CENTER *for* POSTSECONDARY *and* ECONOMIC SUCCESS *at* CLASP

A Framework for Measuring Career Pathways Innovation:

A Working Paper

Alliance for Quality Career Pathways
a project of CLASP

FEBRUARY 2013 | THE ALLIANCE FOR QUALITY CAREER PATHWAYS

Career Pathways: A Systems Framework

The education and skill levels of our workforce affect economic growth, labor market advancement, and household wealth. However, skill development no longer means simply improving workforce skills at the margin. It means increasing the ability of workers to think critically and apply new skills to ever more complex technology, as well as to demonstrate the ability to learn wholly new skills quickly. In short, workers must have the sort of preparation provided through postsecondary education. This observation has led economist Anthony Carnevale to refer to access to postsecondary education and training as the "arbiter of opportunity in America."[1]

The *Alliance for Quality Career Pathways* is a two-year, state-driven, CLASP-led effort to identify criteria for high-quality career pathway systems and a set of shared performance metrics for measuring and managing their success. The 10 states in the Alliance are leading the nation in their experience with and scale of career pathway efforts to date. These states are Arkansas, California, Illinois, Kentucky, Massachusetts, Minnesota, Oregon, Virginia, Washington, and Wisconsin.

The goal of the Alliance is to provide a common understanding of what high-quality career pathway systems and programs look like, regardless of the targeted industry, occupation, or credentials; the focus population; or the design of the career pathway system or program.[2] To inform the Alliance's development of shared performance metrics, this working paper provides background on the *types* of metrics that can be used in career pathways and *how* they can be used. This component will include metrics that career pathway systems and programs can use across funding streams and educational settings to assess career pathway outcomes for the purposes of both performance measurement and accountability. In addition to supporting a shared performance measurement framework, many of these metrics will be useful as part of a continuous improvement process for career pathway programs and pathway systems, as well as for evaluating these programs and systems.

The Alliance defines **career pathways** as well-articulated sequences of quality education and training offerings and supportive services that enable educationally underprepared youth and adults to advance over time to successively higher levels of education and employment in a given industry sector or occupation.[3] A **career pathways approach** reorients existing education and workforce services from a myriad of disconnected programs to a structure that focuses on the individuals in need of education and training and their career paths. Such an approach provides clear transitions, strong supports, and other elements critical to participants' success. It is not simply a new model; it is a new way of doing business.

Career pathway systems can exist at the local/regional and state levels, bringing together partners that adopt an integrative, transformative career pathway approach.

This project is funded with the generous support of the Joyce Foundation and the Irvine Foundation.

A **local/regional career pathway system** is a partnership among local and/or regional agencies, organizations, institutions, and employers or an industry. It includes specific structural elements such as multiple entry and exit points and supportive services and navigation assistance. The system generally consists of linked and aligned career pathway programs.[4] The partnership follows six key guiding principles:

- Adopt and articulate a shared vision
- Demonstrate leadership and commitment to institutionalizing career pathways
- Ensure that career pathways are demand-driven, focus on sectors/occupations, and deeply engage employers
- Align policies, measures, and funding
- Use and promote data and continuous improvement strategies
- Support professional development

A **state career pathway system** is a partnership of state-level agencies, organizations, and employers or an industry that provides a supportive policy environment for local/regional career pathway systems and programs and promote the quality, scale, and sustainability of career pathways. State partnerships follow similar guiding principles to the local/regional systems.

During this two-year initiative, CLASP and the Alliance states will use a consensus process to develop a framework of quality criteria and shared performance metrics for measuring and managing high-quality career pathway systems (state and local/regional). The scan and career pathway metrics framework described in this paper will inform the shared performance metrics, as will a review of research and interviews with leaders in the Alliance states.

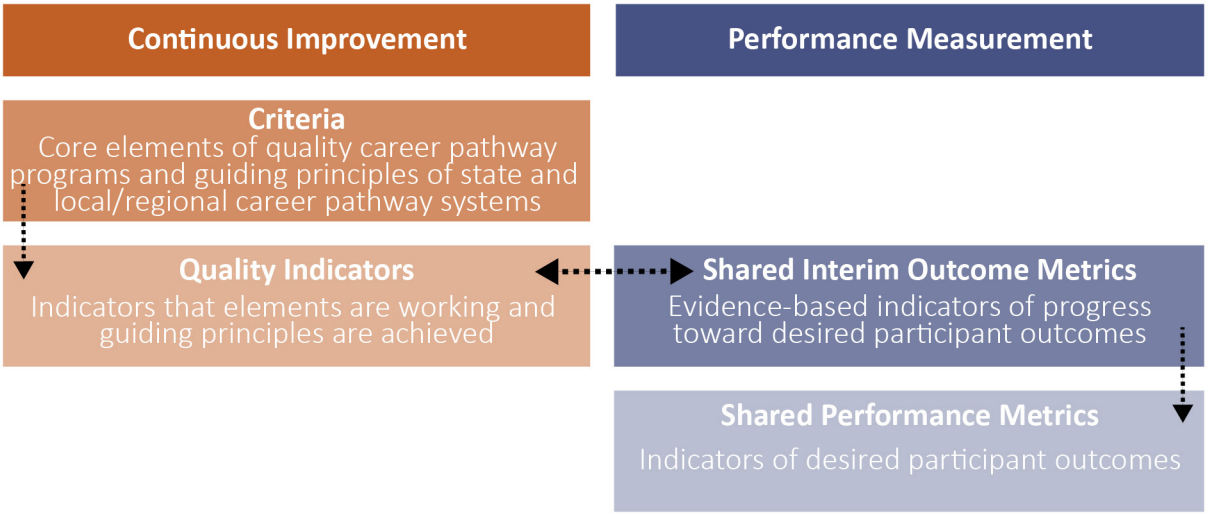
The Alliance Framework of Criteria and Shared Performance Metrics

The Alliance framework will include four components:

1. *Criteria* for high-quality systems and programs
2. *Quality indicators* that signal how well the core elements of systems and programs support the achievement of desired participant outcomes
3. *Interim participant outcome metrics* that mark progress toward achieving desired longer-term outcomes
4. *Performance outcome metrics* that are common across education, training, employment, and other public, private, and philanthropic systems involved in the career pathway system

Although the framework will have a variety of uses, the first two components will be developed for *continuous improvement purposes*, while the last two will identify useful metrics for *performance measurement* (see Figure 1).

FIGURE 1. Four Components of the Alliance Framework of High Quality Career Pathways



Metrics are essential to the Quality Indicators, the Shared Interim Outcomes, and the Shared Performance Metrics. Therefore, CLASP and the Alliance states will develop career pathway metrics to underpin these components of the framework. As currently envisioned, each of these three components may be supported by two or three distinct types of metrics that together constitute the overall **scope** of the career pathway metrics system (i.e., what is measured and for which participants and career pathways).

In addition to defining the various types of metrics, CLASP and the Alliance states will focus on their distinct **uses** (i.e., the purposes to which the metrics are applied). Within the overall Alliance framework as currently envisioned, some metrics will primarily support continuous improvement, while others will support performance measurement, including reporting on results. Some metrics will be designed to form the basis of a system of shared accountability among funding partners.

Finally, the career pathway metrics will reflect the **levels** at which the metrics are used: are they used at the local program level only or also at the local/regional system level? What metrics are used at the state system level? (See *The Alliance for Quality Career Pathways Approach: Developing Criteria and Metrics for Quality Career Pathways - A Working Paper* for a discussion of career pathway programs, local/regional systems, and state systems.) It is likely that the metrics system will need to reflect unique measurement needs at each of these levels. For instance, a state may wish to measure the implementation of its career pathway system strategy by measuring the percent of community colleges adopting contextualized approaches to remedial instruction. A local career pathway system might find measurement of changes in the percent of students enrolled in contextualized remedial instruction to be a more useful indicator of implementation progress.

Table 1 provides a visual representation of the scope or types of metrics, how they might be used (i.e., for continuous improvement or performance measurement), and at what levels (local programs, local/regional systems, state systems).

Table 1. Elements of Career Pathway Metrics

LEVEL: At what system level are metrics being used?	Local Programs		Local/ Regional Systems		State Systems	
USE: How do career pathway progrmans and systems use the metrics?	Continuous Improvement	Performance Measurement	Continuous Improvement	Performance Measurement	Continuous Improvement	Performance Measurement
SCOPE: What is measured, and for which participants? (A-C)						
A. Quality Indicators						
A.1. Pathway system characteristics and design features			X		X	
A.2. Patricipant charteristics	X		X		X	
A.3. Implementation metrics	X		X		X	
B. Shared Interim Outcomes						
B.1. Transition metrics			X		X	
B.2. Interim education and training outcomes	X	X	X	X	X	X
C. Shared Performance Metrics						
C.1. Pathway education and training outcomes	X	X	X	X	X	X
C.2. Labor market outcomes	X	X	X	X	X	X

Scope of the Metrics

This scope of the metrics relates to the types of data they encompass, as well as the extent of the pathways (i.e., the entry points or on ramps of pathways and credentials) and participant characteristics included. These metrics enable the state or local/regional career pathway system to answer key questions: What types of participant outcomes are measured? Can the movement of participants along career pathways that include multiple educational settings and funding sources be measured? How is the implementation of the career pathway system measured?

The quality indicators, interim outcomes, and shared performance metrics components of the Alliance framework may be supported by two or three distinct types of metrics, as outlined below.

A. Quality Indicators: These types of metrics could support the development of one or more quality indicators under the Alliance framework.

- **A.1. Pathway system characteristics and design features:** Though not usually thought of as pathway metrics, basic indicators describing the characteristics of the career pathway system are important tools for policymakers, managers, staff, and participants. They enable these individuals to place career pathway results in context and identify similar pathway systems for comparison purposes. They also can be used to help guide participants to pathway programs that meet their needs. Examples of these descriptors include expected duration, the intended target population, credit availability along the pathway, occupational/industry focus, and the credentials available along the pathway. Users of these metrics also will need data on the key elements of program design for career pathway systems, such as the use of assessments, the role of case management and participant services, and the approach to curriculum design and delivery. Well-developed metrics will include information on these key system design features so that they can shed light on what elements are associated with success.

- **A.2. Participant characteristics:** While participant characteristics are not metrics per se, an understanding of them helps create the context for interpreting the results for outcome-oriented career pathway metrics. Relevant participant characteristics include the percent of low-income participants, the percent with limited English language proficiency, and the percent needing remedial or developmental instruction.

- **A.3. Implementation metrics:** The development of career pathway systems represents an important change in education and training delivery, and it requires bringing to scale innovations in curriculum design, policies, and data collection. This, in turn, depends largely on the ability to coordinate actors at the state and local levels. Collecting data on the implementation of these innovations is part of the tracking of progress. Examples of these implementation metrics include enrollments, numbers of programs, and levels of funding.

B. Shared Interim Outcomes: These types of metrics could represent evidence-based indicators of progress toward desired participant outcomes.

- **B.1. Transition metrics (following participants across education and training funding sources and settings):** In most conventional educational measurement systems, participants lose their association with an education or training entity (e.g., adult education, developmental education, workforce development programs) as they transition from one educational setting to the next. For instance, most postsecondary measurement systems have metrics for all participants but only limited data for participants but only limited data for participants who were enrolled in adult education before enrolling in postsecondary instruction. Because most career pathway systems will require the transition of

participants across funding sources and settings, those systems need metrics that disaggregate results by the funding source or setting in which participants enroll. This will make it possible to observe the subsequent success of these participants.

- **B.2. Interim education and training outcomes for participants:** Collecting data on the interim outcomes for participants in career pathway programs enables instructors, staff, and administrators to gauge participant progress toward credential attainment. They also can determine which interim participant outcomes ("momentum points") are associated with eventual pathway completion. Examples of these interim outcomes include postsecondary enrollments, course completions, skill level attainments, attainment of stackable credentials, and retention.

C. Shared Performance Metrics: These types of metrics might form the basis for measuring participant outcomes on a shared basis.

- **C.1. Pathway education and training outcomes:** Career pathway systems usually track an array of measures of traditional educational outcomes to assess results. Examples of these outcome measures include grade point average, program completion, credential attainment, and diploma or degree attainment. Pathway education and training outcomes relate to completion results for a particular career pathway.

- **C.2. Labor market outcomes:** Career pathways are intended to improve the prospects of pathway completers for gaining employment and increasing their earnings. Thus, measuring these labor market outcomes is essential for gauging success. Examples of labor market outcome measures include the percent of graduates obtaining employment, percent obtaining employment in a related industry or occupation, employment retention, and various measures of earnings, including post-program earnings and earnings gains.

Utilization of the Metrics

Utilization of the metrics relates to how extensively they are used. Are the data used only to support institutional reporting, or are they also used to help improve career pathway programs or systems? What role do these metrics play in evaluating the impact of pathway programs and the local/regional or state pathway system? Under the Alliance framework, two major functions are expected to be supported by the metrics system: continuous improvement and performance measurement. Although not identified as a distinct function in the Alliance framework, a third important function will be evaluation of career pathway programs and systems.

Performance Measurement: State and federal reporting and accountability systems require most programs to collect certain data elements and report specific outcomes that are aggregated at the institutional (e.g., college) level. An example of this would be the performance metrics for colleges receiving funding under the Carl D. Perkins Career and Technical Education Act. However, these data typically are reported at the institutional level only, and not for individual programs of study, so they often fail to illuminate outcomes for specific career pathways. Institutions may also be required to provide program-level (i.e., program of study) participant characteristics and outcome data, either to support overall institutional accountability systems or to support consumer information or regulatory requirements related to student loans or grants. An example of this would be the eligible training provider certification requirements under Title I of the Workforce Investment Act; these require making program-level results for certain metrics available to prospective WIA-funded participants.

These data can be very helpful for understanding the results of specific occupational programs, but career pathways often encompass transitions across multiple programs as defined by these requirements. Thus, program-level reporting alone usually will not provide the data needed to measure career pathway results and support career pathway system accountability. The Alliance framework will include a system of metrics that could be used to support measurement of participant progress and outcomes through career pathways and across funding streams and educational settings, enabling the development of a shared accountability system. This is likely to involve a subset of the metrics as determined by what the Alliance states find most useful and most feasible to implement.

Continuous improvement: Outcome data may be used to support continuous improvement efforts at the level of local/regional or state career pathway systems. A continuous improvement process provides a structured approach to using information to improve participant results. This generally includes a method for identifying and implementing improvements in the way local career pathway programs or local/regional career pathway systems are designed and operated.

A continuous improvement process can also provide a means of engaging additional stakeholders in efforts to improve participant results. Transition studies that examine the factors that contribute to the success of participants in moving from one educational setting to the next, and that identify the points at which participants drop out of a career pathway, are one example of the use of outcome data to support continuous improvement. Under the Alliance framework, metrics that support the implementation of quality criteria are envisioned as elements of a continuous improvement function, rather than for performance measurement or accountability. Of course, metrics developed to support performance measurement are also likely to be of interest for continuous improvement.

Evaluation of impacts: Outcome data are often used to evaluate the impact of career pathway programs and systems (i.e., the difference that career pathway programs and systems make in the results for participants). *Gross impact* evaluation seeks to estimate the impact of the career pathway program or system on its participants. How do results for participants who achieve key milestones along a pathway compare with those of participants who leave a pathway before achieving these milestones? The most ambitious form of evaluation is a *net impact evaluation* that uses outcome data and other information to estimate impact on program completers compared with the results these participants would have attained in the absence of their participation in the pathway system or program. This form of evaluation requires the development of some form of comparison group, either based on a quasi-experimental analysis of participant data or the random assignment of participants to control and treatment groups. An example of an experimental net impact evaluation of career pathway programs using random assignment is the Innovative Strategies for Increasing Self-Sufficiency (ISIS) evaluation.

While evaluation is not separately identified as a function under the Alliance framework, it is an essential undertaking in each of the participating states and is meant to support the other framework components. All of the metrics developed for continuous improvement and performance measurement are likely to be of interest to evaluators assessing program implementation and impact.

Levels at which Metrics Are Used

A final element to consider is the levels at which the metrics are used. This includes the use of metrics at the statewide career pathway system level, the local/regional system level, and the local program level (Table 1). Many of the metrics will be of interest to each level, but each level will also have unique concerns and need metrics that address these concerns. The Alliance conceptual model recognizes the important differences in focus between these levels and

describes key aspects of the relationships between them. Career pathway metrics must recognize the unique concerns at each level.

State career pathway system level: A state that is building a statewide career pathway system will have a strong interest in implementation metrics (e.g., how many local or regional career pathway systems are up and running; how many employers are engaged). It also will be interested in a statewide and regional view of results (e.g., the total number of credentials produced by the local pathway systems; employment and earnings outcomes). States also have a responsibility to interact with various federal reporting and accountability systems, so they will want to relate the career pathway metrics to these requirements in ways that reinforce strategic objectives. States that have a strong interest in career pathway systems will want to develop a system to collect local and regional career pathways program data that can be easily "rolled up" to one state agency for analysis and reporting.

Local/regional career pathway system level: The local/regional career pathway system has many of the same concerns as the statewide system, and it is likely to function as the intermediary between state policy initiatives and the realities of implementing local/regional programs. The local/regional level is also a natural place to focus on continuous improvement. It is at this level that pathway sequences are designed, alignment is secured, and entry and exit points are determined. Most of the engagement of individual employers and support services partners will occur at this level as well. This level will have a strong stake in all of the metrics.

Local career pathway program level: This is the level at which individual pathway components are implemented and refined. Most of these metrics will be collected at this level.

A Scan of Career Pathway System and Program Characteristics and Metrics

This section presents the findings from a scan of career pathway systems, career pathway programs, and career pathway bridge programs in Arkansas, California, Illinois, Michigan, North Carolina, Texas, Virginia, and Washington, as well as statewide career pathway initiatives in Kentucky, Minnesota, Oregon, and Wisconsin (see Table 2).

Some of the systems providing information were state-level career pathway system initiatives and others were local systems or programs, usually situated in community colleges. Some of the information about these systems and programs derives from state-level reports on features and results, including web sites and reports provided by the states. Other information was gleaned from published evaluation studies. All but one of the Alliance states were represented in the scan, at least through the inclusion of one or more examples of local career pathway programs. This scan is not exhaustive (i.e., we assumed that we could not identify many career pathway systems and programs), and it includes only those systems and programs that provided information on their reporting metrics, either to the public or to researchers.

We limited our examination to those pathway programs and systems that include adult learners and that contain sequences of articulated courses leading to certificates or other credentials. It should be noted that these career pathway initiatives constantly evolve in terms of their curricula, courses included, and metrics. Moreover, new pathway programs are being developed constantly. This summary should be viewed as a snapshot of these characteristics at the time of our scan.

Table 2. States Represented in the Scan		
	Alliance States	**Non-Alliance States**
Statewide career pathway initiatives included in scan	• Kentucky, Minnesota, Oregon, and Wisconsin	
One or more local career pathway programs included in scan	• Arkansas, California, Illinois, Virginia, and Washington	• Michigan, North Carolina, Texas
Not included in scan	• Massachusetts	

Scope of the metrics: The scan sheds light on the element of career pathway metrics development. We garnered useful information on the types of metric developed and the types of data collected. These results provide a general sense of the extent of data collection in place for these career pathway programs and systems.

1. **Pathway system characteristics and design features:** Most of the career pathway systems reviewed for this paper collect data on these basic system characteristics:

   » Primary target population (e.g., low-income adults, participants with limited English-language proficiency, disadvantaged youth)

   » Length of the pathway (e.g., less than one year, one to two years, or over two years in duration)

   » Industry focus (e.g., health care, manufacturing, construction)

   » Academic goals, the credential to which the career pathway program leads (e.g., certificate, Associate's degree, Bachelor's degree)

   » Sources of funding (e.g., federal, state, or foundation funding)

Most of the career pathway systems reviewed include information on one or more features of their pathway design. Examples of design features observed include:

» Sequence of education and training offerings: This includes the specific elements of the pathway instruction for a particular occupation or industry sector.

» Skill assessments: This includes industry-approved technical skill assessments, based on industry standards, and state-developed or state-approved assessments, particularly where industry-approved standards do not exist.

» Supportive services: This includes child care, transportation assistance, and tutoring.

» Case management: Sometimes also referred to as proactive advising, this can assist participants in identifying their needs for supportive services, and it can help participants arrange for access to those services.

- Employer involvement: This included efforts to encourage an active role for employers in pathway design and support and in the assessment of participant competencies.

2. **Participant characteristics:** We observed some participant characteristics data collected by the career pathway systems:
   - Percent low-income: Most of the pathway systems reviewed target lower-income adults and collect data on this characteristic.
   - Other characteristics: Most of the pathway systems collect data on other participant characteristics that are relevant to targeting and assessing results (e.g., the percent of participants requiring remediation, percent with English language deficiency).
3. **Implementation metrics:** Implementation metrics used by career pathway systems reviewed included:
   - Enrollment: Many include a measure of the change in the number of participants enrolled in career pathway or bridge programs from one year to the next.
   - Pathway programs in use: Most include a measure of the change in the number of career pathway programs or bridge programs from year to year.
   - Funding level: Many include the change in the amount or percentage of funding devoted to career pathways or bridge programs from year to year.

   Implementation metrics that were not seen in the scan but could be considered include:
   - Number of participants who use various support services and other program features (e.g., case management, mentoring)
   - Number of employers engaged in pathway design and delivery
   - Adherence to program design standards set by the state
   - Market penetration (e.g., percent of developmental education courses incorporated into a career pathway)
4. **Transition metrics (following participants across education and training funding sources or settings):** Career pathway initiatives in Minnesota, Washington, and Wisconsin have undertaken "pipeline" studies that examine the transitions of adult education, ESL, and developmental education participants from these settings into and through postsecondary programs.
5. **Interim education and training outcomes for participants:** The pathway systems and programs reviewed include a range of interim education and training outcomes. Most report on educational level advancement for adult participants, which is a required measure for Adult Education programs. Many also reported on the following interim outcomes:
   - Passing grades: The number and percent of participants who obtain a passing grade in a bridge course or developmental education course in the pathway
   - Skill gains: The number and percent of participants who attain the intended reading, writing, or mathematics levels (or gains targets) based on comparison of pre and post-program assessment

results. Metrics of this type are required for Adult Education and for WIA youth programs.

- Postsecondary enrollment: The number and percent of participants enrolling in one or more credit-bearing postsecondary courses. This metric is similar to the skill-gains requirement for Adult Education and WIA youth programs, but those do not require entry into credit-bearing courses.
- Academic course completion: The number and percent of participants obtaining a passing grade in one or more college-level academic courses within a postsecondary program of study
- Postsecondary program retention: The number and percent of participants returning for the second semester of a postsecondary program. Many also report on those returning for the third semester.

6. **Pathway education and training outcomes:** Measures of pathway education and training outcomes being used by the career pathway systems we reviewed include:

   - Program completion: Most track the number and percent of participants completing a career pathway program.
   - Postsecondary program completion: Many report on the number and percent of participants completing a postsecondary program and obtaining a credential.
   - Grade Point Average: Nearly all report on the cumulative GPA of participants.
   - Apprenticeships: Most report on the number of participants completing a registered apprenticeship program. (Under WIA and Adult Education, entering an apprenticeship program also counts as entered employment.)
   - Short-term programs: Nearly all report on the number of participants who complete a short-term vocational program.
   - Technical diploma: Nearly all report on the number of participants who obtain a one-year or two-year technical diploma.
   - Associate's degree: Nearly all report on the number of participants who obtain an Associate's degree in a vocational or academic transfer program.
   - Postsecondary program completion: Most report on the number of participants who complete at least one postsecondary program of any type.

   Technical skill attainment is a required measure under Perkins postsecondary programs, as is receipt of an industry-recognized credential, certificate, or diploma. Attainment of a degree or certificate is a required measure for WIA youth programs, as well as for WIA adult programs in states where the common measures have not been adopted.

7. **Labor market outcomes:** The career pathway systems in our review use several types of labor market outcomes:

   - Employment: Nearly all report on the number and percent of postsecondary completers who obtain employment. This is a required measure for Adult Education, Perkins postsecondary programs, and WIA youth, adult, and dislocated worker programs.

- Program-related employment: Many report on the number and percent of postsecondary program completers who obtain employment in an industry or occupation related to the postsecondary program.
- Employment retention: Some report on the number and percent of postsecondary program completers who retain employment. This is a required measure for Adult Education, Perkins postsecondary programs, and WIA adult and dislocated worker programs.
- Earnings gains: Some report on the average earnings gain for postsecondary program completers who obtain employment. A few report on longer-term earnings gains at 18, 24, or 36 months. WIA adult and dislocated worker programs must report on average earnings for the second and third quarters following exit but not on earnings gains.
- Full or part-time employment: A few report on full- or part-time employment of graduates.

Utilization of the metrics: Based on the materials reviewed in our scan, it was not possible to assess the purposes for which the career pathway systems or programs use the metrics. Data may be collected by career pathway systems or programs for performance measurement/accountability and reporting purposes, to support continuous improvement, or for both purposes. Based on how some of the narrative reports we reviewed report outcomes, the tendency seems to be to collect data primarily for reporting and performance accountability purposes, rather than as a means of supporting continuous improvement. However, this is difficult to determine in every case, given the limited nature of the information we collected. CLASP interviews with Alliance states conducted after the scan, in late 2012-early 2013, reveal that many are using metrics for continuous improvement purposes to some extent.

Ideally, career pathway systems should collect relevant information from each of the scope categories described in this paper, and they should utilize it to support all of purposes outlined. The box provides sample questions that state and/or local/regional partnerships may wish to pose to get a better sense of the effectiveness and quality of their career pathway effort and that they can incorporate into a reporting or accountability plan, a continuous improvement effort, and or an evaluation.

BOX: Examples of What to Ask of Your Data to Measure Quality, Progres, and Outcomes

The following are illustrative questions that state and local/regional partners may pose, organized by types of data and the level of the career pathway effort.

A. Quality Indicators

A.1. Pathway system characteristics and design features

- What design features have been implemented in our local career pathways system? How different is this from the previous methods for instruction for these occupations? (Local system and program level)
- What participants are we targeting with this career pathway?

A.2. Participant characteristics

- Have career pathway programs attracted the participants they are targeting? (Local system level)
- To what extent do the pathway results represent an improvement, accounting for differences in the participants enrolled? (Local system and program levels)

A.3. Implementation metrics

- How many institutions in our state have adopted key pathway design features? (State system level)
- What steps can be taken to diversify the funding base for our pathway initiatives? (Local and state system levels)

B. Shared Interim Outcomes

B.1. Transition metrics

- How do outcomes for Adult Education participants compare with those of other participants on this pathway? (Local and state system levels)
- What design features seem to have the greatest impact on moving participants across educational settings? (Local and state system levels)

B.2. Interim education and training outcomes

- What are the interim outcomes for participants along this pathway, and have those outcomes improved over time? (Local system level)
- What interim outcomes are the best predictors of subsequent success for this pathway? (Local system and program levels)

C. Shared Performance Metrics

C.1. Pathway education and training outcomes

- Are there outcome goals for career pathways, and are these being met? (Local system level)
- What changes can we make in instruction or service provision that will improve the chances for each participant to complete a major credential along the pathway? (Local system and program levels)

C.2. Labor market outcomes

- How is this career pathway contributing to improvement in labor market outcomes for this region? (Local system level)
- Do these pathways result in higher earnings for completers, accounting for other participant characteristics? (Local system and program levels)

Conclusion and Next Steps

This working paper examines three elements of career pathway metrics development and provides an overview of what state and local/regional career pathway systems have done in relation to those elements. Our scan provides an impression of current practices but not a systematic description. We still seek answers to several questions in order to ground the Alliance in a set of realistic, implementable, shared performance metrics:

- We need more information on what data state and local career pathway systems are collecting and what metrics they have developed based on those data. We also need to learn how state and local career pathway systems are using the metrics they have developed. To what extent have efforts moved beyond basic accountability reporting to encompass continuous improvement and program evaluation?
- We need to understand more about what states and local career pathway systems feel are the most important missing elements of a comprehensive measurement system. Does the framework of metric elements outlined in this paper capture the essential components? Which elements should have the highest priority for development, among those that are currently not available?
- How close are states and local career pathway systems to implementing a measurement capability that is appropriate for career pathways that include multiple educational settings and funding sources? What progress are they making in developing the capacity to follow participants over time and across institutions?

This working paper provides an overview of what state and local pathway initiatives have been collecting and reporting. A large number of additional metrics could be collected and reported about these pathways, within each of the scope categories included in our analysis. The Workforce Investment Act Titles I and II and the Carl D. Perkins Career and Technical Education Act have their own sets of performance metrics for federal reporting and accountability. Appendix 1 provides an outline of the major features of current federal requirements for performance measurement, reporting, and accountability, including the required measures.

In addition, several voluntary systems for performance measurement exist in the postsecondary domain, including Achieving the Dream, the Voluntary Framework of Accountability (American Association of Community Colleges), Complete to Compete (National Governors Association) and Complete College America. Appendix 2 provides a summary of the metrics used in these systems. In addition, several states have implemented performance-based systems for allocating some portion of state postsecondary funding. Each of these systems should be taken into account as part of the process for developing metrics for use by the Alliance states.

Our intent is to facilitate a consensus-building process that will result in a set of the most useful metrics for performance measurement, accountability, and continuous improvement. As the Alliance states collaborate to do this, we will work to ensure that the framework incorporates metrics of use to state career pathway systems, local career pathway systems, and career pathway programs; and aligns with metrics being developed through their State Longitudinal Data System and Workforce Data Quality Initiative efforts.

Appendix 1: Federal Performance Standards Tied to Funding Streams					
Accountability Provisions	**Adult Education[5]**	**Perkins Postsecondary Programs**	**WIA Youth**	**WIA Adult and Dislocated Workers**	**TANF**
Employment-related outcome measures	• Entered employment • Retained employment	• Placement or retention in employment	• Placement in employment or education	Common:[6] • Entered employment • Employment Retention • 6 month average earnings	None
Progress in education/ skills-related measures	• Educational gains (levels) • Placement in postsecondary education or training • Receipt of secondary diploma or GED • Met work-based project learner goal (optional)	• Technical skill attainment • Receipt of industry-recognized credential, certificate or diploma	• Placement in employment or education • Literacy/numeracy gains • Attainment of degree or certificate • Younger youth retention	Statutory: • Credential attainment[7]	None
Other outcomes	• Reduction in receipt of public assistance (optional)	• Nontraditional completion		Statutory: • Customer and employer satisfaction	None
Process measures	None	• Nontraditional participation		None	• Work participat-ion (based on eligible activities)

Appendix 1 (continued): Federal Performance Standards Tied to Funding Streams					
Accountability Provisions	**Adult Education**	**Perkins Postsecondary Programs**	**WIA Youth**	**WIA Adult and Dislocated Workers**	**TANF**
Setting performance levels	Negotiated between U.S. Department of Education and states	Negotiated between U.S. Department of Education and states	Negotiated between U.S. Department of Labor and states and between states and local areas	Negotiated between U.S. Department of Labor and states and between states and local areas	Fixed by law; credits earned by states can reduce levels
Incentives	Incentive grants for exceeding negotiated targets under Adult Education and WIA (adult, displaced worker, youth)	None[8]	Same as Adult Education, but must meet at least 90% of target for each measure	Same as Adult Education, but must meet at least 90% of target for each measure	None
Penalties	None; poor performance may put local contracts at risk	Financial sanction if no improvement in 1 year or failure to meet in 2 consecutive years	TA, required corrective action if below 80%, up to 5% financial sanction after 2 years; state sanctions on WIBs	TA, required corrective action if below 80%, up to 5% financial sanction after 2 years; state sanctions on WIBs	Financial sanction and increased mainten-ance of effort requirement; option for corrective action before penalty

Appendix 2: Voluntary Systems of Performance Measurement for Postsecondary Education			
Voluntary System	Voluntary Framework of Accountability (AACC)	Complete College America/ NGA Complete to Compete	Achieving the Dream
Purpose and Scope	"The American Association of Community Colleges (AACC) is the primary advocacy organization for the nation's community colleges. The association represents nearly 1,200 two-year, associate degree–granting institutions and more than 13 million students. The Voluntary Framework of Accountability (VFA) is the first comprehensive national accountability system created by community colleges, for community colleges. The ultimate goal of the VFA is to provide a way for community colleges to examine nationally accepted measures of student progress and completion and to be able to compare themselves with other institutions on these measures."	"Complete College America is a national nonprofit organization working with states to significantly increase the number of Americans with a college degree or credential of value and to close attainment gaps for traditionally underrepresented populations." The National Governor's Association (NGA) Complete to Compete has endorsed the CCA common metrics.	"The Achieving the Dream (ATD) National Reform Network includes nearly 200 colleges, 15 state policy teams, more than 100 coaches and advisers, and more than 20 investors, who have forged a common commitment to a shared agenda for student success while building an understanding of the challenges we'll overcome together."
Measure-ment Focus	"VFA data will detail student progress or leakage points along the academic pathway, highlight student completion and transfer practices, and measure colleges' effectiveness in providing CTE and preparedness."	"Effective information on college completion must be publicly reported, comparable across campuses and states, and consistently measured and collected from year to year. Common metrics help us frame our data collection to be most useful for driving change."	"Achieving the Dream seeks to help more students earn postsecondary credentials, including occupational certificates and degrees. Since community college students often take several years to earn certificates or degrees, Achieving the Dream works with institutions to improve student progression through intermediate milestones."

Appendix 2 (Continued): Voluntary Systems of Performance Measurement for Postsecondary Education			
Voluntary System	Voluntary Framework of Accountability (AACC)	Complete College America/ NGA Complete to Compete	Achieving the Dream
AQCP States	Not Applicable	Arkansas, Illinois, Kentucky, Massachusetts, Minnesota, Oregon, Wisconsin.	The following AQCP states have participated in formal policy work with ATD, but all AQCP states have at least one ATD college: Arkansas, Massachusetts, Virginia, and Washington.
Measure-ment Focus	• % of career-technical education students that complete a program (both credit and non-credit) or earned 90 contact hours and are employed with a livable wage • Median wage growth of career-technical education students • % of ABE/GED students that gained employment	None	None
Education and skills related outcome measures	Six-year outcome measures: • % of students that earned an associate's degree – with and without transfer • % of students that earned an award of less than associate's degree (certificate) – with and without transfer • % of students that transferred to another postsecondary institution, with no degree or certificate • % of students that were still enrolled during the sixth academic year • % of students that left institution without an award and without transfer for those who earned 30 or more semester credit hours, and for those who earned less than 30 semester hours	Six-year outcome measures: • Transfer Rates (2 to 4 year transfer) • Graduation Rates (Full-time, part-time, transfer) • Time and Credits to Degree (by degree type) • Degrees awarded annually (number and change over time)	Work group states piloted expansion of existing IPEDs graduation rates to compute the following for full and part-time students for a six year timeframe: • Earned degree or certificate (with or without transfer) • Transferred without award • Enrolled in year six with at least 30 college credit hours

Appendix 2 (Continued): Voluntary Systems of Performance Measurement for Postsecondary Education			
Voluntary System	Voluntary Framework of Accountability (AACC)	Complete College America/ NGA Complete to Compete	Achieving the Dream
Education and skills-related outcome measures	Non-credit workforce: • Non-credit workforce course enrollments Developmental Education Measures: • % of students referred that attempted their first math, English, or reading developmental education course • % of students referred that completed highest level math, English, or reading developmental education course • % of students referred that completed any college-level course in math, English, or reading • % of students referred that completed all developmental education Adult Basic Education: • % of students that completed ABE / GED • % of ABE/GED students that enrolled in additional education	• Remediation: Entry and Success • Retention Rates • Success in First-Year College Courses • Credit Accumulation • Course Completion	Work group states are also testing the following progress measures: • Successfully complete remedial or developmental instruction and advance to credit-bearing courses • Enroll in and successfully complete the initial college-level or gatekeeper courses in subjects such as math and English • Complete the courses they take with a grade of "C" or better • Persistence from one term to the next

Appendix 2 (Continued): Voluntary Systems of Performance Measurement for Postsecondary Education			
Voluntary System	Voluntary Framework of Accountability (AACC)	Complete College America/ NGA Complete to Compete	Achieving the Dream
Education and skills related progress measures (cont.)	Two-Year Progress Measures: • % of credit hours successfully completed in the first term of the cohort (Fall 2009)* • % of students who reached credit thresholds by end of year two (24=part-time; 42=full-time) • % of students who were retained from fall (term one) to their next academic term or completed a formal award; • % of students who reached year two outcomes as follows: completed certificate or degree, transferred to a 2-year or 4-year institution, or were still enrolled at initial institution; • % of credit hours successfully completed at end of year two*		
Other outcomes	Career-Technical Education outcome measures: • Number of awards in career-technical education • Licensure exam passing rate Non-credit measures: • Number of state/industry-recognized credentials • % of non-credit CTE students that transition from non-credit to credit courses	Data for the measures should be disaggregated by: • Gender • Race/Ethnicity • Income (using Pell Grant eligibility as a proxy for income) • Age groups • Full-time, part-time, and transfer students	Disaggregated results by part-time and full-time status and age at initial enrollment. The Work Group states will begin to analyze college and state success rates based on student factors that historically have affected outcomes: level of academic readiness, income, and ethnicity.

Appendix 2 (Continued): Voluntary Systems of Performance Measurement for Postsecondary Education			
Voluntary System	Voluntary Framework of Accountability (AACC)	Complete College America/ NGA Complete to Compete	Achieving the Dream
Process measures	None	None	Achieving the Dream helps colleges transform themselves according to the principles of institutional improvement through the Achieving the Dream Five-Step Process for Increasing Student Success.
Setting performance levels	In 2011, 58 colleges pilot tested the VFA and rated the measures highly useful for community colleges. In 2012, VFA leaders and AACC will work to encourage as much participation as possible from community colleges across the country, while building the VFA Data Tool to collect, display, and benchmark. The web-based interface ultimately will enable colleges to show their metrics in a uniform way – with the goal of collecting the first round of data in 2013.	To join the Complete College America Alliance of States, a state—in partnership with its colleges and universities—pledges to make college completion a top priority and commits to the following three actions: • Establish annual state and campus-specific degree and credential completion goals through 2020 • Develop and implement aggressive state and campus-level action plans for meeting the state's college completion goals • Collect and Report Common Measures of Progress	ATD colleges commit to improving outcomes for each of the measures, and contribute to the national database.
Incentives	None	Nothing required, but CCA has advocated for performance-based funding under a "Value-added Funding" model.	Nothing tied to outcomes, but ATD colleges receive help in the form of coaching, technical assistance and related supports.
Penalties	None	None	None

Endnotes

1 Carnevale, Desrochers, Standards for What? The Economic Roots of K-16 Reform, Educational Testing Service, 2003.

2 For an overview of the framework, see The Alliance for Quality Career Pathways: Developing Criteria and Metrics for Quality Career Pathways - A Working Paper, CLASP, 2013.

3 Adapted from the Oregon Career Pathways definition; see http://www.worksourceoregon.org/index.php/career-pathways/128-what-are-career-pathways.

4 The Alliance defines a career pathway program as a building block of a career pathway system integrating a set of interventions that are in a specific industry or occupation and are aligned in a pathway leading to marketable, stackable, creditable credentials. See The Alliance for Quality Career Pathways Approach: Developing Criteria and Metrics for Quality Career Pathways - A Working Paper for a more detailed definition.

5 Since July 1, 2012, the entered employment, retention, receipt of secondary school credential, and entry into postsecondary measures are being applied to specific subsets of learners instead of only those learners citing those outcomes as goals; see http://www.nrsweb.org/foundations/NRSChanges.aspx.

6 Nine Alliance states (all except Minnesota) have received waivers to adopt the U.S. Department of Labor common measures. For more information on the common measures for adults and youth and the original categories of measures established by WIA, see U.S. Department of Labor, Employment and Training Administration, Training and Employment Guidance Letter No. 17-05, Common Measures Policy, February 2006; see http://wdr.doleta.gov/directives/attach/TEGL17-05.pdf.

7 Data on credential attainment are collected but not used for accountability purposes.

8 Federal incentive grants no longer include CTE, but the awards can be used for CTE activities if the state wishes.