distract states from collecting data. Furthermore, states can use the data they have collected as part of the process for determining what credentials are “of value.” Thus, we recommend focusing on this question after data has been obtained.

In order to identify non-degree credentials of value, the state agency responsible for calculating attainment, or another state agency if the state so chooses, should convene relevant stakeholders to discuss what criteria a credential of value should meet. At a minimum, state criteria should include:

- **Labor market demand:** States should use labor market information to determine if there is demand for occupations linked to the credential in the short (such as five years) and/or long term (such as ten years). States may choose to count only credentials for which there is significant short or long-term labor market demand. Alternatively, states may choose to count only credentials linked to occupations in industry sectors targeted by the state for economic growth.
- **Employer validation:** States should engage employers to validate employer use of the credential in human resource decisions, such as hiring or promotion. Employer engagement can be accomplished through the use of sector partnerships, which bring together multiple employers within an industry to collaborate with representatives from colleges, secondary schools, labor, workforce agencies, and community organizations to discuss how to align training with industry skills needs.
- **Credential completer employment outcomes:** States should consider the employment and earnings outcomes of credential completers. States may wish to set employment and wage thresholds that credentials of value must meet. In order to include credentials for in-demand but low-paying occupations, states may set thresholds compared to the median earnings for the occupation. For example, that credential completers must earn at least 80 percent of median earnings for that occupation. States should also consider whether and how to account for certain occupations (such as childcare providers) that serve the community but are typically low-paid.
- **Portability:** Credentials should have value to employers in more than one geographic location. States should decide whether a credential should enable completers to find employment throughout the local area, region, state, or nation.

Other criteria that states may also consider are:

- **Part of career pathways:** States may wish to consider whether the credential is incorporated into a career pathway (as defined by WIOA). Career pathways enable youth and adults with basic skills to combine education, training, and other services that will enable them to earn a postsecondary credential.
- **Stackability:** States may wish to consider whether the credential is stackable. Stackable credentials allow a completer to incorporate their credential into a sequence of credentials that can be accumulated over time and help them move along a career pathway.
- **Competency based:** States may wish to consider whether the credential is competency based. Competency based credentials allow the student and employer to have a clear understanding of what competencies and skills are associated with the attainment of that credential.

**STEP EIGHT: Measure credential attainment**

Once a state has the data it needs, has incorporated the data into the SLDS, and has defined which credentials will count towards the state’s attainment goal, the state can produce an unduplicated count of the number of residents who obtain a postsecondary credential of value.

**STEP NINE: Identify how to reach your state’s attainment goal**

The state should compare the number of credentials being produced within the state with the number necessary to reach the state’s attainment goal. The state should use this data and the data on the demographics of credential completers to inform the state’s plan on how to increase attainment and achieve the state’s goal.