ADVISORY: TRAINING AND EMPLOYMENT GUIDANCE LETTER NO. 15-10

TO: STATE WORKFORCE AGENCIES
                     STATE WORKFORCE ADMINISTRATORS
                     STATE WORKFORCE LIAISONS
                     STATE AND LOCAL WORKFORCE BOARD CHAIRS AND DIRECTORS
                     STATE LABOR COMMISSIONERS
                     STATE APPRENTICESHIP AGENCY DIRECTORS
                     ALL NATIONAL EMERGENCY GRANT RECIPIENTS
                     ALL TRADE ADJUSTMENT ASSISTANCE GRANT RECIPIENTS
                     ALL COMMUNITY-BASED JOB TRAINING GRANTEES

FROM: JANE OATES
                     Assistant Secretary

SUBJECT: Increasing Credential, Degree, and Certificate Attainment by Participants of the Public Workforce System

1. **Purpose.** President Barack Obama has called on the United States to have "the best educated, most competitive workforce in the world," once again leading the world in the percentage of Americans with postsecondary degrees and/or industry-recognized certificates and credentials by 2020. In today's increasingly competitive, dynamic, and fast-paced world economy, economic growth and broadly-shared prosperity depend upon the education and skills of the American workforce. According to the President, "Now is the time to build a firmer, stronger foundation for growth that will not only withstand future economic storms, but one that helps us thrive and compete in a global economy."

The purpose of this Training and Employment Guidance Letter (TEGL) is fourfold. First, this TEGL officially reinforces the President's goal that every American complete at least one year of postsecondary higher education or career training. Second, it announces the Employment and Training Administration's (ETA) commitment to the Secretary of Labor's High Priority Performance Goal to increase credential attainment by participants of the public workforce system.[1] Third, this TEGL describes strategies that state and local workforce agencies, their strategic partners, and ETA discretionary grantees can adopt to both increase the rate of credential attainment among workforce program participants and improve the quality of those credentials.

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[1] For purposes of this TEGL, "credential" is an umbrella term that encompasses educational certificates or degrees, occupational licenses, Registered Apprenticeship, and industry-recognized certifications. A definition is provided later in the document and additional detail is provided in Attachment 2.

RESCISSIONS	EXPIRATION DATE
None	Continuing

Fourth, it clarifies the reporting requirements for each of the programs included in the goal. Any additional requirements on state or local workforce agencies or discretionary grantees would be addressed in future guidance.

Attachment 1 provides performance data on credential attainment among Workforce Investment Act (WIA) exiters for Program Year (PY) 2008, broken out by state and territory, and is included to illustrate the information used to establish the baseline for the WIA title I programs that will contribute to the Secretary's High Priority Performance Goal. Attachment 2 addresses definitional questions relating to credentials and provides detailed information on the characteristics of credentials that can make them more or less valuable to individuals and employers in various circumstances. Attachment 2 also includes information on a variety of online resources and tools for identifying and evaluating specific credentials. Attachment 3 provides additional information on performance reporting, including the reports/data elements to be completed on individuals who attain a credential through one of the workforce programs.

The Secretary of Labor has proposed a number of High Priority Performance Goals in the Department of Labor's (DOL) 2011 Strategic Plan. With regard to credential attainment, the plan states: **"By June 2012, increase by 10 percent (to 220,000) the number of people who receive training and attain a degree or certificate through the following programs: Workforce Investment Act (WIA) adult, dislocated worker, and youth, National Emergency Grants (NEG), Trade Adjustment Assistance (TAA), and Career Pathways," including Community-Based Job Training grants.**[2] Each named program must report the number of program participants who earn credentials. Reporting requirements for each program are detailed in Section 7 of this TEGL. The goal reflects the Administration's continued emphasis on job training and the attainment of industry-recognized credentials as a strategy for both enhancing earnings and employment for participants in the public workforce system and meeting the economy's need for more skilled workers.

2. **References**.

- Workforce Investment Act (WIA) of 1998, as amended (29 U.S.C. 2801 et seq.), including title I D National Emergency Grants
- Wagner-Peyser Act, as amended (29 U.S.C. 49 et seq.)
- The Trade Act of 1974, as amended (19 U.S.C 2271 et seq.)
- WIA Regulations, 20 CFR parts 652 and 660-671
- Registered Apprenticeship Regulations, 29 CFR parts 29 and 30
- TAA Regulations, 20 CFR part 617
- American Recovery and Reinvestment Act of 2009 (P.L. 111-5)
- Planning Guidance for the Strategic State Plan for Title I of the Workforce Investment Act of 1998 and the Wagner-Peyser Act [73 FR 72853 (Dec. 1, 2008) OMB No. 1205-0398]
- TEGL No. 17-05, "Common Measures Policy for the Employment and Training Administration's (ETA) Performance Accountability System and Related Performance Issues"

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[2] See http://goals.performance.gov/agencies/agency?agencyId=16

- TEGL No. 2-07, "Leveraging Registered Apprenticeship as a Workforce Development Strategy for the Workforce Investment System"
- TEGL No. 14-08, "Guidance for Implementation of the Workforce Investment Act and Wagner-Peyser Act Funding in the American Recovery and Reinvestment Act of 2009 and State Planning Requirements for Program Year 2009"
- TEGL No. 22-08, "Operating Instructions for Implementing the Amendments to the Trade Act of 1974 Enacted by the Trade and Globalization Adjustment Assistance Act of 2009"
- TEGL No. 6-09, "Instructions for Implementing the Revised 2010 Trade Adjustment Assistance (TAA) Trade Activity Participant Report (TAPR)"
- TEGL No. 17-09, "Quarterly Submission of the Workforce Investment Act Standardized Record Data (WIASRD)"

3. **Background.** As the economy recovers and job growth returns, the public workforce system has a critical role to play in ensuring that job seekers and employers have access to the skills they need to compete and succeed. ETA recognizes that a more focused effort on credentialing can help lay the human capital foundation necessary to support new and growing sectors of the economy, including alternative energy and other "green" industries, health care, and advanced manufacturing. As we invest in skills development, we will not only help individuals return to work, we will also help workers obtain the measurable and specific skills they need to move along directed career pathways[3], while giving employers access to the skilled workers they need to compete globally.

The demand for skilled labor is projected to grow significantly over the next decade. According to the Bureau of Labor Statistics (BLS), between 2008 and 2018, 21 of the 30 fastest growing occupations will require a postsecondary certificate or degree. A recent study from the Brookings Institution uses BLS data to project that nearly half of all openings over the next decade will be for "middle-skill" jobs, those requiring more than high school but less than a college degree.[4] By 2018, 30 million new and replacement jobs will require some postsecondary education.[5] These white, green, and blue collar jobs pay family-sustaining wages and can be found in every sector of the economy, from manufacturing to customer service to health care.

While the projected job growth over the next decade is concentrated in occupations that require some postsecondary education or training, the cost of postsecondary education is rising and completion rates are falling. According to a 2009 Organization for Economic Co-operation and Development study, if current trends in postsecondary credential attainment continue, the next generation of American workers will be less educated than the previous generation for the first time in the country's history.[6] Similarly, a 2010 study by Georgetown

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[3] The term "career pathways" refers to a clear sequence of education and/or training coursework and related services that prepares individuals to meet their career objectives. Career pathway approaches to education and training have shown promising results for increasing credential attainment.

[4] Holzer, Harry J and Robert I Lerman. 2009. The Future of Middle-Skill Jobs. Center on Children and Families. The Brookings Institution: Washington, DC

[5] Replacement needs are the number of projected openings resulting from workers retiring from or permanently leaving an occupation.

[6] See also Carnevale, Smith, & Strohl. 2010. Help Wanted: Projections of Jobs and Education Requirements Through 2018, Center on Education and the Workforce, Georgetown University, June 2010.

University's Center on Education and the Workforce indicates that at current rates of postsecondary educational attainment, U.S. employers will face significant skills shortages by mid-decade, threatening their ability to compete in today's global economy and potentially leading them to move jobs overseas (see Carnevale, Smith, and Strohl, 2010). Declining rates of postsecondary credential attainment threaten both our global competitiveness and our ability to generate broadly-shared prosperity at home.

The value of credentials to employers, workers, and society at large cannot be overstated. For employers, credentials demonstrate and document skills, increasing their ability to fill skilled positions, build talent pipelines and compete. For workers and job seekers, credentials improve their labor market experience through higher earnings, greater mobility and enhanced job security. Good-paying jobs in high demand industries generally require some form of postsecondary education or training and the earnings bump that accompanies postsecondary credentials is well established. According to one recent study, workers with an associate's degree earned, on average, 33 percent more than workers with only a high school diploma or General Educational Development (GED) credential, and workers with a bachelor's degree earned 62 percent more than the workers with no postsecondary training or education.[7]

While a bachelor's or associate's degree is linked to higher earnings, so are occupational certificates that can be earned in less than two years. For example, according to one study, an occupational certificate earned through just one year of postsecondary study can produce a 20 percent increase in earnings for women.[8] The opportunity to earn credentials in less than two years is very attractive for youth and young adults who are at-risk, out-of-school, or have some other barrier to employment. Industry-recognized credentials that can be earned in as little as six months to two years provide an alternative to more lengthy and costly undergraduate degrees.

Credentials also provide some insulation for workers from downturns in the economy. Current BLS data indicate that unemployment rates among workers lacking a high school diploma or GED were anywhere from seven to ten percentage points higher than workers with bachelor's degrees. This finding is especially relevant for trade-affected workers; of those reported in the Trade Activity Participant Report (TAPR) as having been active participants in TAA programs during the first three quarters of FY 2010, more than a quarter had not completed high school or obtained a GED prior to participation, and well over two-thirds did not have educational attainment beyond a high school diploma or GED. In short, industry-recognized credentials provide a significant lift to precisely those workers who are most vulnerable in the labor market.[9]

The High Priority Performance Goal of increasing credential attainment among public workforce program participants presents an opportunity for the public workforce system to expand its efforts to equip American workers for the 21st century labor market. The goal

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[7] Holzer, Harry and Robert Lerman. 2007. America's Forgotten Middle-Skill Jobs: Education and Training Requirements in the Next Decade and Beyond. Washington DC: The Workforce Alliance.

[8] Kazis, Richard. *Community Colleges and Low Income Populations: A Background Paper.* Jobs for the Future, Boston: Jobs for the Future, 2002, p. 15.

[9] See Bosworth, Brian. 2007. Lifelong Learning: New Strategies for the Education of Working Adults. A Progressive Growth Policy Paper, Center for American Progress; Washington, DC.

reflects a growing appreciation of the urgent need for a more highly-skilled workforce to compete in today's global economy and supports the Administration's efforts to increase skill development opportunities for American workers, particularly those most disadvantaged in the current economic climate. The American Recovery and Reinvestment Act (ARRA) aimed to leverage the public workforce system to increase enrollment in the kind of longer-term training that equips participants with income-enhancing, industry-recognized credentials.[10] The current goal builds on that effort and also reinforces the workforce system's role in generating access to training options that help workers advance along a career pathway within a specific sector or occupational field. Each step on that pathway should be designed to lead to the attainment of a stackable and portable credential, certification or degree that is recognized by employers and utilized in hiring decisions. Key to the success of this goal are: 1) strong partnerships with businesses of all sizes in the identification of skill gaps and the development of high-quality training programs that are timely, responsive and employer-driven; and 2) strong coordination with other public agencies, including education, economic development and human services, to ensure the effective leveraging and targeting of public resources aimed at increasing the skills of American workers.

4. **Defining Credentials and Their Importance.** Within the context of workforce development generally, the term credential refers to an attestation of qualification or competence issued to an individual by a third party (such as an educational institution or an industry or occupational certifying organization) with the relevant authority or assumed competence to issue such a credential.

Examples of credentials include:

- Educational Diplomas and Certificates (typically for one academic year or less of study);
- Educational Degrees, such as an associate's (2-year) or bachelor's (4-year) degree;
- Registered Apprenticeship Certificate;
- Occupational Licenses (typically, but not always, awarded by state government agencies); and
- Industry-recognized or professional association certifications; also known as personnel certifications; and
- Other certificates of skills completion.

For a more complete and detailed discussion of credentials, please see Attachment 2.

In TEGL 17-05, ETA has a definition of certificate which has also served as the definition of a credential for performance reporting purposes. To bring ETA's terminology in line with the fields of education and industry, the term credential (and not certificate) will be used as the umbrella term which encompasses postsecondary degrees, diplomas, licenses, certificates

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[10] For example, the amendments made to the Trade Act of 1974 under ARRA extended the maximum number of weeks of income support for TAA eligible workers from 130 weeks to 156 weeks, which improved the opportunity for these workers to obtain approval for, and complete, longer term training such as a two year Associate's degree, a nursing certificate, or completion of a program already begun to attain a four-year degree. The maximum number of weeks of a TAA-approvable training program is and was not set by statute, but by guidance through TEGLs. See TEGL 22-08 for guidance on the length of training funded by the TAA program. See also TEGL 14-08 for specific guidance on using ARRA funds to support longer-term training for WIA participants.

and certifications. As such, for purposes of accounting for credential attainment within the workforce system, the following definition is a modification to update the "certificate" definition from TEGL 17-05 Attachment B:

A **credential** is awarded in recognition of an individual's attainment of measurable technical or occupational skills necessary to obtain employment or advance within an occupation. These technical or occupational skills are generally based on standards developed or endorsed by employers. Certificates awarded by workforce investment boards (WIBs) are not included in this definition, nor are work readiness certificates because neither of them document "measurable technical or occupational skills necessary to gain employment or advance within an occupation." A variety of different public and private entities issue credentials. Below is a list of types of organizations and institutions that award industry-recognized credentials.

- A state educational agency or a state agency responsible for administering vocational and technical education within a state.
- An institution of higher education described in Section 102 of the Higher Education Act (20 USC 1002) that is qualified to participate in the student financial assistance programs authorized by Title IV of that Act. This includes community colleges, proprietary schools, and all other institutions of higher education that are eligible to participate in federal student financial aid programs.
- A professional, industry, or employer organization (e.g., National Institute for Automotive Service Excellence certification, or a National Institute for Metalworking Skills, Inc., Machining Level I credential) or a product manufacturer or developer (e.g., Microsoft Certified Database Administrator, Certified Novell Engineer, or a Sun Certified Java Programmer) using a valid and reliable assessment of an individual's knowledge, skills and abilities.
- ETA's Office of Apprenticeship or a State Apprenticeship Agency.
- A public regulatory agency, upon an individual's fulfillment of educational, work experience, or skill requirements that are legally necessary for an individual to use an occupational or professional title or to practice an occupation or profession (e.g., Federal Aviation Administration aviation mechanic license, or a state licensed asbestos inspector).
- A program that has been approved by the Department of Veterans Affairs to offer education benefits to veterans and other eligible persons.
- Job Corps centers that issue certificates.
- An institution of higher education which is formally controlled, or has been formally sanctioned or chartered, by the governing body of an Indian tribe or tribes.

For further information about the various types of credentials and resources for identifying them, please see the Credential Reference Guide in Attachment 2.

5. **Credential Attainment: Implications of Recent Trends in the Public Workforce System.**
Individual record data collected through the Workforce Investment Act Standardized Reporting Data (WIASRD) point to declining rates of credential attainment among public

workforce participants. Table 1 and Chart 1 illustrate the trend away from credential attainment; for each Program Year from 2005-2008, the percentage of WIA exiters earning a credential declined.

Table 1: Type of Credential Attained by WIA Adult and Dislocated Worker Program Exiters who Received Training by Type of Recognized Credential

Type of Recognized Credential	PY 2004	PY 2005	PY 2006	PY 2007	PY 2008
Occupational Skills Certificate/Credential	47.6%	46.1%	43.6%	42.2%	40.2%
Occupational Skills Licensure	10.8%	10.6%	11.3%	11.4%	11.4%
AA or AS Diploma/Degree	6.2%	7.8%	7.3%	7.0%	6.8%
Other Recognized Educational Occupational Skills Certificate	7.6%	8.9%	8.5%	5.6%	5.2%
BA or BS Diploma/Degree	1.2%	1.4%	1.5%	1.5%	1.5%
High School Diploma/GED	0.4%	0.5%	0.7%	1.0%	1.1%
Total Receiving Recognized Credential	**73.8%**	**75.3%**	**72.9%**	**68.7%**	**66.3%**

Source: Program Year 2008 Workforce Investment Act Standardized Record Data

Chart 1: WIA Exiter Credential Attainment By Year
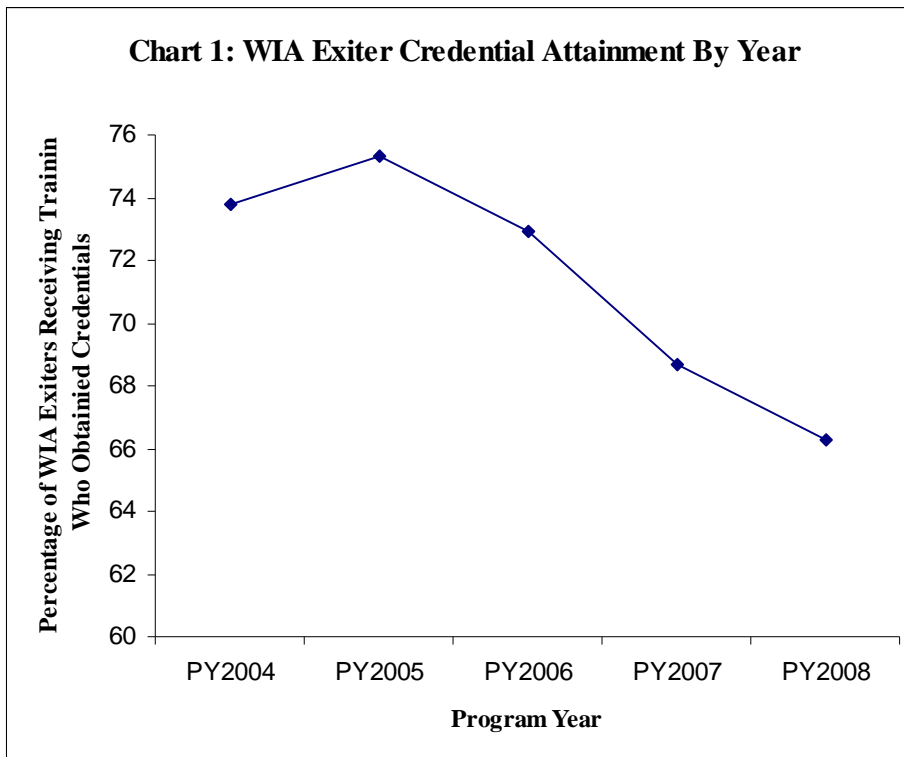
A number of factors explain the lower rates of credential attainment among public workforce participants, the most immediate of which is the decline in the number of individuals receiving training. The system's focus on rapid job placement and the preference of many program participants for immediate employment rather than job training, contributed to the decline. Limited access to financial aid and supportive services for program participants,

combined with reductions in Federal funding for training, further reinforced the trend away from training and credential attainment. Finally, the larger economic context of relatively low levels of unemployment during the first half of the decade contributed to the system's focus on employment over training throughout most of the decade.

Table 2: Credential Attainment Among WIA Exiters
October 2007-September 2008

	Number of Exiters	Received Credential	Percent Received Credential
All WIA Adult Exiters	786,653		
Received Training (subset)	107,437	59,547	55.4%
All Dislocated Worker Exiters[11]	241,459		
Received Training (subset)	57,349	37,153	64.8%
All National Emergency Grant Exiters	10,843		
Received Training (subset)	5,487	2,458	44.8%
Youth	118,778		
Enrolled in Education	94,050	56,469	60.0%

Source: Program Year 2008 Workforce Investment Act Standardized Record Data

The data in the Table 2 illustrate that only a small subset of WIA program exiters received training of any kind and, of those that did, a little over half obtained a certificate or degree. Among adult workers, for example, just over half who received training also obtained a credential. Of the over five thousand dislocated workers who received training through a National Emergency Grant in 2008, fewer than half obtained a credential[12].

6. **Improving Credential Attainment: The Role of the Public Workforce System.**
   The public workforce system has a vital role to play in increasing access to credentials through its relationships with employers, labor and industry organizations, Registered Apprenticeship programs, economic development agencies, community-based and philanthropic organizations, discretionary grantees, and education and training providers. State and local WIBs are particularly well positioned to convene the diverse stakeholders and forge a common strategy around improving credential attainment in ways that benefit both jobseekers and employers. Increasing credential attainment requires aligning state and local policies and service delivery models to support higher enrollments in credential-issuing training programs. Increased access to and linkages among supportive and wrap-around services that allow individuals to stay in and complete programs are also critical to improving completion rates. Finally, success will require close coordination with local employers and training providers to identify and, in some cases, develop industry-recognized credentials for local, in-demand jobs. Below are strategies that state workforce agencies, state and local WIBs, One-Stop Career Centers, and DOL discretionary grantees can use to increase the quantity and quality of credentials attained with the support of the public workforce investment system.

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[11] These figures exclude National Emergency Grant exiters.
[12] Credentialing information began to be collected for TAA participants in FY 2010; therefore no information is available prior to that period.

I. Strategies for Increasing Credential Attainment among Public Workforce Program Participants

A first step toward increasing the level of credential attainment among public workforce program participants is to refer more individuals to training. Completion of a postsecondary training or education program is the most typical way to earn a credential. However, as the preceding analysis indicates, a very small percentage of WIA exiters participate in training. Increasing the number of WIA and TAA participants enrolled in programs that result in credentials or in educational programs that conclude in a certification examination will have an immediate impact on the level of credential attainment.

While more referrals to training will help, they are only the first step. To earn a credential, two other conditions must be met: 1) the training program must result in a credential and 2) the individual must complete the program. To ensure that workforce program participants are referred to training that results in industry-recognized credentials with labor market value, public workforce agencies can do the following.

a. Use referrals and the Eligible Training Provider List (ETPL) to encourage the creation or issuance of industry-recognized credentials by local training and education providers.

b. Build the capacity of One-Stop and other frontline staff to help customers seeking training to invest their funds and time in programs that will lead to industry-recognized credentials for jobs in demand in the regional labor market. When referring individuals to training, frontline staff should make them aware of the advantages of programs that issue industry-recognized credentials.

c. Build the capacity of One-Stop and other frontline staff to help customers develop individualized career plans that support an individual's journey through the pathway.

d. Develop visual and virtual "roadmaps" that enable customers and frontline staff to map the education and training they must complete, and credentials they must acquire, to reach their goals.

e. In the case of TAA eligible individuals, make use of new case management funds available as a result of the 2009 amendments to the Trade Act of 1974 authorized under ARRA. As stated in Section 235 of the Trade Act, as amended, these funds should be used to provide services including, but not limited to:

   i. Development of an individual employment plan to identify employment goals and objectives, and appropriate training to achieve those goals and objectives, and

ii.   Information on training available in local and regional areas, information on individual counseling to determine which training is suitable training, and information on how to apply for such training[13].

To ensure that workforce program participants complete credential-bearing training programs, state and local workforce agencies can use strategies that shorten training duration and provide supportive services that enable individuals to persist in training, both of which have been linked to higher levels of program completion.[14]

To shorten the duration in training, state and local workforce agencies can pursue the following strategies.

a.   Assess prior learning to help adults and dislocated workers obtain academic credit for independently attained knowledge and skills, thereby accelerating the process of credential attainment. See Attachment 2 for specific resources that enable adults to earn college credit for prior learning and experience.

b.   Offer WIA title I contextualized training programs that lead to a credential for low-skilled participants. Such programs combine basic literacy and numeracy components with occupational skills training to accelerate learning and credential attainment in growing industries.

c.   When warranted, co-enroll low-skilled participants in WIA titles I and II to support their participation in Integrated Education and Training (IET) programs, a service approach that combines adult basic education, including English as a second language, with occupational skills training and issues GEDs and postsecondary, industry-recognized credentials. By enabling individuals to obtain adult basic education credentials and occupational credentials at the same time, IET programs can significantly accelerate the process of credential attainment.

d.   Encourage training providers to modularize curricula into smaller portions, or chunks, enhancing the ability of individuals to earn interim credentials and combine part-time study with full-time employment and/or supporting a family. A chunked curriculum is one that has been broken down into smaller units, each of which is stackable and linked to other

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[13] 20 CFR 617.22 (2) and (3) detail two of the six criteria that must be met for approval of TAA training: (2) that the worker would benefit from appropriate training, and; (3) that the training would result in a reasonable expectation of employment. The individual employment plan should be used to document how credential-related training programs may be used to satisfy (2). In the case of (3), the information provided on training programs should include those that lead to industry recognized credentials.

[14] Prince, David and Davis Jenkins. 2005. Building Pathways to Success for Low-Skill Adult Students: Lessons for Community College Policy and Practice from a Longitudinal Student Tracking Study. Olympia, WA: Washington State Board for Community and Technical Colleges.

modules in a series that culminates in an industry-recognized credential.[15] Enabling students to earn a credential non-sequentially and non-continually has been demonstrated to increase rates of credential attainment and, in turn, employment and earning outcomes.[16]

    e. Fund curriculum development for accelerated programs and programs that integrate adult education (and English language services as appropriate) with occupational training to accelerate learning and help people earn industry-recognized credentials expeditiously.[17]

To provide participants with resources to help them complete training, state and local workforce agencies can:

    a. Leverage the full array of supportive services allowed through title I of WIA, including subsidies for childcare and transportation, as well as additional benefits and supportive services available to individuals eligible for the TAA program;

    b. Build frontline staff knowledge of, and make available to customers, information about expanded eligibility for Pell Grants and other sources of student financial aid for nontraditional students, as well as supportive services available through other federal, state and local programs;

    c. Foster stronger program linkages among WIA, Registered Apprenticeships, TAA, Temporary Assistance to Needy Families (TANF), Vocational Rehabilitation, Social Security's Ticket to Work Program, and the Carl D. Perkins Career and Technical Education Act to provide seamless service delivery and enable participants to access a wide array of supportive services and income supports to facilitate access to and persistence in credential-granting training and education programs; and/or

    d. Partner with local community-based organizations that work with specific populations to deliver supportive services and provide other income supports and wrap-around services as appropriate.

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[15] A credential is considered "stackable" when it is part of a sequence of credentials that can be accumulated over time and move an individual along a career pathway or up a career ladder. For a more complete definition, please see Attachment 2.

[16] Duke, Amy-Ellen and Julie Strawn. 2008. Overcoming Obstacles, Optimizing Opportunities: State Policies to Increase Postsecondary Attainment for Low-Skilled Adults. Boston, MA: Jobs for the Future.

[17] ARRA allows states to use WIA ARRA funds for curriculum development. Specifically, TEGL 14-08 states "As part of the contract, the institution of higher education or eligible training provider could develop curricula for emerging sectors and enhance the capacity of the institutions to ensure quality training within limited timeframes. As such, the development of curricula by institutions of higher education can be considered a training activity under WIA, if it is developed in the context of providing training to WIA participants. To be consistent with the timely spending of Recovery Act funds, curriculum activities should focus on adapting existing or creating new curricula that will result in a short-term increase in training capacity, rather than long-term curriculum development activities."

II. Strategies for Improving the Value of Credentials to Program Participants
To meet the challenge of improving the quality of credentials attained through participation in public workforce programs and ensuring that the credentials are industry-recognized and result in improved employment and earnings, state and local workforce agencies should build the capacity of front-line staff to identify and assess the value and appropriateness of credentials for program customers. Specifically, workforce agencies should do the following.

a. Train staff to verify the requirements and value of specific industry-recognized certifications in demand in the local labor market. Not all credentials carry equal weight in the labor market, and some require significantly greater investment of time and resources than others. Key questions to consider when referring a customer to a credential-issuing education or training program include the following.
   i. Is the credential recognized by employers and used in hiring, promotion, and compensation decisions?
   ii. Are the skills documented through the credential currently in demand in the local labor market?
   iii. Is an entrance examination required?
   iv. Is there a standard amount of work experience or internship time required?
   v. Is the credential embedded in a larger career pathway model that provides opportunities to continue developing income-enhancing skills and competencies?

b. Ensure that frontline case managers, career counselors, and job developers have a working knowledge of state and Federal occupational licensure requirements and are familiar with locally available for-credit educational programs or Registered Apprenticeship opportunities that prepare individuals to take licensure and/or certification examinations, or include that examination as the capstone to the program. If an occupation is licensed, the license is often required before a person can be employed in that capacity.

c. Train staff to conduct market research with local employers to identify in-demand credentials and local education and training providers that issue industry-recognized credentials.

State workforce agencies and local WIBs can increase the value of credentials by encouraging education and training providers to issue in-demand credentials and encouraging employers to use credentials in their hiring and promotion decisions. Specifically, workforce agencies can do the following.

a. Include the issuance of industry-recognized credentials in the criteria for the state's ETPL.

b. Increase the portability and stackability of specific credentials by working with educational partners on developing articulation agreements within and among the state's community colleges and other training providers.

c. Work with local and regional employers around identification of in-demand credentials that will have labor market value for business and for the individuals who earn them. Part of this work may involve developing or customizing competency models and linking them to existing credentials or to serve as the basis for developing new credentials.

d. Encourage community colleges to link non-credit and for-credit programs, enabling individuals who earn industry-recognized certificates to apply them toward credit for an educational degree.

e. Organize and display labor market information in relation to specific credentials by highlighting the number of jobs projected to exist in occupations for which a given industry-recognized credential and/or degree program prepares individuals; the projected entry-level salary for a worker in this occupation; the estimated median salary in this occupation; and the estimated salary for an experienced worker in this occupation.

Longer-term strategies for improving the quantity and quality of credentials available to youth, adults and dislocated workers will require collaboration among state workforce, education, human services, and economic development agencies as they work with employers to develop regional economic approaches to human capital development. States should look for ways to encourage industry collaboration in the development of career pathways and credentialing models. State agencies and local WIBS can use the Industry Competency Model Clearinghouse located on the CareerOneStop Website to help local employers and education providers map out career pathways and competency models. These tools can be accessed at www.careeronestop.org/competencymodel. This resource as well as others can be found in Attachment 2, along with information about occupational and industry certifications.

7. **Reporting.** For ETA to assess whether this guidance has an impact, the reporting of credential attainment is critical. States and grantees should ensure that training services received and credentials attained are reported accurately and timely in the state and grantee performance reports submitted to ETA for WIA title I and TAA programs, and other grants. For reporting purposes, the definition of certificate included in Section 4 of this guidance shall be used for the purpose of reporting credential attainment. A description of the reports where this information should be reported may be found in Attachment 3.

Furthermore, regardless of whether a state has an approved waiver to report common performance measures outcomes only for WIA Title I programs, all states must provide information on participants' credential attainment in the WIASRD and the TAPR. More detailed information on the WIASRD reporting guidelines are articulated in TEGL 17-09.

Reporting guidelines for the TAA program are found in TEGL 6-09. Note that Credential attainment is a new data element for the TAA program effective FY 2010.

8. **Action Requested.** States and grantees should distribute this guidance to the appropriate staff and ensure timely implementation.

9. **Inquiries.** Questions regarding credentialing should be directed to the appropriate ETA Regional Office, or to the Office of Workforce Investment (NO-OWI.Official@dol.gov)

10. **Attachments.**
    Attachment 1: PY 2008 WIA Adult, Youth, and National Emergency Grant (NEG) Exiters Obtaining a Credential/Degree by State
    Attachment 2: Credential Reference Guide
    Attachment 3: Performance Reports for Reporting Credential Attainment by Program

PY 2008 Adult Exiters who Obtained a Credential/Degree by State

State	Number of Exiters		Received Credential or Degree		Percent Received Credential or Degree	
Adult Exiters						
	Total	Received Training	Total	Received Training	Total	Received Training
AK	548	417	284	284	51.8	68.1
AL	5,095	4,310	1,022	1,022	20.1	23.7
AR	878	746	592	592	67.4	79.4
AZ	4,684	1,523	1,195	1,194	25.5	78.4
CA	31,547	6,641	4,008	3,973	12.7	59.8
CO	3,098	2,012	1,026	1,025	33.1	50.9
CT	774	576	427	427	55.2	74.1
DC	737	459	266	266	36.1	58.0
DE	372	358	273	273	73.4	76.3
FL	16,700	12,800	11,154	11,154	66.8	87.1
GA	2,907	1,838	1,351	1,351	46.5	73.5
HI	333	222	173	173	52.0	77.9
IA	495	403	265	265	53.5	65.8
ID	420	343	232	232	55.2	67.6
IL	5,252	2,900	1,865	1,865	35.5	64.3
IN	48,801	3,347	1,883	1,836	3.9	54.9
KS	2,132	1,684	0	0	0.0	0.0
KY	3,228	2,017	1,010	1,009	31.3	50.0
LA	113,069	3,238	1,881	1,877	1.7	58.0
MA	1,858	1,215	1,023	1,023	55.1	84.2
MD	1,480	647	385	384	26.0	59.4
ME	370	242	152	151	41.1	62.4
MI	6,787	3,738	2,814	2,814	41.5	75.3
MN	1,228	611	342	341	27.9	55.8
MO	3,747	1,421	589	576	15.7	40.5
MS	34,039	4,670	2,167	2,167	6.4	46.4
MT	261	226	59	59	22.6	26.1
NC	2,841	2,362	1,420	1,418	50.0	60.0
ND	537	141	10	9	1.9	6.4
NE	500	447	283	283	56.6	63.3
NH	421	325	280	280	66.5	86.2
NJ	3,200	2,165	1,514	1,503	47.3	69.4
NM	1,207	958	592	592	49.0	61.8
NV	1,068	365	302	301	28.3	82.5
NY	365,383	7,452	3,035	3,010	0.8	40.4
OH	9,627	5,564	3,653	3,640	37.9	65.4
OK	48,078	1,066	594	593	1.2	55.6
OR	4,846	977	636	636	13.1	65.1
PA	4,861	2,298	1,207	1,206	24.8	52.5
PR	5,306	2,437	1,107	1,101	20.9	45.2
RI	643	165	117	117	18.2	70.9
SC	8,540	4,632	2,178	2,178	25.5	47.0
SD	969	404	225	223	23.2	55.2
TN	6,876	4,880	2,609	2,602	37.9	53.3
TX	20,773	6,043	NA	NA	NA	NA
UT	936	909	132	132	14.1	14.5
VA	1,848	1,241	737	736	39.9	59.3
VI	181	14	5	5	2.8	35.7
VT	151	121	84	84	55.6	69.4
WA	4,189	2,143	1,315	1,315	31.4	61.4
WI	1,620	920	710	710	43.8	77.2
WV	990	664	430	430	43.4	64.8
WY	222	140	110	110	49.5	78.6
Total	**786,653**	**107,437**	**59,723**	**59,547**	**7.6**	**55.4**

PY 2008 Dislocated Worker Exiters who Obtained a Credential/Degree by State

State	Dislocated Worker Exiters					
	Number of Exiters		Received Credential or Degree		Percent Received Credential or Degree	
	Total	Received Training	Total	Received Training	Total	Received Training
AK	331	210	159	159	48.0	75.7
AL	1,036	741	401	401	38.7	54.1
AR	298	260	188	188	63.1	72.3
AZ	1,890	563	460	460	24.3	81.7
CA	12,792	4,539	3207	3207	25.1	70.7
CO	830	513	251	251	30.2	48.9
CT	598	425	333	333	55.7	78.4
DC	44	29	21	21	47.7	72.4
DE	145	128	72	72	49.7	56.3
FL	2,913	1,720	1259	1259	43.2	73.2
GA	2,034	1,699	1269	1269	62.4	74.7
HI	273	83	67	67	24.5	80.7
IA	1,000	663	463	463	46.3	69.8
ID	365	261	179	179	49.0	68.6
IL	6,022	2,788	1872	1872	31.1	67.1
IN	3,955	1,212	705	704	17.8	58.1
KS	658	486	NA	NA	NA	NA
KY	1,597	760	509	509	31.9	67.0
LA	2,344	295	191	190	8.1	64.4
MA	3,509	2,228	1908	1908	54.4	85.6
MD	1,164	435	209	209	18.0	48.0
ME	480	303	180	180	37.5	59.4
MI	5,187	3,163	2361	2361	45.5	74.6
MN	2,582	595	350	350	13.6	58.8
MO	2,523	1,056	349	349	13.8	33.0
MS	20,321	2,096	905	905	4.5	43.2
MT	259	206	24	24	9.3	11.7
NC	2,533	2,026	1347	1347	53.2	66.5
ND	122	59	NA	NA	NA	NA
NE	246	209	149	149	60.6	71.3
NH	510	358	334	334	65.5	93.3
NJ	3,766	3,082	2233	2232	59.3	72.4
NM	184	149	89	89	48.4	59.7
NV	692	288	218	218	31.5	75.7
NY	118,407	3,684	1820	1818	1.5	49.3
OH	4,067	2,486	1808	1808	44.5	72.7
OK	558	466	263	263	47.1	56.4
OR	3,145	864	494	494	15.7	57.2
PA	5,637	2,863	1313	1313	23.3	45.9
PR	1,647	540	330	330	20.0	61.1
RI	476	188	158	158	33.2	84.0
SC	5,226	2,726	1347	1347	25.8	49.4
SD	203	82	54	54	26.6	65.9
TN	2,801	1,802	1321	1320	47.2	73.3
TX	6,707	2,833	NA	NA	NA	NA
UT	314	302	34	34	10.8	11.3
VA	2,335	1,204	815	815	34.9	67.7
VI	124	5	0	0	0.0	0.0
VT	126	113	77	77	61.1	68.1
WA	2,895	1,571	986	986	34.1	62.8
WI	2,801	1,572	1150	1150	41.1	73.2
WV	780	413	318	318	40.8	77.0
WY	7	7	5	5	71.4	71.4
Total	**241,459**	**57,349**	**34,555**	**34,549**	**14.3**	**60.2**

Note: WIA Dislocated workers excludes individuals served only by NEG projects.

PY 2008 WIA Youth Exiters who Obtained a Credential/Degree by State

	Youth Exiters		
State	**Number of Exiters**	**Received Credential or Degree**	**Percent Received Credential or Degree**
	Total	Total	Total
AK	544	292	53.7
AL	970	258	26.6
AR	877	618	70.5
AZ	1248	708	56.7
CA	12650	5882	46.5
CO	1115	499	44.8
CT	556	417	75.0
DC	239	91	38.1
DE	166	105	63.3
FL	4055	2441	60.2
GA	2343	1368	58.4
HI	276	151	54.7
IA	532	317	59.6
ID	440	301	68.4
IL	3763	2203	58.5
IN	3596	1799	50.0
KS	923	459	49.7
KY	1697	1108	65.3
LA	1272	506	39.8
MA	1403	854	60.9
MD	999	656	65.7
ME	342	187	54.7
MI	6568	2736	41.7
MN	1611	705	43.8
MO	1901	759	39.9
MS	3911	2124	54.3
MT	200	89	44.5
NC	2114	967	45.7
ND	305	126	41.3
NE	325	182	56.0
NH	287	141	49.1
NJ	2864	1305	45.6
NM	1126	360	32.0
NV	448	77	17.2
NY	6844	4065	59.4
OH	3986	2125	53.3
OK	671	286	42.6
OR	1778	1083	60.9
PA	3540	1771	50.0
PR	18347	5057	27.6
RI	202	89	44.1
SC	2605	1323	50.8
SD	509	243	47.7
TN	3714	2423	65.2
TX	8547	3762	44.0
UT	637	280	44.0
VA	1300	549	42.2
VI	13	3	23.1
VT	254	49	19.3
WA	2281	1280	56.1
WI	1077	670	62.2
WV	615	327	53.2
WY	192	100	52.1
Total	**118,778**	**56,276**	**47.4**

Program Year 2008 NEG Exiters who Obtained a Credential/Degree by State

State	Number of Exiters		Received Credential or Degree		Percent Received Credential or Degree	
	Total	Received Training	Total	Received Training	Total	Received Training
AK	23	23	19	19	82.6	82.6
AL	NA	NA	NA	NA	NA	NA
AR	19	11	8	7	42.1	63.6
AZ	NA	NA	0	0	NA	NA
CA	2418	1026	572	560	23.7	54.6
CO	NA	NA	NA	NA	NA	NA
CT	13	11	11	11	84.6	100.0
DC	NA	NA	NA	NA	NA	NA
DE	NA	NA	NA	NA	NA	NA
FL	98	53	30	30	30.6	56.6
GA	197	117	66	66	33.5	56.4
HI	168	16	15	15	8.9	93.8
IA	581	253	192	192	33.0	75.9
ID	110	86	51	51	46.4	59.3
IL	5	1	0	0	0.0	0.0
IN	48	9	3	2	6.3	22.2
KS	150	27	2	2	1.3	7.4
KY	55	44	34	34	61.8	77.3
LA	929	640	411	411	44.2	64.2
MA	719	383	286	286	39.8	74.7
MD	6	3	0	0	0.0	0.0
ME	199	111	39	39	19.6	35.1
MI	29	29	24	24	82.8	82.8
MN	93	25	17	17	18.3	68.0
MO	307	144	14	13	4.6	9.0
MS	1556	760	207	207	13.3	27.2
MT	57	45	8	8	14.0	17.8
NC	39	18	8	8	20.5	44.4
ND	NA	NA	NA	NA	NA	NA
NE	2	2	0	0	0.0	0.0
NH	162	7	7	7	4.3	100.0
NJ	NA	NA	NA	NA	NA	NA
NM	NA	NA	NA	NA	NA	NA
NV	NA	NA	NA	NA	NA	NA
NY	NA	NA	NA	NA	NA	NA
OH	78	68	53	53	67.9	77.9
OK	NA	NA	NA	NA	NA	NA
OR	465	212	46	46	9.9	21.7
PA	129	34	12	12	9.3	35.3
PR	NA	NA	NA	NA	NA	NA
RI	92	18	15	15	16.3	83.3
SC	11	11	6	6	54.5	54.5
SD	45	44	12	12	26.7	27.3
TN	17	14	11	11	64.7	78.6
TX	1599	983	45	42	2.8	4.3
UT	2	2	0	0	0.0	0.0
VA	51	10	10	10	19.6	100.0
VI	NA	NA	0	0	NA	NA
VT	NA	NA	0	0	NA	NA
WA	55	8	6	5	10.9	62.5
WI	254	181	149	149	58.7	82.3
WV	62	58	8	8	12.9	13.8
WY	NA	NA	0	0	NA	NA
Total	**10,843**	**5,487**	**2,397**	**2,378**	**22.1**	**43.3**

Credential Resource Guide

The purpose of this Credential Resource Guide is to provide information on the types of credentials available to workforce program participants and explain how they can acquire and leverage these credentials to build lasting careers. This resource guide is organized into five sections.

- **Section 1** - **Defining Credentials**
- **Section 2 - Understanding Credentials**
- **Section 3** - **Tools for Identifying Credentials**
- **Section 4 - Acquiring and Leveraging Credentials**
- **Section 5** - **Current Models of Industry-Recognized Stackable Credentials**

1.0 Defining Credentials

There are many different types of credentials offered or awarded by various types of organizations. This document is intended as a reference guide and glossary to further define these various types of credentials and also to provide links to online resources where listings of specific credentials are available within each type.

Overall description of credential. Within the context of education, workforce development, and employment and training for the labor market, the term *credential* refers to a verification of qualification or competence issued to an individual by a third party with the relevant authority or jurisdiction to issue such credentials (such as an accredited educational institution, an industry-recognized association, or an occupational association or professional society).

The range of different types of credentials includes:
1. Educational diplomas, certificates and degrees;
2. Registered apprenticeship certificates;
3. Occupational licenses (typically awarded by State government agencies);
4. Personnel certifications from industry or professional associations; and
5. Other skill certificates for specific skill sets or competencies within one or more industries or occupations (e.g. writing, leadership, etc.).

These categories of credentials are further defined and described in the sections below.

1.1. Glossary of Educational Credentials/Awards

The terms most commonly used for educational credentials are: *diploma*, *certificate*, and *degree*. *Credit hours* are the building block components of these educational credentials.

High school diploma or recognized equivalent	A document certifying the successful completion of a prescribed secondary school program of studies, or the attainment of satisfactory scores on the General Educational Development (GED) test or another state specified examination.
Postsecondary award, certificate, or diploma (less than 1 academic year)	An award that requires completion of an organized program of study at the postsecondary level (below the baccalaureate degree) in less than 1 academic year (2 semesters or 3 quarters), or designed for completion in less than 30 semester or trimester credit hours, or in less than 45 quarter credit hours, or in less than 900 contact or clock hours, by a student enrolled full time.
Postsecondary award, certificate, or diploma (at least 1 but less than 2 academic years)	An award that requires completion of an organized program of study at the postsecondary level (below the baccalaureate degree) in at least 1 but less than 2 full-time equivalent academic years , or designed for completion in at least 30 but less than 60 semester or trimester credit hours, or in at least 45 but less than 90 quarter credit hours, or in at least 900 but less than 1,800 contact or clock hours, by a student enrolled full time.
Postsecondary award, certificate, or diploma (at least 2 but less than 4 academic years)	An award that requires completion of an organized program of study at the postsecondary level (below the baccalaureate degree) in at least 2 but less than 4 full-time equivalent academic years , or designed for completion in at least 60 but less than 120 semester or trimester credit hours, or in at least 90 but less than 180 quarter credit hours, or in at least 1,800 but less than 3,600 contact or clock hours, by a student enrolled full time.
Certificate	A formal award certifying the satisfactory completion of a postsecondary education program.
Post-baccalaureate certificate	An award that requires completion of an organized program of study equivalent to 18 semester credit hours beyond the bachelor's degree. It is designed for persons who have completed a baccalaureate degree, but does not meet the requirements of a master's degree.
Post-master's certificate	An award that requires completion of an organized program of study equivalent to 24 semester credit hours beyond the master's degree, but does not meet the requirements of academic degrees at the doctor's level.
First-professional certificate (post-degree)	An award that requires completion of an organized program of study designed for persons who have completed the first-professional degree (see next page). Examples could be refresher courses or additional units of study in a specialty or subspecialty.

Degree	An award conferred by a college, university, or other postsecondary education institution as official recognition for the successful completion of a program of studies.
Associate's degree	An award that normally requires at least 2 but less than 4 years of full-time equivalent college work.
Bachelor's degree	An award (baccalaureate or equivalent degree, as determined by the Secretary, U.S. Department of Education) that normally requires at least 4 but not more than 5 years of full-time equivalent college-level work. This includes all bachelor's degrees conferred in a 5-year cooperative (work-study) program. A cooperative plan provides for alternate class attendance and employment in business, industry, or government; thus, it allows students to combine actual work experience with their college studies. Also includes bachelor's degrees in which the normal 4 years of work are completed in 3 years.
Master's degree	An award that requires the successful completion of a program of study of at least the full-time equivalent of 1 but not more than 2 academic years of work beyond the bachelor's degree. Some of these degrees, such as those in Theology (M.Div., M.H.L./Rav) that were formerly classified as "first-professional", may require more than two full-time equivalent academic years of work.

First-professional degree	An award that requires completion of a program that meets all of the following criteria: (1) completion of the academic requirements to begin practice in the profession; (2) at least 2 years of college work prior to entering the program; and (3) a total of at least 6 academic years of college work to complete the degree program, including prior required college work plus the length of the professional program itself. First-professional degrees may be awarded in the following 10 fields:
	   Chiropractic (D.C. or D.C.M.)
	   Dentistry (D.D.S. or D.M.D.)
	   Law (L.L.B. or J.D.)
	   Medicine (M.D.)
	   Optometry (O.D.)
	   Osteopathic Medicine (D.O.)
	   Pharmacy (Pharm.D.)
	   Podiatry (D.P.M., D.P., or Pod.D.)
	   Theology (M.Div., M.H.L., B.D., or Ordination)
	   Veterinary Medicine (D.V.M.)

Doctor's degree	The highest award a student can earn for graduate study. The doctor's degree classification includes such degrees as Doctor of Education, Doctor of Juridical Science, Doctor of Public Health, and the Doctor

> of Philosophy degree in any field such as agronomy, food technology, education, engineering, public administration, ophthalmology, or radiology.

Source: U.S. Department of Education, National Center for Education Statistics, Integrated Postsecondary Education Data System Glossary at: http://nces.ed.gov/ipeds/glossary/.

1.2. Apprenticeship Certification or Certificate

The Registered Apprenticeship system offers two types of credentials for workers: 1) certificate of completion of an apprenticeship program, and 2) interim credentials, introduced in October 2008 with the final rule revising regulations for Labor Standards for Registration of Apprenticeship programs (29 CFR part 29). Certificates of completion of apprenticeship are issued by the U.S. Department of Labor (DOL) or a State Apprenticeship Agency. Currently, interim credentials are issued by DOL.

Apprenticeship Certification or Certificate means documentary evidence that:

- ➢ The Office of Apprenticeship has approved a set of National Guidelines for Apprenticeship Standards developed by a national committee or organization, joint or unilateral, for policy or guideline use by local affiliates, as conforming to the standards of apprenticeship set forth in 29 CFR part 29.5;
- ➢ A Registration Agency has established that an individual is eligible for probationary employment as an apprentice under a registered apprenticeship program;
- ➢ A Registration Agency has registered an apprenticeship program as evidenced by a Certificate of Registration or other written indicia;
- ➢ A Registration Agency has determined that an apprentice has successfully met the requirements and demonstrated the acceptable skill levels to receive an interim credential; or
- ➢ A Registration Agency has determined that an individual has successfully completed an apprenticeship.

Apprenticeship interim credential means a credential issued by the Registration Agency, upon request of the appropriate sponsor, as certification of competency attainment by an apprentice. See Appendix 1 for additional background information on Apprenticeship credentials.

Source: Excerpts from Apprenticeship Regulations, 29 CFR part 29, Labor Standards for Registration of Apprenticeship Programs (as amended October 28, 2008).

1.3. Occupational Licenses

Characteristics of occupational licenses include that they typically are:

- ➢ Granted by Federal, state or local governmental agencies;
- ➢ Mandatory in the relevant jurisdiction;

- ➢ Intended to set professional standards and ensure safety and quality of work, such as medical licenses for doctors;
- ➢ Required in addition to other credentials (educational awards, apprenticeship, or certification);
- ➢ Defined by laws and regulations;
- ➢ Time-limited - occupational licenses must be renewed based on meeting on-going requirements to maintain the license; and
- ➢ Violation of the terms of the license can result in legal action.

1.4. Personnel Certifications

A personnel certification indicates that the individual has acquired the necessary knowledge, skills and sometimes personal attributes to perform a specific occupation or skill. The certification process is based on a formal study that has validated the necessary knowledge, skills and sometimes personal attributes that have been assessed (through examinations that have been determined to be fair, valid and reliable) and re-affirmed (re-certification) at a designated interval (such as every three years). The certificate that is given is owned by the certification body and can be taken away from the certified person for reasons of unethical or incompetent behavior after an appropriate due process.

Characteristics of personnel certifications include:

- ➢ Granted by third-party non-governmental agencies - usually associations, and by companies;
- ➢ Intended to set professional standards for qualifications, such as a certification for a crane operator, or a Novell Network Certified Engineer;
- ➢ The standards for certifications are not defined by government laws or regulations;
- ➢ Usually require successful completion of an examination or assessment, which indicates mastery of competencies as measured against a defensible set of standards;
- ➢ Standards are set through a defensible, industry-wide process of job analysis or role delineation that results in an outline of required knowledge and skills
- ➢ Usually require a set amount of work experience or professional/practical experience;
- ➢ Usually must be renewed in some way after a certain time period based on meeting certain requirements for renewal;
- ➢ Voluntary - although state licensure boards and employers may specify certification as part of their requirements; and
- ➢ Violation of standards or requirements can result in suspension or revocation of certification.

1.5. Other skill certificates typically are:

- ➢ Issued after an individual attends or participates in a particular meeting or course (certificate of completion); or
- ➢ Attest to knowledge attainment rather than competency.

2.0 Understanding Credentials: Attributes, Types and Examples

Since credentials come in many different forms and are issued by a wide variety of entities, they defy easy classification. In addition, various credentials have different characteristics and determining the value of specific credentials can also be challenging. For example, in some cases the value is very clear, such as when a credential is required in order to work in a certain industry or occupation (nursing licenses, for example). In other cases, however, the value added from holding a credential is less clear-cut, such as when they contribute to a hiring advantage, higher earnings, enhanced job security, or advancement along a career pathway. This section provides an overview of the most significant characteristics of credentials in relation to the goal of equipping workers with career-enhancing credentials.

2.1. Attributes of Career-Enhancing Credentials

Four attributes of educational and workforce credentials that strengthen the value of credentials to individuals are *industry-recognition*, *stackability*, *portablility* and *accreditation*. Accreditation by an independent quality review body is a valuable attribute, but at present, the majority of certain types of credentials are not accredited.

- **Industry-Recognized:** An industry-recognized credential is one that either is developed and offered by, or endorsed by a nationally-recognized industry association or organization representing a sizeable portion of the industry sector, or a credential that is sought or accepted by companies within the industry sector for purposes of hiring or recruitment which may include credentials from vendors of certain products. Consumer should be aware that in some industry sectors there may be more than one major industry association and that they may endorse or promote different credentials, and that the credentials that are sought by individual companies in an industry can vary by geographic region, by company size, or based on what product or equipment the company uses and needs workers to be able to operate. This is merely to point out that there may not be a single readily identifiable national credential for all industry sectors or occupations. The hundreds of certifications that exist within the information technology (IT) industry are a very good example. There are multiple industry associations, and there are multiple product vendors that offer personnel certifications. The workforce investment system operating in a local area needs to interface with employers to determine what IT credentials are in demand by local employers that are hiring.

- **Stackable:** A credential is considered stackable when it is part of a sequence of credentials that can be accumulated over time to build up an individual's qualifications and help them to move along a career pathway or up a career ladder to different and potentially higher-paying jobs. For example, one can stack a high school diploma, an associate's degree, and then typically obtain two more years of appropriate postsecondary education to obtain a bachelor's degree. An individual can also stack an interim career/work readiness or pre-apprenticeship certificate, then complete an apprenticeship, and later earn a degree or advanced certification. Information on identifying career ladders and lattices and related credentials is

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covered in a later section of this paper, along with examples of some existing industry sectors that are working to identify stackable credentials.

- **Portable:** A credential is considered portable when it is recognized and accepted as verifying the qualifications of an individual in other settings - either in other geographic areas, at other educational institutions, or by other industries or employing companies.

- **Accredited:** The goal of accreditation of educational programs is to ensure that the education provided by institutions of higher education meets acceptable levels of quality. The U.S. Department of Education maintains a website on "Accreditation in the United States" at http://www2.ed.gov/admins/finaid/accred/index.html that provides lists of regional and national accrediting agencies recognized by the U.S. Secretary of Education as reliable authorities concerning the quality of education or training offered by the institutions of higher education or higher education programs they accredit. Students using federal financial aid must enroll in institutions or programs that are accredited by the appropriate regional or national accrediting agency.

  Accreditation exists in the realm of personnel certification but is less common. There are two main organizations that accredit personnel certifications or certificates.

  - The American National Standards Institute provides accreditation of personnel certifications and certificates and maintains a Directory of Accredited Personnel (ANSI/ISO/IEC 17024) Certification Bodies, Applicants and Suspended Certification Bodies available online at: https://www.ansica.org/wwwversion2/outside/PERdirectory.asp?menuID=2 .
  - The Institute for Credentialing Excellence (ICE)/ National Commission for Certifying Agencies (NCCA) provides accreditation of personnel certifications and certificates and maintains a listing of Accredited Certification Programs at: http://www.credentialingexcellence.org/NCCAAccreditation/AccreditedCertificationPrograms/tabid/120/Default.aspx. ICE/NCCA also has recently begun a program to accredit Personnel Certificates, see http://www.credentialingexcellence.org/AccreditationServices/CertificateProgramAccreditation/tabid/392/Default.aspx .

Industry–recognized, portable, and stackable credentials provide a valuable return on investment for workforce system customers, because they allow customers to work towards both short- and long-term employment and career goals.

2.2. Stackability and Portability of Different Types of Credentials

Every career pathway and career ladder is founded on initial attainment of a high school diploma or GED. For adults who do not have either, or obtained them many years prior, assessment and remediation may be needed to ensure they have the necessary academic

fundamentals in literacy, numeracy, English language fluency, and science, as applicable for their chosen career field. Employability skills and soft skills are also necessary prerequisites for work. Once an individual has these foundational credentials, he or she can start to develop specialized skills for an industry and occupation (or sequence of jobs and occupations) and embark on a career path. Hence, individuals often need to accumulate or "stack" a series of credentials in order to build their career path or career ladder over time. Credentials can vary significantly in terms of the degree to which they are industry-recognized, stackable and portable.

2.2.1 Educational certificates and degrees from accredited institutions are typically portable throughout the United States. The stackability of educational awards varies based on the field of study and may not be as simple as first obtaining an associate's degree and then adding two more years to attain a bachelor's degree. However, an associate's degree from a junior or community college may not always be equivalent to the first two years towards a bachelor's degree. For example, some associate's degree programs that are occupation-specific may not always include all of the general education requirements required for full transfer credit to a Bachelor's degree. Also if an individual changes the concentration or major field of study between the time they attain the associate's degree and then go on to earn a bachelor's degree in another major, there may be prerequisites or other core requirements that need to be fulfilled that will require more than two years of additional postsecondary study in order to earn that bachelor's degree.

Educational credentials of various lengths are usually expressed in terms of credit hours. A credit hour is defined by the National Center for Education Statistics as, "A unit of measure representing the equivalent of an hour (50 minutes) of instruction per week over the entire term. It is applied toward the total number of credit hours needed for completing the requirements of a degree, diploma, certificate, or other formal award."

There are limitations on the stackability of educational credit hours. Accumulating credit hours outside of an accredited program leading to a formal educational award may mean that not all of the hours will be counted toward an eventual educational award. In other words, if an individual earns educational credits for various courses at different institutions, not all of the credits may be accepted toward a certain degree - so stacking of educational credits depends on a number of variables, the subject matter, how recently they were earned, whether they fulfill core program requirements, and various other factors that all can impact their potential stackability.

2.2.2 Apprenticeship addresses stackability in several ways: 1) through the introduction of interim credentials; 2) the transition from apprentice status to journeyworker status; 3) through attainment of educational credit for portions of apprenticeship programs; and 4) through attainment of related occupational licenses or personnel certifications as part of an apprenticeship program.

Apprenticeship Interim Credentials. Issuance of interim credentials will be determined by the apprenticeship program sponsor's choice of approach for an apprentice's progression through that program. There are three approaches: competency-based, time-

based, or a hybrid of the two. Program sponsors must identify and define all interim credentials in the program standards that are registered with the Registration Agency. Interim credentials may be issued only for industry-recognized components of an apprenticeable occupation. Therefore, if an apprenticeship program's standards do not include provisions for issuance of interim credentials for specific components of an apprenticeable occupation, the Registration Agency with which the program is registered may not issue interim credentials to apprentices registered with that program.

Interim credentials are issued by the Registration Agency, upon request of the appropriate sponsor, as certification of an apprentice's attainment of competency. Furthermore, the regulations do not require program sponsors to include interim credentials in their program standards, nor do they require sponsors to request that a Registration Agency issue interim credentials to apprentices registered in their apprenticeship programs. The Department also recognizes that some Registration Agencies may find the issuance of interim credentials to be unduly burdensome and beyond their capabilities. Therefore, Registration Agencies, other than the Office of Apprenticeship, may opt not to offer this additional service.

The DOL Office of Apprenticeship has concluded that the revised regulatory framework regarding interim credentials does not detract from the overall goal of the National Apprenticeship System to support and enable apprentices to complete an apprenticeship program. Through the authorization of interim credentials, the National Apprenticeship System recognizes that some industries and occupations are more amenable to an incremental recognition of an apprentice's increasing skills, knowledge, and abilities. In such industries the use of interim credentials can afford multiple opportunities for apprentices to grow and expand their knowledge and their capacity to meet current, new, and emerging industry advances. Use of interim credentials also recognizes the fact that not all apprentices will complete their apprenticeship programs and offers opportunities for recognition of what these individuals have learned. Therefore, interim credentials will also enable apprentices to obtain portable credentials commensurate with the skills and competencies acquired and demonstrated throughout an apprenticeship. Notwithstanding the value of interim credentials, the issuance of a certificate of completion of apprenticeship, and the associated journeyworker status, remains the ultimate goal for the National Apprenticeship System.

Journeyworker Status

Individuals who have completed a Registered Apprenticeship program are often referred to as "journeyworkers." As defined in apprenticeship regulations, journey worker means a worker who has attained a level of skill, ability and competency recognized within an industry as having mastered the skills, abilities and competencies required for the occupation. (Use of the term may also refer to a mentor, technician, specialist or other skilled worker who has documented sufficient skills and knowledge of an occupation, either through a formal apprenticeship or through practical on-the-job experience and formal training.)

Apprenticeship and Occupational Licenses or Certifications

During an apprenticeship or after an individual completes an apprenticeship, he or she may pursue additional certification from another credentialing body. These certifications are not a requirement of Registered Apprenticeship. However, in many construction occupations, such as plumber, electrician, and solar panel installer, in order for an individual to legally practice that occupation, he or she must also be licensed. As part of the qualifications, State licensing laws or regulations often require the individual to demonstrate that he or she has completed a Registered Apprenticeship program by providing a copy of the Certificate of Completion of Apprenticeship issued by DOL or an SAA.

2.2.3 Occupational licenses are required by government entities, typically state regulatory bodies, before an individual is allowed to be employed in and practice a trade, profession or other occupation. Although most occupational licenses are granted by state governments, some are granted by certain Federal agencies. State licenses often are not portable since states tend to have different licensing standards. Some states do have reciprocity agreements to recognize licenses from other states, often only for specific occupations and specific states, but reciprocity is not universal and needs to be determined on a case-by-case basis for each occupational license.

The portability of occupational licenses can be a particular issue for veterans, separating military members and military spouses, as well as dislocated workers who relocate from one state to another. Since licenses are specific to an occupation they are not really stackable, except to the extent that experience in that occupation serves as a prerequisite or a step up to another occupation in a career ladder. However, the new occupation may also require its own occupational license with its own specific requirements. For many occupations, an individual can continue to stack certifications and other training on top of a license. Licensed nurses, for example, can gain additional credentials beyond the initial license. Also, some licenses require annual training as part of continuous learning in order to maintain the license in good standing.

A couple of examples may help to illustrate the circumstances that pertain to occupational licenses. First, there are approximately 65 federally licensed occupational titles, mostly from Federal Aviation Administration and the Federal Communications Commission and these Federal occupational licenses would typically be portable within the U.S. At the state level there are some occupations that are licensed in virtually every state and some that are licensed in only a few states. As the title implies, the occupation of Licensed Practical Nurse is licensed in virtually every state, although the title used in some States is Licensed Vocational Nurse. Home Health Aides on the other hand are licensed in only nine states. There may be slight variations in the licensure requirements among these nine states that have an impact on the portability of the credential among them. However, if they are moving to a state that does not license Home Health Aides, portability will not be a concern. (There are also national personnel certifications available for Home Health Aides.)

2.2.4 Personnel certifications indicate that an individual has acquired the necessary knowledge, skills and sometimes personal attributes to perform a specific occupation/skill. The certification process is based on a formal study that has validated the necessary knowledge, skills and sometimes personal attributes that have been assessed (through examinations that have been determined to be fair, valid and reliable) and re-affirmed (re-certification) at a designated interval. The certificate that is given is owned by the certification body and can be taken away from the certified person for reasons of unethical behavior or incompetence after an appropriate due process.

Certifications issued by national industry or occupational/professional associations are typically portable, although there can be differences in regional economies or employer preferences. In addition, in some cases there is more than one similar association offering credentials in a career field that again may be preferred in different areas or by different employers. Most personnel certifications require work experience and can only be earned by stacking learning experiences and work experiences and then taking a certification examination and submitting documentation of the pertinent work experience.

In addition, personnel certifications often include work experience components that count toward attainment of the certification.

3.0 Tools for Identifying Credentials

The definition of credentials in Section 1 indicated the wide range of different types of skill and workforce credentials. These credentials are also numerous, so it is not possible for an individual jobseeker or a workforce investment system professional to know all of the potential credentials. Furthermore, new credentials are developed and others become obsolete. Therefore, the best way to disseminate information on credentials is through electronic databases that are available online. This section describes the major public sources of such information.

3.1. Educational Programs

There are several useful online tools to identify educational programs available in a geographic area.

- o National Center for Education Statistics—College Navigator site: http://nces.ed.gov/collegenavigator/.
- o ETA's CareerOneStop Short-Term Training Finder: http://www.careeronestop.org/EducationTraining/Find/Short-TermTraining.aspx
- o Career and Technical Education Credentials**:** The Carl Perkins Career and Technical Education Act of 2006 emphasizes programs of study in career clusters and pathways , which link what students learn in school with the knowledge and skills they need for success in college and careers. Career and Technical Education (CTE) career clusters and pathways and their curriculum frameworks provide for curriculum integration and contextual learning opportunities that reflect the career goals and interests of a wide range of learners and ensure that they achieve the standards required to be successful as they transition to

postsecondary education and future careers. The National Association of State Directors of Career and Technical Education Consortium (NASDCTEc) provides information on the 16 CTE Career Clusters on their website www.careerclusters.org. This site contains a number of resources to help promote the goals of the Career Clusters and Pathways initiative, including Plans of Study and Knowledge and Skills Charts. NASDCTEc has recently added related credentials listings to these cluster resources at: http://careerclusters.org/credentials.php.   All listings were reviewed by the Career Clusters leaders and/or the National Advisory Committee members and new credentials were added based on their recommendation. The credentials listed by NASDCTEc are samples of existing credentials and are not meant to be exhaustive listings.

The listings are divided into three primary sections:
- Education and Industry Licenses;
- Education and Industry Certificates; and
- Postsecondary Degree Options.

3.2. Apprenticeship Programs

On the Office of Apprenticeship Sponsors website at http://www.doleta.gov/oa/links.cfm visitors can find information on the occupations and sponsors of registered apprenticeship programs in their state.

3.3. Occupational Licenses

CareerOneStop provides a searchable Licensed Occupations database at http://www.careerinfonet.org/licensedoccupations/lois_keyword.asp?nodeid=16&by=keyword . This online tool contains federal and state-provided information including: Licensing agency name, address, and contact information, including Internet links if available; license description and applicable fees; and examination requirements, if applicable.

3.4. Personnel Certifications

The CareerOneStop electronic tool supported by the Employment and Training Administration provides a Certification Finder tool to identify industry or occupational personnel certifications at http://www.careerinfonet.org/certifications_new/default.aspx. This tool provides information including the certifying organization's name, address, and related Web links; certification description; and certification details such as examination and/or work requirements.   Information about occupational and industry certifications associated with particular industry competency models also is available through the Competency Model Clearinghouse within CareerOneStop, through the Find Resources search tool, at: http://www.careeronestop.org/competencymodel/search.aspx .

3.5. Skills Transferability Tool

CareerOneStop has introduced a new online tool, www.mySkillsmyFuture.org, to assist dislocated workers and others who have work experience but may need to change careers to find employment. A user enters their current or a previous job title to find the closest occupation. The mySkills myFuture tool uses information on occupational competencies, from the Occupational Information Network (O*NET) system, and labor market information to return related occupations that use some of the same knowledge and skills. When the user selects an alternative occupation to explore, the tool then displays for the target occupation related education, training, occupational licenses, and certifications if they exist, as well as local job openings.

4.0 Acquiring and Leveraging Credentials

This section provides an overview of resources to help accelerate credential attainment and accumulate credits and credentials to build on existing knowledge and competencies to attain more specialized or advanced career credentials.

4.1. Credit for Prior or Other Learning or Work Experience

Adult learners often face challenges in obtaining credentials because of competing demands on their time from work, family responsibilities, and continued learning. It can take a long time to accumulate credits and credentials in order to build a career pathway when education and training are being pursued on a part-time or intermittent basis. Another type of assistance that the workforce system can leverage to help individuals attain credentials is to explore all avenues to help them attain credit for prior learning and work experience.

Gaining postsecondary educational credit for prior learning or experience can help individuals earn credentials more quickly and can reduce total tuition or training costs since an individual may not be required to take certain courses. The Council on Adult and Experiential Learning (CAEL) catalogs an array of technical assistance on prior learning assessment resources to support the granting of credit for prior learning or work experience.

National
- **American Council on Education (ACE) College Credit Recommendation Service (CREDIT)** connects workplace learning with colleges and universities by helping adults gain access to academic credit for formal courses and examinations taken outside traditional degree programs. ACE provides reliable course equivalency information to facilitate credit award decisions. Participating organizations include corporations, professional and volunteer associations, schools, training suppliers, labor unions and government agencies.
  http://www.acenet.edu/AM/Template.cfm?Section=CCRS
- **ACE National Guide to College Credit for Workforce Training** publishes credit recommendations for formal instructional programs offered by non-collegiate agencies, both civilian employers and the military.
  http://www2.acenet.edu/credit/?fuseaction=browse.main

<u>Credit by Examination</u>
- **The College Level Examination Program® (CLEP)** gives individuals the opportunity to receive college credit by earning qualifying scores on any of 34 examinations for knowledge acquired through independent study, prior course work, on-the-job training, professional development, cultural pursuits, or internships. http://www.collegeboard.com/student/testing/clep/about.html
- **Advanced Placement (AP) Exams** are a series of tests, initially for AP High School courses with 34 exams in 19 subject areas. http://www.collegeboard.com/student/testing/ap/about.html
- **DSST Credit by Exam Program (formerly known as the DANTES Subject Standardized Test Program).** These exams test knowledge of both lower-level and upper-level college material through 38 exams. DANTES is the Defense Activity for Nontraditional Education Support, designed to assist military personnel in obtaining civilian educational credit for military training. http://www.getcollegecredit.com/
- Excelsior College Examination Program, (formerly, Regents College Exams or ACT/PEP Exams), offered by Excelsior College, New York. https://www.excelsior.edu/Excelsior_College/Excelsior_College_Examinations

<u>Local</u>
- Experiential Learning Assessments: also known as individualized student portfolios or interviews.
- Evaluation of Local Training: program evaluations done by individual colleges of non-collegiate instructional programs.
- Challenge Exams: local tests developed by a college to verify learning achievement.

CAEL also has resources to assist educational institutions in incorporating prior learning to help their students achieve certificate and degree completion. This includes an online Prior Learning Assessment Certificate Program for educational institutions. http://www.cael.org/online_pla_certificate_program.htm

4.2. Using Credential Attainment to Map Career Pathways and Ladders

There are literally thousands of different credentials. As a result, it can be a challenge for the workforce system and its individual customers to identify ways to build a career pathway or career ladder by formulating a plan to accumulate a specific set of stackable credentials. The tools described in the previous section can help identify credentials. This section describes some of the tools that workforce investment professionals operating in regional economies can use to try to document and provide a guide to existing career pathways by using and recording information on occupations and stackable credentials, including approaches that state and local workforce professionals can leverage to increase credential attainment among public workforce program participants.

On-Line Career Competency Mapping Tools: The section on the portability and stackability of credentials described how various credentials can be linked to the framework of an industry competency model to indicate how the credentials might be

sequenced or combined. An industry competency model identifies and communicates industry sector skill needs to the public workforce investment system and its strategic partners in education and economic development. The models identify cross-cutting competencies—sets of knowledge, skills, abilities and attributes—required by workers in an industry. These models clarify the foundational, academic, workplace, and industry technical competencies required to progress up a career ladder or move along a career lattice.

Industry competency models can be a valuable resource for workforce development professionals. Specifically, the models can be used to: 1) identify industry-specific workforce development needs; 2) conduct labor pool analyses; 3) build career paths, ladders, and lattices; 4) develop competency-based apprenticeship programs; and 5) support business human resources services and functions, including hiring, recruitment, writing job descriptions, etc.

There are currently 15 industry competency models, which can be found on the Competency Model Clearinghouse (CMC) at http://www.careeronestop.org/CompetencyModel/. A selection of related credentials are displayed at the bottom of the pyramid graphic depicting the model and certification and curriculum resources can be searched for by industry or occupation under the Find Resources link at http://www.careeronestop.org/competencymodel/search.aspx.

The CMC site also has two online interactive tools that can be used to 1) build customized competency models for regional economies or specific industry sub-sectors, and 2) to build and document career ladder/lattice progressions, including an indication of credentials needed along the way. On the CMC Web site link (under the Build a Model link) the CMC provides two interactive tools: Build a Competency Model and Build a Career Ladder/Lattice.

- **The Build a Competency Model Tool:** Enables workforce development professionals to customize one of the national industry competency models to reflect specific workforce needs in a region. For example, a user can start with the framework for Advanced Manufacturing and customize it to reflect the competencies for manufacturing wind turbines or pharmaceuticals or other specific products. This tool can support the work of state and local policymakers as they design regional workforce development strategies for specific industries. The tool will allow them to work with employers and local training and education providers to design industry-specific workforce development strategies. For example, a California company engaged in wind turbine manufacturing and installation, customized the Advanced Manufacturing Competency Model to reflect the workforce skill needs for that company. Intended to be used within the company, the model was validated by company managers and employees. The model is used for skill gap analysis, as a framework for developing training materials, and targeting training. They also reported that the foundational competencies were useful for performance counseling with employees.

- **The Career Ladder/Lattice Tool:** Enables workforce development professionals to start with a national or customized industry competency model and then employ the Career Ladder/Lattice tool to display the sequence of jobs or occupations within specific careers in that industry. The tool results in a graphic that illustrates the progression and advancement potential in the career ladder/lattice and also contains documentation of the requirements for each job as well as the critical developmental experiences needed to move among them. A sample graphic for a Career Ladder/Lattice within the Energy sector is shown at http://www.careeronestop.org/competencymodel/careerpathway/ReviewCareerPathways/Energy_CPW.pdf . The model itself provides additional detail. This tool can support the work of case managers and other frontline staff as they counsel individuals on the types of training and education they need to advance along a career pathway.

5.0 Current Models of Existing Industry-Recognized Stackable Credentials

Many regional economies have identified targeted industry clusters for which their region has some type of locational advantage. Economic development agencies, educational institutions, and the workforce development system can work together to promote economic growth by preparing skilled workers for industry clusters. Registered Apprenticeship is industry-recognized by its very nature and due to the collaborative manner in which apprenticeships are developed and set up. In addition, associations within certain industry sectors are also working to identify a series or sequence of stackable credentials that can assist in preparing a local or regional workforce for employment in the industry.

Two industry groups in particular are in the forefront of using industry competency models as a framework for identifying a national system of stackable credentials—advanced manufacturing and energy. These are described below for the benefit of local WIBs or One-Stop Career Centers that are targeting workforce development efforts for those industries in their own regional economies. In addition, other regional efforts may be underway, as in the example of Bio-science below, or similar efforts could be started to develop these approaches for other industry sectors

- **Advanced Manufacturing:** An initiative has been undertaken by the Manufacturing Institute to develop career ladders within the manufacturing sector by identifying and endorsing a set of stackable credentials. The Manufacturing Institute has endorsed a Manufacturing Skills Certification System that they intend to be implemented through community colleges to enable participants to advance along a career pathway in manufacturing, beginning at entry level work readiness and employability skills up into specific technical competencies associated with specific types of manufacturing. The system begins with basic skills required for entry-level workers in all sectors of manufacturing, from alternative energy and computers to aerospace and pharmaceuticals. The skills certifications address personal effectiveness competencies, foundational academic competencies, general workplace skills and manufacturing industry-wide technical skills. Entry-level science, technology, engineering and math (STEM) skills are included in the system. See depictions of the career pathways and

stackable credentials at
http://institute.nam.org/page/edu_workforce_skills_cert_implementation.

These certifications fit into the framework of the Advanced Manufacturing Competency Model developed in collaboration with the Employment and Training Administration along with other industry, education, and labor partners. The model is co-sponsored by the Manufacturing Institute, the National Council for Advanced Manufacturing, and the Society of Manufacturing Engineers. The competency model is available within the CareerOneStop Competency Model Clearinghouse, at:
http://www.careeronestop.org/competencymodel/pyramid.aspx?HG=Y.

- **Energy**: The mission of the Center for Energy Workforce Development (CEWD) is to promote efforts to help develop the future energy workforce. As part of that work, CEWD developed the Get Into Energy Career Pathways Model, based on the Energy/Generation, Transmission, and Distribution (Energy) Competency Model which can be accessed at
  http://www.careeronestop.org/competencymodel/pyramid.aspx?NRG=Y.

  The *Get into Energy Career Pathways Model* separates education and training into three categories that align with the tiers of the Energy Competency Model: Basic Training (Tiers 1-3), Industry Fundamentals (Tiers 4-5), and Job Specific Skills and Credentials (Tiers 6-8). Grouping the skills in this way allows for the development of common curriculum and education requirements that correspond to the Get Into Energy Career Pathways model. For example, a technician with successful attainment of Basic and Industry competencies will have the foundation to take additional training for a specific job skill, such as wind or smart grid technologies, providing for a sequence of credentials that build upon each other. See how these relationships are depicted at
  http://www.cewd.org/documents/pathwayswhitepaper.pdf .

  To ensure that educators and training providers are training to the key competencies identified by the industry, CEWD is in the process of mapping existing industry credentials and curriculum to the competencies in the model. By using the Energy Competency Model as the framework for uniform training and development, CEWD can help focus curriculum development to address the specific needs of industry and reduce program overlap and duplication of effort among education and training providers. CEWD's efforts to create a uniform curriculum framework serve to align education and training with the needs of the industry.

- **Information Technology:** Information technology (IT) is the industry sector with perhaps the largest number of associated certifications and other credentials offered by organizations both commercial and non-profit. The sheer number of potential credentials can present challenges for individuals and for staff in the workforce system when trying to identify which IT credentials will be beneficial for certain individuals in specific labor markets. One IT industry organization, the Computing Technology Industry Association (CompTIA) has developed several online tools to assist individuals and staff who work with students and jobseekers to access and make sense of the sphere of IT credentials. At http://www.comptia.org/careers/backtowork.aspx, Getting

America Back to Work (GABTW) is an online tool that is designed to guide individuals through an integrated IT training and certification process all the way through to identification of potential job openings. The GABTW site guides individuals through a four-step process: 1) assessment, 2) training, 3) certification, and 4) placement—providing referrals to relevant information at each stage—including referrals to local One-Stop Career Centers and to other training resources. WIBs are invited to participate with CompTIA in this initiative if IT is an in-demand industry cluster in their regional economy. In addition, CompTIA has a somewhat more technical online resource on IT skills, competencies, and related certifications called the TechCareerCompass, located at http://tcc.comptia.org/.

- **Bio-Science**: The Missouri Economic Research and Information Center is using the industry competency models as resources to guide workforce development initiatives that address skill gaps in targeted industry clusters. In fact, at Moberly Area Community College the models are being used for program assessment and re-development, the information technology faculty used the models to identify gaps in curriculum and course offerings and conducted a skills gap analysis and validation of existing curriculum. In addition, the Missouri Department of Elementary and Secondary Education and Missouri Center for Career Education have used the models for re-development of existing competency profiles for career education instructors and to conduct a validation and gap analysis of measurable learner objectives and task statements for local curriculum development.

  Bio-1 is a workforce development partnership of regional industry groups, businesses, WIBs, educational and research institutions, and government and nonprofit organizations in New Jersey. (See http://www.bio-1stop.org/) The Bioscience Competency Model is used as a resource for creating career pathways in the bioscience industry. Bio-1 is working with educators from K-12 through university levels to create articulation agreements, mentoring programs, internship, and professional development opportunities. The Monmouth County Vocational-Technical Biotechnology Career Academy High School in Freehold, NJ is using the model to inform and evaluate its curriculum. The four community colleges in the region are creating associate degrees that prepare students for immediate career opportunities in pharmaceutical or biotechnology companies or transfer to upper division colleges and universities.

- **State-Level Projects:** In addition to national sector-driven strategies a number of states have undertaken initiatives to increase credential attainment in fields in demand and based on strategic partnerships between the workforce system, employers and educators. One well-documented example is the Oregon Career Pathways initiative. Oregon defines a Career Pathway as a series of connected education and training programs and student support services that enable individuals to secure a job or advance in a demand industry or occupation. Career Pathways focus on easing and facilitating student transition from high school to community college; from pre-college courses to credit postsecondary programs; and from community college to university or employment.

The goal of the initiative is to increase the number of individuals attaining certificates and credentials. The strategy combines innovative course designs that are driven by industry preferences for competency-based curricula and designed around the needs of adult learners for flexible scheduling, contextualized learning, and supportive services.

Career pathway approaches also rely on visual roadmaps or templates to depict the coursework, competencies, skill requirements, and credentials needed for a series of related occupations in an industry sector. Oregon has developed an interactive web-based tool that allows students and workers to chart a career path and identify the necessary educational and labor market credentials necessary to advance along it. The URL for the tool is: http://www.mypathcareers.org/. For more information on Oregon's statewide approach to increasing credential attainment, see the Worksource Oregon website at: http://www.worksourceoregon.org/index.php/career-pathways/128-what-are-career-pathways.

Performance Reports for Reporting Credential Attainment by Program

WIA Title I

ETA 9091 (WIA Quarterly Report): Attainment of Degree or Certificate and Youth Diploma or Equivalent Rate

WIASRD:
- Type of Recognized Credential (WIASRD Item 619). This is required for WIA Adults and Dislocated Workers that received intensive or training services. It is also required for Older Youth.
- Attained Degree or Certificate (WIASRD Item 668). This is required for WIA Older and Younger Youth.
- Date Attained Degree or Certificate (WIASRD Item 669). This is a required field for WIA Older and Younger Youth.

TAA

Trade Activity Participant Report
- Type of Recognized Credential #1 (TAPR Element# 1701)
- Type of Recognized Credential #2 (TAPR Element# 1706)

Registered Apprenticeship

- Interim credentials
- Completers

Community-Based Job Training Grants

Quarterly Grantee Progress Report, Grant Rounds 1 through 4
- Number Received a Degree/Certificate

Quarterly Grantee Progress Report, Grant Round 5 Recipients
- Number Received a Degree/Certificate.
- Type of Degree/Certificate
- Total Degree/Certificates Received