



SPAC

State Perkins Accountability Congress

State *Perkins* Accountability Congress Final Report

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Introduction

The *Carl D. Perkins Career and Technical Education Act of 2006 (Perkins IV)* details a set of performance indicators for career and technical education (CTE) programs for which all states and local grantees are required to collect and report student and program data. The focus and specificity of these indicators have evolved with each successive reauthorization of the *Perkins* legislation.¹ Changes to the accountability system in *Perkins IV*—including the addition of separate indicators for secondary and postsecondary education and the release of nonregulatory guidance by the Office of Vocational and Adult Education (OVAE), U.S. Department of Education (Department)—have helped refine state measurement approaches and promote more consistent data collection. States now report annually on 13 core indicators of performance and disaggregate results by students' gender, race/ethnicity, and special population status.

While *Perkins IV* has fine-tuned federal accountability expectations, it continues to offer states considerable flexibility in defining measures and data collection methodologies. States have responded by tailoring reporting to address their own, often unique program policies and reporting capacities. The resulting variability has hampered federal efforts to report nationally comparable data on the outcomes of CTE students and to assess the relative success of states in improving state and local program performance. The lack of accurate, reliable data that can be used to quantify the return on federal investment in CTE has raised concerns about the reauthorization of the legislation, particularly given recent cutbacks in federal appropriations. Although current authorizations have held *Perkins IV* funding constant, Congress drastically reduced funding in its FY 2011 Continuing Resolution, and within the Department, Secretary of Education Arne Duncan has warned of the need for state educators to make a compelling, data-driven case to justify increased federal investment.

Stakeholder Involvement

In November 2011, OVAE launched the State *Perkins* Accountability Congress (SPAC), a strategic initiative to foster dialogue about performance measurement among federal staff and state representatives; develop suggestions to inform the Department during reauthorization; and identify issues related to data collection, reporting, and comparability. SPAC membership consisted of the 110 state CTE directors and their secondary or postsecondary counterparts from the 50 states, the District of Columbia, Puerto Rico, U.S. Virgin Islands, Guam, and the Republic of Palau. Representatives met four

¹ The original authorization was the *Carl D. Perkins Vocational and Education Act of 1984 (Perkins I)*. *Perkins I* was reauthorized as the *Carl D. Perkins Vocational and Applied Technology Education Act (Perkins II)* in 1990, the *Carl D. Perkins Vocational and Technical Education Act of 1998 (Perkins III)*, and the *Carl D. Perkins Career and Technical Education Act of 2006 (Perkins IV)*.

times—in November 2011 and March, June, and September 2012—to offer guidance on proposed measurement approaches and address overarching issues that arose during the project.²

To provide expert guidance and help inform SPAC deliberations, a smaller Design Team developed proposals for student population definitions, measurement approaches, and data collection methods. The Design Team included state data and accountability experts nominated by state directors and professional associations, including the National Association of State Directors of Career Technical Education Consortium (NASDCTEc) and the Association for Career and Technical Education (ACTE). Team members worked closely with OVAE staff to (1) identify CTE student populations to serve as a potential basis for measurement; (2) specify options for measurement, including numerators and denominators; (3) detail appropriate methods for reporting data, including time lines and instrumentation; and (4) identify issues or challenges. The Design Team included 44 secondary and postsecondary representatives from state CTE systems who met eight times from December 2011 to December 2012, in addition to attending the four SPAC meetings.³ For purposes of this report, all suggestions are referenced as SPAC suggestions.

A public online information-sharing portal served as a resource for SPAC and Design Team members, as well as interested stakeholders. Users accessed the portal to review current documents, keep abreast of progress, view recordings of virtual meetings, and engage in discussions through an online forum.

Organization of the Report

This report is intended to inform Department efforts to transform *Perkins* accountability requirements by creating a more uniform set of definitions to assess student participation and program results. The SPAC's suggestions are designed to support more meaningful comparisons of results across and within states, as well as help identify equity gaps among students. The report opens by highlighting broad issues that merit Department consideration and presents a set of student thresholds that could be used to identify students at the secondary and postsecondary education levels who should be included in accountability reporting. This section is followed by proposed measurement approaches for the secondary and postsecondary indicators. Charts outlining the components of each measure and related considerations and implications also are included. The report closes by providing additional indicators that may be of interest in assessing student progress and performance in key areas.

² The SPAC collaborated through a series of quarterly virtual meetings to review proposed accountability definitions and measures and to make suggestions to improve the validity, reliability, and comparability of approaches.

³ OVAE hosted two in-person meetings of the Design Team at OVAE's Washington, DC headquarters (in February and August 2012), and six virtual meetings between November 2011 and December 2012.

Overarching Issues

SPAC members identified a set of overarching issues that, while related to the development of a CTE accountability framework, transcended project work. The Department may wish to consider these issues as new legislation and administrative policy guidance are being drafted.

1. New federal legislation may change which programs are eligible for funding. Department guidance is warranted to ensure that states use a common set of criteria to define CTE generally and career preparation programs in particular.
2. A shift to competitive funding may reduce the number of CTE programs within states, which may decrease the number of students included in accountability reporting. Strategies for communicating this information to Congress should be considered so that it does not appear that fewer students are choosing to participate in CTE.
3. Guidance will be needed on whether state reporting should be limited to only those state-approved career preparation programs that are eligible for federal funding or be extended to include all CTE programs, including those not eligible for federal support.
4. If funding is to be restricted to qualifying consortia, the Department will need to clarify how accountability reporting should occur (i.e., at the consortium, individual agency, or institution level) and how performance targets and levels should be calculated.
5. Students may drop out of high school or leave postsecondary education before reaching any designated minimum threshold of CTE participation to be included in *Perkins* accountability reporting. Consideration should be given to whether, and if, these students should be addressed in the accountability framework.
6. Given that benefits of CTE participation accumulate over time and may not be immediately evident, consideration should be given to whether, and if so, how, indicators and measures might account for the longitudinal aspects of students' educational experiences.
7. The SPAC expressed interest in retaining technical skill attainment as an indicator for secondary education programs. Opinions differed as to whether grantees should negotiate a level of performance and be held accountable for making annual improvements on the indicator, or should simply report their progress in making performance improvements.
8. To ensure that measures produce reliable data, the Department might wish to establish standards for data collection, for example, by establishing minimum response rates for student follow-up using surveys or administrative record matching.

Student Thresholds

The SPAC suggested that any future *Perkins* accountability framework hold states accountable for the outcomes of students who complete at least a minimum level of CTE course work. Members discussed the possibility of including all students who have contact with CTE when reporting performance results, but agreed that assessing the outcomes of students who had limited contact with a program could potentially inflate the number of students who participate in CTE course work as well as obscure the effect of substantial CTE participation on students.

Students who achieve a minimum threshold of participation in course work within CTE programs would be eligible for performance reporting.⁴ This report refers to students who meet a suggested threshold as “accountably enrolled.”

Secondary Threshold

The following section presents the SPAC’s suggested secondary threshold and related agreements, options, and considerations.

Secondary Threshold: Students who completed at least 50 percent of a state-approved career preparation program by the end of the reporting year.

Percentage of program completed

SPAC members suggested standardizing measurement by basing the threshold on the percentage of a state-approved career preparation program that a student completes during high school. This approach accounts for differences in how states assess student participation in programs, given that some base decisions on the number of courses a student completes, some on the number of credits or Carnegie Units a student earns, and some on the volume of standards a student achieves. The SPAC agreed that using percentage of program completed is also consistent with some states’ efforts to define CTE program progress based on students’ attainment of standards and competencies rather than on completion of course work based on seat time or clock hours.

The SPAC suggested that students who completed “at least 50 percent” of the state-approved career preparation program would achieve the threshold. Once students achieved the threshold, they would be eligible for inclusion in the accountability system regardless of whether they were enrolled in CTE course work during the reporting period. For example, a high school student who achieved the CTE threshold in her junior year and did not subsequently enroll in CTE course work during her senior year would still be eligible for accountability reporting. Members also considered using “completion of at least 50 percent

⁴ The threshold serves as the starting point for the denominator for each indicator (although additional qualifications may apply). For example, the denominator for an indicator may include students who met the threshold and who did not reenroll in postsecondary education.

with enrollment in the next course in the program sequence,” but they determined that because data are not analyzed until the end of the reporting year, this approach would not offer additional information.

Members discussed the possibility of raising the threshold to include those students completing “more than 50 percent” of a career preparation program, due to concerns about programs of fewer than three sequenced courses. For example, a student enrolling in a two-course sequence would achieve the threshold level after taking just the first course in the sequence. Members decided to retain the criterion of students completing “at least 50 percent,” with the caveat that states be permitted to establish their own threshold level for career preparation programs of only two courses in a sequence.

Program content

The SPAC agreed that only technical course work should apply when assessing whether students had achieved the CTE threshold. While academic course work might be considered an integral part of a CTE program or program of study (POS), this course work would not be considered in determining whether a student was accountably enrolled.

Timing

The SPAC agreed that the reporting year should be aligned with the reporting year that each state defines for its *Elementary and Secondary Education Act (ESEA)* reporting requirements. Adopting this approach supports states in making meaningful comparisons between students who achieve threshold levels of CTE course taking and those participating in other types of educational programming.

Members also suggested that the timing of reporting for the Consolidated Annual Report (CAR) be aligned with the *ESEA* reporting schedule. Currently, states must report their *Perkins*-required CTE data to the CAR by December 31st of each year, while *ESEA* data are submitted through *EDFacts* and are due by January 31st of the following year.⁵ Design Team members contended that because most of the secondary *Perkins* indicator results are reported through *EDFacts*, aligning the two submission time lines would be more efficient. With the implementation of state longitudinal data systems, standalone data systems, especially for K–12, are increasingly being consolidated into *EDFacts*. The alignment of reporting time lines would support more efficient federal data reporting by states.

The SPAC agreed that the alignment between *ESEA* and CAR reporting should include the same students in a given reporting year (e.g., if the *ESEA* reporting year is for 2011–12, then CAR reporting should include students enrolled in that period). It is recognized that for particular indicators, such as postsecondary enrollment, the reported student performance will include the previous year’s students. Reporting on the same students would allow more reliable comparison of outcomes for CTE students and the general student population.

⁵ *EDFacts* is a U.S. Department of Education initiative that centralizes performance data supplied by K–12 state education agencies with other Department data assets to support better analysis and use in policy development, planning, and management.

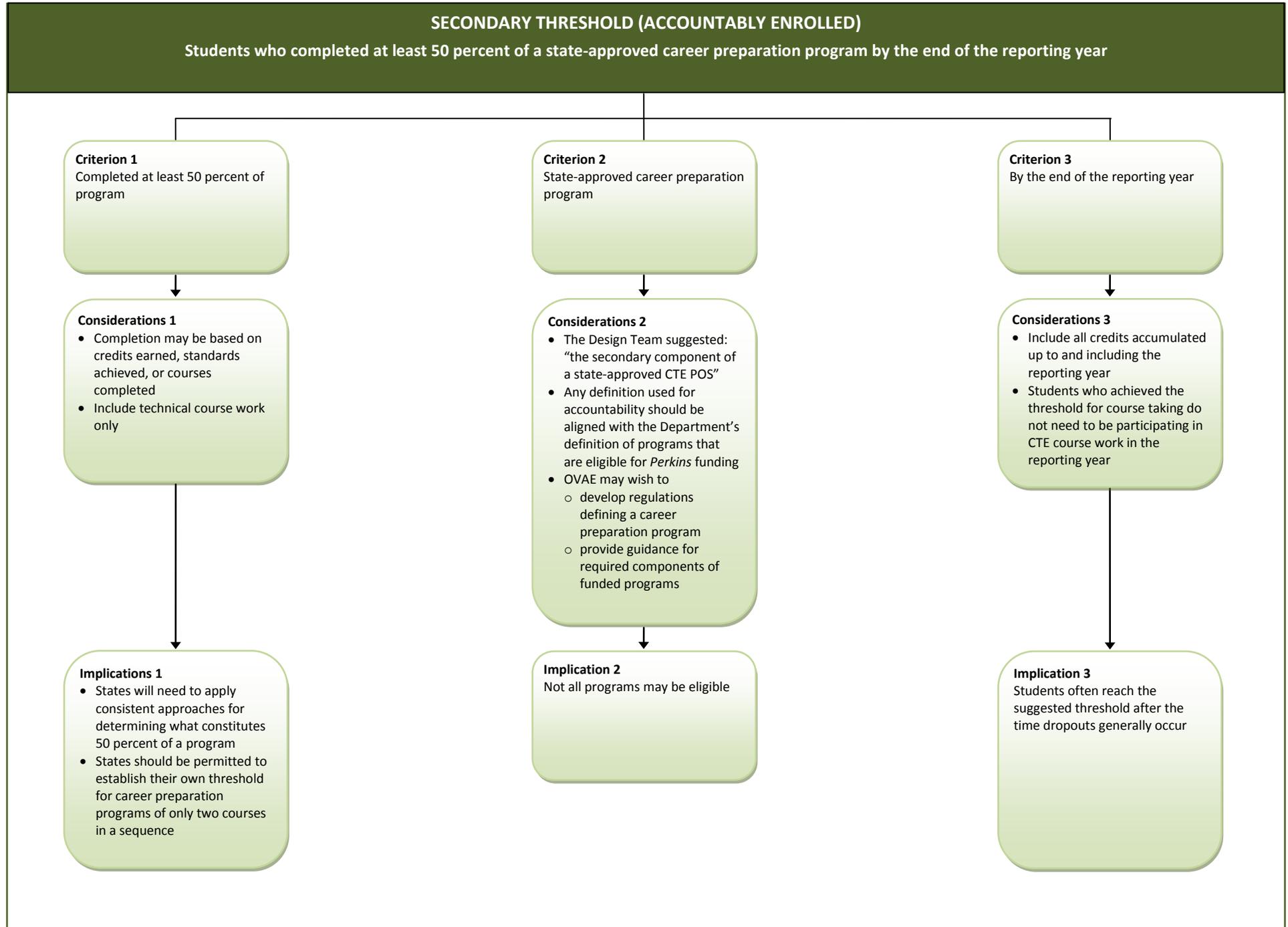
Career preparation programs

The SPAC used the Department's *Investing in America's Future: A Blueprint for Transforming Career and Technical Education (Blueprint)* as a starting point for its discussion of a career preparation program.⁶ Members suggested defining a career preparation program offered within a high school as "the secondary component of a state-approved CTE POS" and suggested that any definition of a career preparation program in the accountability framework be aligned with the Department's definition of an eligible program. If funding is limited to POS, then the definition above will ensure that accountability and funding are aligned. If eligible programs are defined using other parameters, then the definition of a career preparation program should be aligned with those parameters. Ultimately, the SPAC advocates that states be accountable for the student populations they are funded to support.

Scope of student involvement

The SPAC discussed whether the threshold definition should be applied to only those secondary students in career preparation programs that are eligible for federal funding. Some members were concerned that this definition would exclude students participating in CTE programs that, though not eligible for *Perkins* funding, still engaged a substantial number of students. The SPAC suggested more discussion on this issue after Congress and the Department identify accountability requirements in reauthorization. Anticipating further dialogue, the SPAC suggested that the Department consider using the secondary threshold for accountability purposes and also reporting student participation in CTE overall. This would allow states to negotiate performance targets for students who have had a more substantial interaction with CTE, while still capturing the total number of students participating in CTE courses. Members also noted the need for balance between what is required for accountability purposes and policymakers' desire for additional data.

⁶ See page 13 for further discussion of the *Blueprint*. U.S. Department of Education. (2012). *Investing in America's Future: A Blueprint for Transforming Career and Technical Education*. Washington, DC: Office of Vocational and Adult Education. Retrieved June 18, 2012, from <http://www2.ed.gov/about/offices/list/ovae/pi/cte/transforming-career-technical-education.pdf>.



Postsecondary Threshold

The following section presents the SPAC's suggested postsecondary threshold and related agreements, options, and considerations.

Postsecondary Threshold: Students who earned at least 12 cumulative CTE credits or the equivalent in a state-approved career preparation program by the end of the reporting year or completed a state-approved career preparation program of fewer than 12 credits or the equivalent by the end of the reporting year.

Cumulative credits⁷

The SPAC suggested using a threshold of “at least 12 credits or the equivalent” for career preparation programs of 12 or more credits and a threshold of “complete the entire program sequence” for any career preparation program consisting of fewer than 12 credits or the equivalent.

SPAC members requested that the explanation of the threshold include language that clarifies that the term “equivalent” includes clock hour programs and other types of programs that are not based on credits or credit hours. The SPAC also suggested that the Department support the use of equivalencies through written guidance. Members noted that the Department’s recently developed reference guide regarding credit hours may be a resource.^{8,9}

Maximum time to earn credits

The SPAC considered whether to limit the number of previous years a state would examine to determine if a student has earned 12 cumulative credits or the equivalent. For example, if a state is assessing students’ eligibility in the 2012–13 reporting year, it could look at the reporting year and all previous years of available data, or it could review data for the reporting year and a specific number of prior years. The issue was raised because states currently use different limits: some look back as far as their data allow, while others review only two to three years of recent data.

Options

1. *Establish maximum number of years to review data for required number of credits or the equivalent*—The majority of members advocated establishing a maximum number of years, citing concerns about the viability of older credits toward current degree

⁷ This report uses “credits” to represent “credits or the equivalent.”

⁸ U.S. Department of Education, Office of Postsecondary Education. (2010, October 29). Program Integrity Issues. *Federal Register*, 75(209). Retrieved May 7, 2012, from <http://www.gpo.gov/fdsys/pkg/FR-2010-10-29/pdf/2010-26531.pdf>.

⁹ U.S. Department of Education, Office of Postsecondary Education. (2011, March 18). *Guidance to Institutions and Accrediting Agencies Regarding a Credit Hour as Defined in the Final Regulations*. Retrieved May 7, 2012, from <http://ifap.ed.gov/dpcletters/attachments/GEN1106.pdf>.

programs and a desire for standardization. Some members, however, indicated that data are analyzed locally in their states, and strong federal guidance and requirements may be needed to standardize time lines.

2. *Allow states to review as many years of data as are available*—Several members preferred to use all the data available to their states, although they indicated their willingness to apply a limit if needed. Their concerns included variability in how colleges and states currently review data, as well as the desire to include part-time students who may take longer to reach the 12 credits or equivalent threshold.

Representatives from Florida and Texas analyzed their state data to determine how many students met the threshold in the 2010–11 reporting year and how many students were added each year when reviewing four years of data (figure 1). For these two states, looking back two years prior to the threshold captured the majority of students who met the suggested threshold. While the analyses were helpful during the discussion, the SPAC did not suggest a specific year limit. Options ranged from three to six years prior to the reporting year.

Figure 1. Number of “Accountably Enrolled” CTE Students (12 + Hours) 2010–11 Cohort Cumulative and Year-to-Year Increases in Identified Students: From 2010–11 to 2006–07

Credit Type	2010–11	Plus 2009–10		Plus 2009–10 & 2008–09		Plus 2009–10, 2008–09, & 2007–08		Plus 2009–10, 2008–09, & 2007–08, & 2006–07					
	No. Acct Enrolled	No. Acct Enrolled	% Cum Increase from 2010–11	% 1 Year Increase from 2010–11	No. Acct Enrolled	% Cum Increase from 2010–11	% 1 Year Increase from 2009–10	No. Acct Enrolled	% Cum Increase from 2010–11	% 1 Year Increase from 2008–09	No. Acct Enrolled	% Cum Increase from 2010–11	% 1 Year Increase from 2007–08
Florida Community Colleges													
CTE & Academic Credits	44,038	69,649	58.2%	58.2%	79,085	79.6%	13.5%	81,735	85.6%	3.4%	82,830	88.1%	1.3%
CTE ONLY Credits	37,704	58,627	55.5%	55.5%	65,809	74.5%	12.3%	67,467	78.9%	2.5%	67,977	80.3%	0.8%
Clock Hour	7,715	10,460	35.6%	35.6%	10,635	37.8%	1.7%	10,662	38.2%	0.3%	10,676	38.4%	0.1%
Texas Community Colleges and Technical and State Colleges													
CTE & Academic Credits	147,729	198,443	34.3%	34.3%	210,363	42.4%	6.0%	215,966	46.2%	2.7%	219,591	48.6%	1.7%
CTE ONLY Credits ¹	62,559	91,142	45.7%	45.7%	97,087	55.2%	6.5%	97,087	55.2%	0.0%	97,087	55.2%	0.0%

Source: Florida Community College Student Database and Texas Higher Education Coordinating Board.

¹ Texas: No separate technical hours for 2007, 2008, partial hours for 2009.

Current enrollment in CTE

The SPAC recommended that current CTE enrollment not be a requirement for threshold eligibility. If a student has earned the required 12 credits or the equivalent in the time allowed and did not earn any of those CTE credits or the equivalent in the reporting year, he or she should be considered as having met the postsecondary threshold. This suggestion applies whether the decision is made to require states to look back a specific number of years or as far as their data allow.

This approach acknowledges that students may take only general education course work in a term or year as part of their POS, for example, students who have already completed their CTE course work and who took only general education course work in the reporting year to meet the requirements of their program.

It also will address situations where students continue in postsecondary education and do not earn more CTE credits or the equivalent over time. If a limit is set on the number of years to review for threshold eligibility, those students will eventually be ineligible for the threshold once their CTE credits or the equivalent are older than the maximum number of years that states may examine.

General education credits

The SPAC suggested including only technical course work credits or the equivalent when assessing whether a student has reached the threshold. Members noted that although POS—other than very short-term programs—are designed to incorporate both CTE and general education courses, including general education credits could result in some students reaching the threshold without taking much or any CTE course work.

Developmental education

The SPAC suggested excluding credits and the equivalent earned in developmental courses when assessing credits for the threshold. Many developmental courses do not confer college-level credit that can be applied to an award.

Credit awarded in high school

The SPAC identified several separate categories of students who may have earned credit while in high school and suggested they be included or excluded from consideration for the postsecondary threshold as shown below.

Include

- Students who earned part or all of the required 12 cumulative credits (or the equivalent) while in high school, have left high school, and are enrolled in a postsecondary institution in the reporting year. Students must have earned at least one CTE credit at some time while in postsecondary education, although they may be enrolled in the same or another POS. College-level credits or the equivalent earned while in high school should be considered when assessing whether a student enrolled in postsecondary education has reached the threshold.

Exclude

- Students who are attending high school during the reporting year and who have earned part or all of the required cumulative 12 credits or the equivalent. SPAC members agreed that postsecondary credits or the equivalent earned in high school should be considered only after a student has exited high school and entered a postsecondary institution to avoid having the student in both the secondary and postsecondary threshold in the same reporting year.

- Students who earned all of the required 12 cumulative credits or the equivalent while in high school, have left high school, and are enrolled in a postsecondary institution in the reporting year immediately following their graduation, but who did not earn any postsecondary CTE credits in the reporting year. The SPAC suggested that while students should not be required to be in the same POS in postsecondary, they should have earned CTE credits in the reporting year if they enrolled in postsecondary education in the year following graduation from high school.

POSTSECONDARY THRESHOLD (ACCOUNTABLY ENROLLED)

Students who earned at least 12 cumulative CTE credits or the equivalent in a state-approved career preparation program by the end of the reporting year or completed a state-approved career preparation program of fewer than 12 credits or the equivalent by the end of the reporting year

Criterion 1

- Earned at least 12 CTE credits/equivalent OR
- Completed all credits of a program of fewer than 12 credits

Considerations 1

- CTE credits/equivalent only: Do not consider general education or developmental education credits/equivalent
- Credit equivalency: Design Team suggested written guidance
- High school credit: Include
 - credits/equivalent earned in high school if student has left high school and enrolled in postsecondary in CTE
- High school credit: Do not include
 - credits/equivalent earned in high school if student attended high school in the reporting year
 - credits/equivalent earned in high school if student has left high school and enrolled in postsecondary but not earned at least one CTE credit in reporting year immediately following graduation from high school

Criterion 2

State-approved career preparation program

Considerations 2

- Design Team suggested postsecondary component of POS
- OVAE may wish to
 - develop regulations defining a career preparation program
 - provide guidance for required components of funded programs

Implication 2

Not all programs may be eligible for Perkins funding or to be included in accountability reporting

Criterion 3

Cumulative credits/equivalent by the end of the reporting year

Considerations 3

- Design Team suggested two options:
 - A. Establish maximum number of years to look back for cumulative credit or equivalent OR
 - B. Review all available years of data
- CTE enrollment in reporting year: Not required (unless student earned all 12 credits/equivalent in high school, immediately entered postsecondary, and did not enroll in CTE)

Indicators

In November 2011, OVAE charged the SPAC with providing feedback on six performance indicators for secondary and postsecondary education that were identified as a high priority for *Perkins* reauthorization (table 1). In keeping with existing practice, states would negotiate performance levels for each indicator with OVAE, and local consortia would do so with their state.

In April 2012, the Department released *Investing in America's Future: A Blueprint for Transforming Career and Technical Education (Blueprint)*.¹⁰ The *Blueprint* outlined a set of indicators to promote *Blueprint* goals that overlapped with many of those addressed in SPAC work. Although the *Blueprint* did not address students' rate of persistence in postsecondary education, it did identify a subset of CTE program participants who possess unique characteristics or special needs. It called for disaggregating program data on these students to help focus attention on closing gaps and reducing outcome disparities.

Table 1. Potential Performance Indicators

Indicator	SPAC	Blueprint
Enrollment for subpopulations in CTE		✓
Secondary graduation rate	✓	✓
Rate of secondary enrollment in postsecondary education	✓	✓
Rate of attainment of postsecondary certificates and degrees and industry-recognized certifications or licensure	✓	✓
Rate of persistence in postsecondary education	✓	
Rate of employment	✓	✓
Earnings	✓	✓

The following section provides a description of the suggested measures and measurement approaches for each of the original six indicators the SPAC was asked to examine. The report describes the issues the SPAC considered and outlines the agreements they reached and any options they suggested. Measurement approaches are also presented in charts following each discussion.

¹⁰ U.S. Department of Education. (2012). *Investing in America's Future: A Blueprint for Transforming Career and Technical Education*. Washington, DC: Office of Vocational and Adult Education. Retrieved June 18, 2012, from <http://www2.ed.gov/about/offices/list/ovae/pi/cte/transforming-career-technical-education.pdf>.

The *Blueprint* presents the Department's goals for *Perkins* reauthorization, outlining four core principles to support more rigorous, relevant, and results-driven CTE programming:

1. **Alignment**—connecting high-quality CTE programs with labor market needs to equip students with 21st-century skills and prepare them for high-demand, high-growth industry areas;
2. **Collaboration**—linking secondary and postsecondary institutions, employers, and industry partners to improve CTE program quality;
3. **Accountability**—improving academic outcomes and building technical and employability skills in CTE programs, using common definitions and clear metrics for performance; and
4. **Innovation**—emphasizing systemic reforms of state policies and practices to support CTE implementation of effective practices at the local level.

Secondary Graduation Rate

The suggested measure assesses the graduation rate of accountably enrolled students who are included in a state's *ESEA* four-year high school graduation rate.

Percentage of accountably enrolled CTE students who graduated according to the state's computation of its graduation rate as described in Section 1111(b)(2)(C)(vi) of the *ESEA*.

Population

The SPAC called for basing measurement on the population of ninth-grade students in the *ESEA* cohort who completed at least 50 percent of a state-approved career preparation program. This cohort allows states to align their *Perkins* measurement approach with the *ESEA* calculation of graduation rates for their state.

Method

The SPAC advocated that states conduct administrative record matches using their state's *ESEA* accountability data that are reported to *EDFacts*. Doing so ensures that the base of students included in the measure is comparable across the *ESEA* and *Perkins* legislation.

Graduation

SPAC members suggested limiting the numerator to students who earned a standard high school diploma, as defined in the *ESEA*. This measurement approach will not include students who graduated in more than four years or who earned a credential other than a standard high school diploma. This

approach will ensure that the criteria used to identify high school graduates for *Perkins* parallels the requirements in the *ESEA* legislation.

Timing

In addition to aligning the measurement approach with *ESEA* reporting requirements, the SPAC suggested aligning the timing of annual reporting of this indicator with *Perkins* and the *ESEA* legislation.

Usefulness

SPAC members recommended including the secondary graduation rate as a core accountability indicator. Some SPAC members questioned the contribution that CTE makes toward the graduation rate because the timing at which students reach the CTE threshold for accountably enrolled is often later in their high school experience (often after students elect to drop out). Some were concerned that once students reach the CTE accountability threshold, they are most likely on track to graduate. Others indicated that the core objective of secondary education is graduation and it is important to measure CTE's contribution to the secondary graduation rate.

SECONDARY GRADUATION RATE

Percentage of accountably enrolled secondary students who graduated according to the state's computation of its graduation rate as described in Section 1111(b)(2)(C)(vi) of the ESEA

Denominator
Students who

- completed at least 50 percent of a state-approved career preparation program by the end of the reporting year AND
- were included in the state's computation of its ESEA graduation rate in the reporting year

Criterion D1
Accountably enrolled: See secondary threshold chart

Criterion D2
Included in state computation of ESEA graduation rate

Considerations D2

- Assumes four-year cohort beginning with ninth grade
- States must link to their ESEA definition/reporting for graduation
- States must conduct administrative record matches
- Use ED*Facts* to access these data

Implications D2

- Not all students who reach the threshold level of participation will be included
- Graduation data for the measure will be comparable to those data reported for other students
- Students often reach the suggested threshold after the time dropouts generally occur; students who reach the threshold may already be on track to graduate

Numerator
Students who

- completed at least 50 percent of a state-approved career preparation program by the end of the reporting year AND
- were included in the state's computation of its ESEA graduation rate in the reporting year AND
- received a standard high school diploma in the reporting year

Criterion N1
All denominator criteria

Criterion N2
Received a standard high school diploma in the reporting year

Consideration N2
States must limit reporting to accountably enrolled students who received a standard high school diploma as defined in the ESEA

Implication N2
Students earning a GED or a certificate of completion or who graduate in more than four years would not be counted

Rate of Secondary Enrollment in Postsecondary Education

The suggested measure of this performance indicator assesses the rate at which accountably enrolled high school graduates enroll in postsecondary education in the following reporting year.

Option 1: Percentage of accountably enrolled high school graduates who enrolled in any postsecondary institution in the United States at any point during the second quarter following the end of the reporting year during which the student graduated.

Option 2: Percentage of accountably enrolled high school graduates who enrolled in any postsecondary institution in the United States or entered advanced training at any point during the second quarter following the end of the reporting year during which the student graduated.

Population

The SPAC suggested that the population for this measure consist of high school graduates who completed at least 50 percent of a state-approved career preparation program by the end of the reporting year. The population for this indicator differs from that of the graduation indicator because it is expanded to include all students who reach a threshold level of participation and complete their education, rather than only students who are part of the *ESEA* ninth-grade cohort.

The SPAC also questioned whether the denominator of this measure should be limited to those who completed the full secondary sequence of a CTE POS, but suggested maintaining the parameter of at least 50 percent of a career preparation program. The SPAC supported keeping population definitions as consistent as possible across indicators. While members noted that assessing placement for students who meet the “at least 50 percent” threshold will mean that states will be accountable for students who did not complete their CTE program—and who may not have received the skills necessary to prepare them for postsecondary enrollment or advanced training—the number of students eligible for the denominator could be much smaller for this measure if the standard is completion of a secondary CTE sequence.

Types of high school completion

The SPAC offered two options for assessing completion.

Option 1: Received a standard high school diploma or the equivalent (e.g., GED)

Option 2: Received a standard high school diploma

Members discussed whether the denominator should include students who exit high school with an award other than a standard high school diploma. Advocates for using only the standard high school diploma noted that students who exit high school with a GED or alternative certificate of high school completion may lack the skills necessary for transition to postsecondary education. Members noted that the mission in some states is for students to graduate with a standard high school diploma, and

establishing a different outcome for CTE would be inconsistent with this goal. Including equivalency degrees, such as the GED, also could undermine measure reliability, because states face significant challenges in acquiring information about GED attainment for individual students. States also may use different criteria for determining whether a student has received a GED, such as a student's self-report versus administrative record matching. Consequently, including GED attainment in the measure may reduce the comparability of data across states, as well as introduce measurement issues that compromise data reliability. Advocates for including equivalent awards suggested that omitting alternative routes to completion would mean that some students who otherwise completed high school would not be included in the calculation.

If the measure includes diplomas and equivalent awards, states should conduct administrative record matches with GED databases to determine if students have received a GED. Members noted that data collection guidelines will be needed to ensure that state-reported GED data are as comparable as possible.

Postsecondary enrollment

The SPAC suggested two options for postsecondary enrollment.

Option 1: Percentage of accountably enrolled high school graduates who enroll in postsecondary education in the following reporting year

Option 2: Percentage of accountably enrolled high school graduates who enroll in postsecondary education OR advanced training in the following reporting year

Some members believed that the measure should be restricted to only those students who enrolled in an accredited postsecondary institution. Others suggested that students who continued their education through advanced training outside of a traditional postsecondary institution should also be counted as having achieved a positive educational outcome.

Eligible postsecondary course work

The SPAC suggested two options for eligible postsecondary course work.

Option 1: Enrollment in any course work in a postsecondary institution

Option 2: Enrollment in college-level course work leading to a degree

Some members suggested including all students who graduate from high school and go on to enroll in any course work in a postsecondary institution. Others suggested including only students enrolled in at least some college-level course work, which would exclude students taking only remedial or adult continuing education courses.

Some SPAC members contended that students taking only postsecondary remedial courses—i.e., taking no college-level courses—should be excluded because those courses are not considered college level, and taking only remedial course work does not indicate a successful postsecondary transition.

The SPAC also had concerns about including students who were enrolled in only adult continuing education course work—i.e., taking no college-level courses—as these are typically not credit-bearing or college-level courses or related to a degree- or certificate-granting program. The number of these students is likely to be low, however, and there are some occupationally focused adult continuing education courses that a student might take.

No resolution was reached on whether to exclude students enrolled only in remedial or adult continuing education course work. In both cases, however, concerns exist regarding the validity and reliability of data if states were to exclude students based on enrollment in certain types of courses. First, states vary in how they define postsecondary remedial and adult continuing education courses. In addition, the National Student Clearinghouse (NSC) does not collect course-level data, so states could differentiate among types of courses only for students enrolled within their own states, not for students who have enrolled in out-of-state institutions. Finally, not all states currently collect and maintain course-level data, so not all of them could differentiate among students even within their states.

The SPAC considered the implications of including or excluding these students and suggested that it may be possible to report all students who enrolled in a postsecondary institution and provide information at a sub-indicator level—for in-state students only—to distinguish those who were enrolled in remedial or adult continuing education courses from those who were not.

Advanced training

The SPAC suggested offering two options for defining advanced training.

Option 1: Registered apprenticeship

Option 2: Registered apprenticeship and military enlistment

Some SPAC members noted that individuals who enlist in the military often are provided with advanced skill training in an occupational area. Others advocated including military enlistment only as part of an employment indicator, because not all military enlistees receive advanced training. It is virtually impossible, using existing databases, to obtain information on any training an individual may have received during military service.

Access to enrollment data

SPAC members suggested conducting administrative record matches with in-state postsecondary institutions and accessing the NSC to track student enrollments in postsecondary education. A deferred enrollment status would not be considered postsecondary enrollment.

The SPAC suggested that the Department take steps to develop a memorandum of understanding (MOU) with the NSC on behalf of states to facilitate matching and reduce the costs of accessing the NSC data.

SPAC members noted difficulties in obtaining data on the participation of high school graduates in registered apprenticeship programs. Some states do not have an established data collection mechanism to uniformly acquire registered apprenticeship participation data that are linked to educational records.

Timing

Secondary SPAC members agreed that the assessment of students' enrollment in postsecondary education should occur within a reporting window beginning with the first academic term following their high school graduation and ending with a cutoff of December 31st of the following reporting year. For example, a student graduating in June 2012 would be assessed for postsecondary enrollment at any point between October 1 and December 31, 2012.

Minimum level of enrollment

SPAC members inquired whether there should be a minimum level of postsecondary course work required for a secondary school graduate to be considered "enrolled." The SPAC questioned whether a single credit course would constitute postsecondary enrollment, or if there is a minimum number of credits/courses a student needs to pursue to be considered as enrolled. Some SPAC members indicated they were not aware of any postsecondary enrollment qualifier that establishes a specific level of postsecondary engagement to be considered "enrolled." There was support for consistency with other related data definitions.

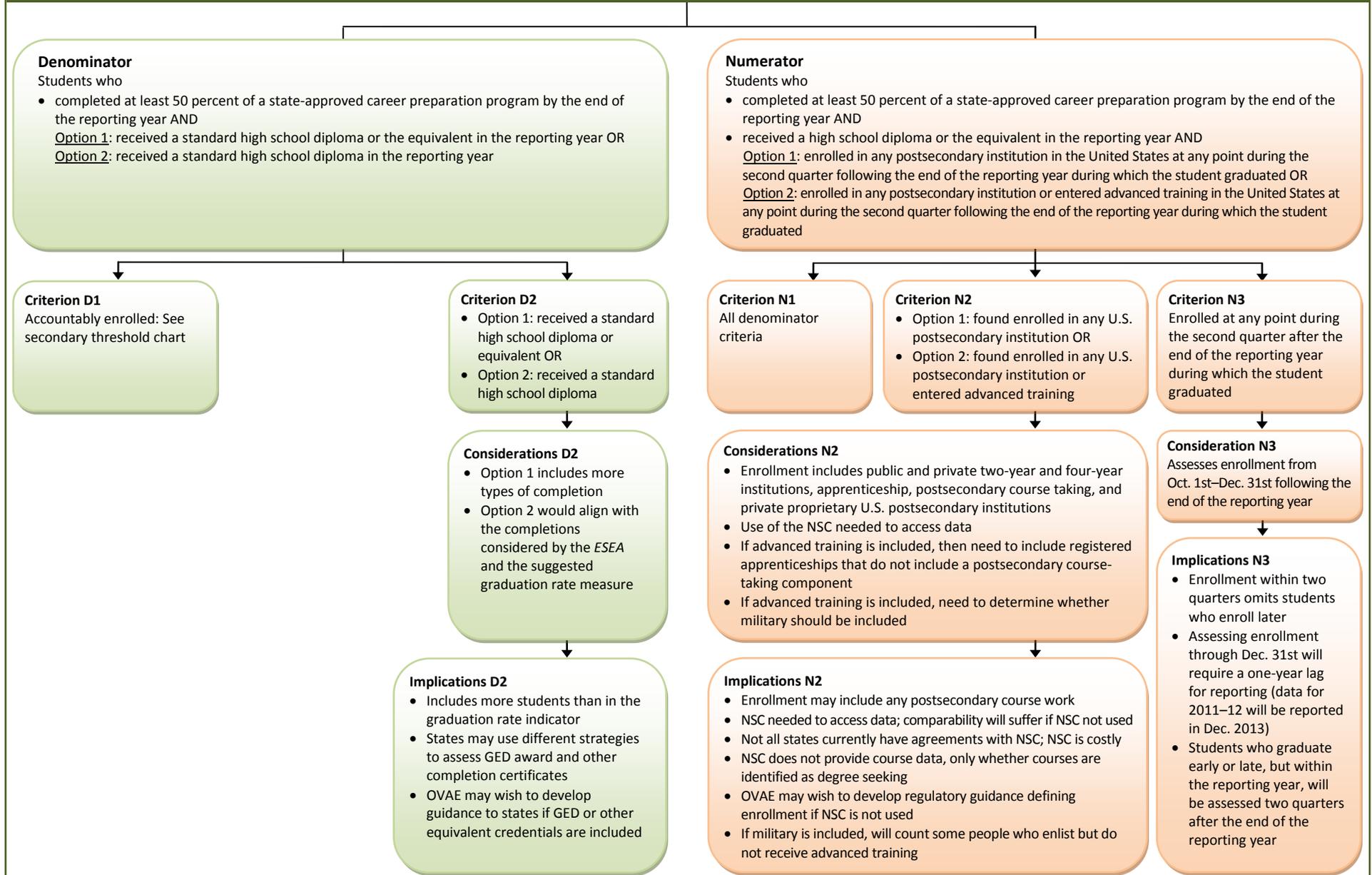
Participation in the postsecondary component of a program of study

The SPAC supported defining eligible postsecondary enrollment as postsecondary enrollment regardless of whether a student continues in the same program area or a related field. Members discussed whether enrollment in postsecondary education should be associated with the POS a student pursued while in secondary education or if it could be associated with a POS in another career area or be part of another postsecondary, non-POS program. Although some members thought data systems could be created to capture same or related program-level enrollment data, members agreed that measuring postsecondary enrollment broadly was more appropriate. CTE students who meet the secondary threshold may continue with postsecondary education, but could do so in clusters or pathways that are different from their secondary career preparation program. SPAC members contended this was a successful student outcome and should be included in the measure.

RATE OF SECONDARY ENROLLMENT IN POSTSECONDARY EDUCATION

Option 1: Percentage of accountably enrolled high school graduates who enrolled in any postsecondary institution at any point during the second quarter following the end of the reporting year during which the student graduated

Option 2: Percentage of accountably enrolled high school graduates who enrolled in any postsecondary institution or entered advanced training at any point during the second quarter following the end of the reporting year during which the student graduated



Rate of Postsecondary Award Attainment

The suggested measure options assess the percentage of accountably enrolled students who received a postsecondary award.

Option 1: Percentage of accountably enrolled students who received an institution-awarded postsecondary degree, diploma, or certificate or a third-party-awarded employer certification in the reporting year or following reporting year.

Option 1a: Percentage of accountably enrolled students who received an institution-awarded postsecondary degree, diploma, or certificate in the reporting year or following reporting year [excludes third-party-awarded employer certifications].

Option 2: Percentage of accountably enrolled students who received an institution-awarded postsecondary degree, diploma, or certificate or a third-party-awarded employer certification up to and including the reporting year or the following reporting year and who did not reenroll the following reporting year.

Option 2a: Percentage of accountably enrolled students who received an institution-awarded postsecondary degree, diploma, or certificate up to and including the reporting year or the following reporting year and who did not reenroll the following reporting year [excludes third-party-awarded employer certifications].

Population

The SPAC advocated capturing positive award attainment outcomes for students, regardless of whether the student reenrolls in future years or received a credential in the years prior to exit. Members noted that, in *Perkins IV*, outcomes may not be counted for students who continue their postsecondary education after receiving an award.

In *Perkins IV*, a student must exit postsecondary education, i.e., not reenroll for a state-specified period of time, to be included in the denominator for the measure and must receive an award in the reporting year—the year they exit—to be included in the numerator. Students who receive an award and then reenroll the next term or year are not included in the calculation of the *Perkins IV* measure results for the reporting year because they did not exit postsecondary education. In addition, if those students do not receive another credential in the reporting year when they eventually exit, they are included in the *Perkins IV* measure denominator but not the numerator for that reporting year, so they are counted as a non-positive outcome.

The SPAC developed two measure options to address this issue. The first focuses on capturing awards received in the current or following reporting year, regardless of whether students reenroll in the future. The second is designed to capture awards from the current, following, and prior reporting years for students who exited in the reporting year.

Options

1. *Option 1 assesses award attainment for students who leave in the reporting year and for students who receive an award in the reporting year and reenroll the next year. It counts awards received in the reporting year or the following year.*

Measure: Percentage of accountably enrolled students who received an institution-awarded postsecondary degree, diploma, or certificate or a third-party-awarded employer certification in the reporting year or following reporting year.

Denominator: Students who earned at least 12 cumulative CTE credits or the equivalent in a state-approved career preparation program by the end of the reporting year or completed a state-approved career preparation program of fewer than 12 credits or the equivalent by the end of the reporting year AND

- did not reenroll in the following reporting year OR
- received an award in the reporting year and reenrolled the following reporting year.

Numerator: Students who earned at least 12 cumulative CTE credits or the equivalent in a state-approved career preparation program by the end of the reporting year or completed a state-approved career preparation program of fewer than 12 credits or the equivalent by the end of the reporting year AND

- received an award in the reporting year or following reporting year.

2. *Option 2 assesses award attainment for students who leave postsecondary education in the reporting year. It counts awards received in the reporting year, prior years, or the following year.*

Measure: Percentage of accountably enrolled students who received an institution-awarded postsecondary degree, diploma, or certificate or a third-party-awarded employer certification up to and including the reporting year or the following reporting year and who did not reenroll the following reporting year.

Denominator: Students who earned at least 12 cumulative CTE credits or the equivalent in a state-approved career preparation program or completed a state-approved career preparation program of fewer than 12 credits or the equivalent by the end of the reporting year AND

- did not reenroll the following reporting year.

The denominator includes accountably enrolled students who exited in the reporting year.

Numerator: Students who earned at least 12 cumulative CTE credits or the equivalent in a state-approved career preparation program or completed a state-approved career

preparation program of fewer than 12 credits or the equivalent by the end of the reporting year AND

- did not reenroll the following reporting year AND
- received an award in the reporting year, prior to the reporting year, or in the following reporting year.

The numerator includes accountably enrolled students who exited in the reporting year and who received an award in the reporting year, prior to the reporting year, or in the following reporting year.

Maximum time to look back for awards

If the postsecondary threshold is limited to a specific number of years that states may review for cumulative credits or the equivalent, that same time frame should apply to awards that students receive (applies to Option 1 and Option 2 only, not 1a or 2a). For example, if states examine the reporting year and the previous four years to determine if students meet the threshold, then states would also examine the reporting year and the previous four years to determine if the student received any awards prior to exiting. The SPAC did not reach a conclusion on whether states should look back only as far—within the designated time period—as a student is enrolled and does not stop out for a year or more.

If the postsecondary threshold is not limited, states should examine the reporting year and all prior years until the student stops out for a full year or more. For example, in reporting year 2011–12, if a student attended in 2006–07, did not attend in 2007–08, and attended 2008–09 through 2011–12, the state can review the 2008–09 through 2011–12 years of data to see if the student received an award, but should not consider awards received in 2006–07 or 2007–08 because the student stopped out for the 2007–08 year. The assumption is that awards received in 2006–07 would have been captured in the 2006–07 reporting year, when the student left and did not return for one year.

Completion

The SPAC suggested two options for the types of awards that should be counted for this measure and any other measure that considers award attainment.

Options

1. *Include postsecondary degrees, diplomas, and certificates awarded by the postsecondary institution and state- or nationally recognized employer certifications awarded by a third party.* Students in some programs earn external employer certifications, such as a licensure as a registered nurse (RN). Some members advocated including these credentials in the measure because excluding them would underestimate award attainment. Many of these credentials have significant value in the labor market, and some, like RN licensure, are required for employment in the field.

2. *Include only postsecondary degrees, diplomas, and certificates awarded by the postsecondary institution; do not include state- or nationally recognized employer certifications awarded by a third party.* SPAC members who advocated excluding employer certifications contend that the data are too difficult to obtain. There are significant challenges involved in acquiring student results from state and national testing authorities, many of which will not release student-level data. Several members also expressed concern that, because some states have access to more certification data than others, measure results would not be consistent across states. A new initiative in Illinois is exploring the potential for a national clearinghouse of certification results. The initiative is in the very early stages, and it is too soon to assess whether it will eventually alleviate these challenges.

If employer certifications are to be included in the measure, members recommended establishing more clarity regarding which employer certifications or credentials would be eligible. Currently, the SPAC has suggested defining certifications as state- or nationally recognized employer certifications that are

- identified by the state as high skill/high wage;
- awarded by a third party; and
- administered by a proctored testing authority or organization.

SPAC members determined that if the criteria for employer credentials are clear, then states will be able to maintain and update a list of eligible credentials. SPAC members had earlier expressed concern about frequent changes and the potential effects on comparability across years.

OVAE indicated interest in disaggregated counts of the number of degrees, diplomas, certifications, and employer certifications that students receive. The SPAC noted that most states would be able to provide duplicated counts of the disaggregated categories while still reporting an unduplicated aggregate count for the measure. Members suggested that the disaggregated categories be treated as breakouts and not be subject to target negotiations.

Received or eligible to receive

The SPAC recommended counting only those students who received an award, not those who were eligible to receive a credential but who did not actually receive it. Some students may forego a credential to avoid an institutional fee or because they can transfer or obtain employment without the official award. Members agreed that the long-term value to the student is greater with an actual award and noted that requiring receipt of an award may serve as motivation to change institutional policies and fees that make it more difficult for students to receive a credential.

Multiple credentials

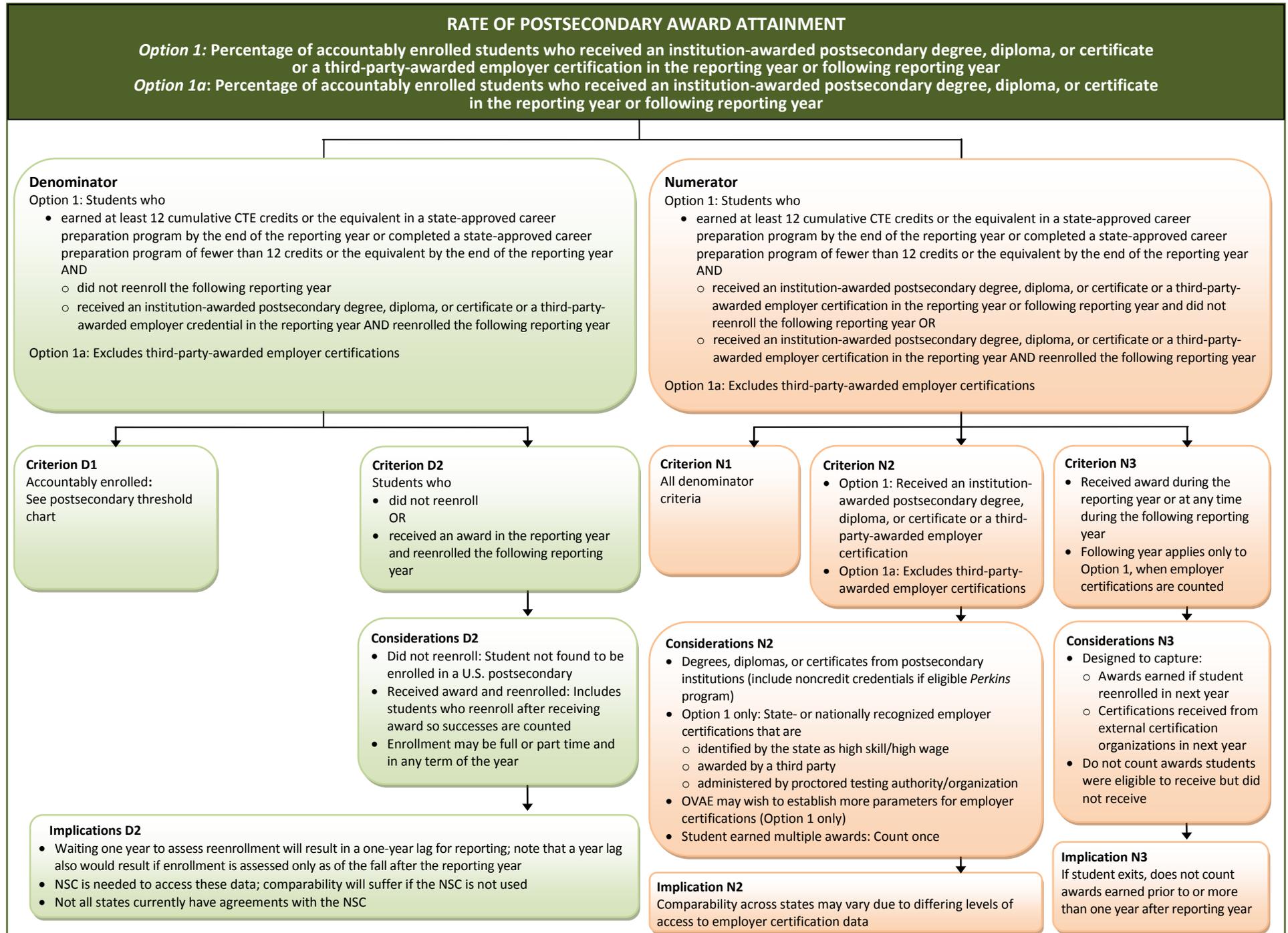
The measure should assess the percentage of students who received an award; it should not count the number of awards received. If a student received more than one award, then he or she is counted once as a single award recipient, not multiple times to account for multiple awards. States may find it beneficial to internally report how many individual awards are earned.

Time line

If employer certifications are counted in the measure, the SPAC suggested assessing award attainment through the following reporting year. Students pursuing third-party certifications may not be able to take assessments before the end of the reporting year. The SPAC considered extending the time line beyond the next year because students may receive awards more than one year later, but recommended only the following reporting year to allow states to report results in a timely way.

Noncredit certificates

The SPAC suggested including noncredit postsecondary credentials if the awarding program is an eligible state-approved career preparation program.



RATE OF POSTSECONDARY AWARD ATTAINMENT

Option 2: Percentage of accountably enrolled students who received an institution-awarded postsecondary degree, diploma, or certificate or a third-party-awarded employer certification up to and including the reporting year or the following reporting year and who did not reenroll the following reporting year
Option 2a: Percentage of accountably enrolled students who received an institution-awarded postsecondary degree, diploma, or certificate up to and including the reporting year and following reporting year and who did not reenroll the following reporting year

Denominator

Option 2: Students who

- earned at least 12 cumulative CTE credits or the equivalent in a state-approved career preparation program by the end of the reporting year or completed a state-approved career preparation program of fewer than 12 credits or the equivalent by the end of the reporting year AND
- did not reenroll the following reporting year

Option 2a: No different

Numerator

Option 2: Students who

- earned at least 12 cumulative CTE credits or the equivalent in a state-approved career preparation program by the end of the reporting year or completed a state-approved career preparation program of fewer than 12 credits or the equivalent by the end of the reporting year AND
- did not reenroll the following reporting year AND
- received an institution-awarded postsecondary degree, diploma, or certificate or a third-party-awarded employer certification up to and including the reporting year or the following reporting year

Option 2a: Excludes third-party-awarded employer certifications

Criterion D1

Accountably enrolled: See postsecondary threshold chart

Criterion D2

Did not reenroll the following reporting year

Criterion N1

All denominator criteria

Criterion N2

- Option 2: Received institution-awarded postsecondary degree, diploma, or certificate or a third-party-awarded employer certification
- Option 2a: Excludes third-party certification

Criterion N3

- Received award in the reporting year, a prior year, or the following reporting year
- Following year applies only to Option 2, when employer certifications are counted

Considerations D2

- Student not found to be enrolled in a U.S. postsecondary institution at any time during the full following reporting year
- Enrollment may be full or part time and in any term of the year

Considerations N2

- Degrees, diplomas, or certificates from postsecondary institutions (include noncredit credentials if eligible Perkins program)
- Option 2: State- or nationally recognized employer certifications that are
 - identified by the state as high skill/high wage
 - awarded by a third party
 - administered by proctored testing authority/ organization
- OVAE may wish to set additional parameters for employer certifications (Option 2 only)
- Student earned multiple awards: Count once

Considerations N3

- Designed to capture:
 - Awards earned even if student reenrolled later
 - Certifications from external state or national certification organizations
- Max time to look back for awards, options:
 - A. Limit to same max years for cumulative credits/equivalent
 - B. Review prior years until student stops out for 1 or more

Implications D2

- Waiting one year to assess reenrollment will result in a one-year lag for reporting; note that a year lag also would be the result if enrollment is assessed only in fall after reporting year
- NSC is needed to access these data and comparability will suffer if NSC is not used
- Not all states currently have agreements with the NSC

Implication N2

Option 2: Comparability across states may vary due to differing levels of access to employer certification data

Implication N3

Waiting a year to assess reenrollment results in a 1-year reporting lag; would result if enrollment assessed only in fall after the reporting year

Rate of Persistence in Postsecondary Education

The measure of this performance indicator assesses the rate at which students persisted in postsecondary education at the same or another postsecondary institution the following reporting year. It excludes students who received an award in the reporting year.

Option 1: Percentage of accountably enrolled students who did not receive an institution-awarded postsecondary degree, diploma, or certificate or a third-party-awarded employer certification in the reporting year and who enrolled in postsecondary education in the following reporting year.

Option 2: Percentage of accountably enrolled students who did not receive an institution-awarded postsecondary degree, diploma, or certificate in the reporting year and who enrolled in postsecondary education in the following reporting year *[excludes third-party-awarded employer certifications]*.

Population

Students who earned at least 12 cumulative CTE credits or the equivalent in a state-approved career preparation program by the end of the reporting year or completed a state-approved career preparation program of fewer than 12 credits or the equivalent by the end of the reporting year and who did not receive an institution-awarded degree, diploma, or certificate or a third-party-awarded employer certification in the reporting year.

The SPAC also considered excluding students who received an award in the following reporting year, in addition to excluding students who received an award in the current reporting year. Members decided, however, to suggest including those students because they may reenroll in the following year and complete a credential and should be viewed as having persisted.

Postsecondary enrollment

Enrollment in postsecondary education should include U.S. postsecondary institutions offering education or advanced training.

Ideally, states will conduct administrative record matches using state longitudinal data systems for in-state postsecondary institutions and access the NSC for enrollment in out-of-state, private, and for-profit institutions.

The SPAC noted that the NSC does not include data for all U.S. postsecondary institutions, although it contains data for more than 3,300 U.S. postsecondary institutions and covers 93 percent of U.S. postsecondary enrollment and graduation data. The proportion of students and institutions covered in individual states may vary as well. In addition, some states do not currently have agreements with the NSC due to the associated costs, although there are discounted and no-cost options for obtaining NSC reports.¹¹

Completion

As with the attainment indicator, the SPAC suggested two options for the types of awards that should be considered when determining if a student received an award:

Options

1. *Include postsecondary degrees, diplomas, and certificates awarded by the postsecondary institution and state- or nationally recognized employer certifications awarded by a third party.* Students in some programs earn external employer certifications, such as a licensure as a registered nurse (RN). Some members advocated including these credentials in the measure because excluding them would underestimate award attainment. Many of these credentials have significant value in the labor market, and some, like RN licensure, are required for employment in the field.
2. *Include only postsecondary degrees, diplomas, and certificates awarded by the postsecondary institution; do not include state- or nationally recognized employer certifications awarded by a third party.* SPAC members who advocated excluding employer certifications contend that the data are too difficult to obtain. There are significant challenges involved in acquiring student results from state and national testing authorities, many of which will not release student-level data. Several members also expressed concern that, because some states have access to more certification data than others, measure results would not be consistent across states. A new initiative in Illinois is exploring the potential for a national clearinghouse of certification results. The initiative is in the very early stages, and it is too soon to assess whether it will eventually alleviate these challenges.

¹¹ The NSC offers three options for membership in its *StudentTracker* service, which provides reports on the enrollment status of prospective, current, and former students: (1) pay an annual fee equal to enrollment times \$.10, with a minimum annual fee of \$300; (2) pay an annual fee of enrollment times \$.05 (\$150 minimum) by participating in two other free NSC services (*DegreeVerify* and *EnrollmentVerify*) or reporting additional data elements including class level, college ID, and major or CIP code; or (3) enroll in *StudentTracker* for free by participating in the two free NSC services and reporting the additional data elements. See <http://www.studentclearinghouse.org/colleges/fees.php#studenttracker> for more information.

Time line for reenrolling

The SPAC recommended looking for reenrollment the entire following reporting year. Postsecondary students may attend part time, and some programs do not begin in the fall term. Assessing enrollment in the full following reporting year will ensure that states capture enrollment for part-time students and those who are enrolled in programs that offer course work in terms other than the fall.

Members considered extending the data collection period to encompass another 6–12 months because some students stop out for longer than a year before reenrolling; a longer time line would allow states to identify more students who persisted. The SPAC determined that assessing one full reporting year enables states to report outcomes within 18 months of the end of a reporting year, which allows timely data for program improvement.

Core indicator or progress indicator

The SPAC supported including rate of persistence in postsecondary education as a core performance indicator. Several members reported that further education and training is core to their mission, and it is important to their programs and policymakers to know whether students persist.

A few members advocated categorizing rate of persistence as a non-negotiated progress indicator for *Perkins*. One concern was that it is not a measure of an outcome, such as completion, but is instead a measure of progress toward the desired outcome of completion. Advocates suggested that grantees be held accountable for outcomes, not just take steps toward achieving them. A second concern was that rate of persistence may not be the best measure of progress toward completion. Washington State's research on the best measures of student progress toward completion identified the following three key "momentum points" that are designed to focus on shorter term, intermediate outcomes that provide meaningful momentum toward degree and certificate completion for all students, no matter where they start:

- Building toward college-level skills (basic skills gains, passing precollege writing or math);
- First-year retention (earning 15 and then 30 college-level credits); and
- Completing college-level math (passing math courses required for either technical or academic associate degrees).

RATE OF PERSISTENCE IN POSTSECONDARY EDUCATION

Option 1: Percentage of accountably enrolled students who did not receive an institution-awarded postsecondary degree, diploma, or certificate or a third-party-awarded employer certification in the reporting year and who enrolled in postsecondary education in the following reporting year
Option 2: Percentage of accountably enrolled students who did not receive an institution-awarded postsecondary degree, diploma, or certificate in the reporting year and who enrolled in postsecondary education in the following reporting year

Denominator

Option 1: Students who

- earned at least 12 cumulative CTE credits or the equivalent in a state-approved career preparation program by the end of the reporting year or completed a state-approved career preparation program of fewer than 12 credits or the equivalent by the end of the reporting year AND
- did not receive an institution-awarded degree, diploma, or certificate or a third-party-awarded employer certification in the reporting year

Option 2: Excludes third-party-awarded employer certifications

Criterion D1

Accountably enrolled: See postsecondary threshold chart

Criterion D2

- Option 1: Did not receive an institution-awarded degree, diploma, or certificate or a third-party-awarded employer certification in the reporting year
- Option 2: Did not receive an institution-awarded degree, diploma, or certificate in the reporting year

Consideration D3

Students may receive an award during the following year

Implications D3

- Will result in a one-year lag for reporting
- Comparability may vary depending on data source, particularly for employer certifications

Numerator

Option 1: Students who

- earned at least 12 cumulative CTE credits or the equivalent in a state-approved career preparation program by the end of the reporting year or completed a state-approved career preparation program of fewer than 12 credits or the equivalent by the end of the reporting year AND
- did not receive an institution-awarded degree, diploma, or certificate or a third-party-awarded employer certification in the reporting year AND
- enrolled in postsecondary education in the following reporting year

Option 2: Excludes third-party-awarded employer certifications

Criterion N1

All denominator criteria

Criterion N2

Enrolled in any postsecondary institution in the United States

Consideration N2

Includes enrollment in any program

Implications N2

- The NSC is needed to access these data and comparability will suffer if the NSC is not used
- Not all states currently have agreements with the NSC
- The NSC may be cost prohibitive

Criterion N3

Found to be enrolled at any time during the following reporting year

Considerations N3

- Assesses enrollment at any time during the following reporting year
- Captures reenrollment for part-time students and for students in programs that may not offer course work in fall terms

Implication N3

Waiting one year to assess reenrollment will result in a one-year lag for reporting; note that a year lag also would result if enrollment is assessed only in fall after the reporting year

Employment

The *Perkins IV* accountability system includes a placement indicator that assesses postsecondary enrollment and employment for secondary students and employment for postsecondary students. There is no *Perkins IV* earnings indicator, however, so the SPAC began examining both indicators by reviewing post-program workforce outcomes that are important in the field. They suggested that to the extent possible, any indicators of post-program labor force outcomes should address the following areas:

- Employment
- Earnings
- Return on Investment
- Preparation for Further Education and Careers
- Completion (which includes diplomas, degrees, occupational licensure, and employer certifications)

During the time period for the SPAC work, the Common Education Data Standards (CEDS) effort was being expanded to include CTE, adult education, and workforce data resources. For workforce, the CEDS advisory group focused its attention on resources for measuring employment and earnings.¹² Members of the group suggested that CEDS serve as a core set of necessary workforce data elements, assuming that these elements are or will soon be available in all, or nearly all, states. While these proposed elements do not provide all of the desired information, they are comprehensive, frequently audited for accuracy, and represent data available to states through administrative datasets and related national efforts. These datasets are also used by programs covered in the *Workforce Investment Act (WIA)* and other workforce programs.

¹² CEDS Version 3 was released in January 2013. For more information about the employment and earnings elements, refer to <https://ceds.ed.gov/>.

CEDS Version 3 (V3) employment- and earnings-related data elements include, but are not limited to, the following:

- Student identifier (Social Security Number)
- Employed while enrolled
- Employed after exit
- Employment location (state)
- Industry(ies) of employment—North American Industry Classification System
- Employed in multiple jobs
- Quarterly employment earnings
- Quarterly employment reference quarter start and end dates
- Employment and earnings data source

Source: Common Education Data Standards. (2012). *CEDS-Workforce-Version-3*. Retrieved January 31, 2013, from <https://ceds.ed.gov/CEDSDownloads.aspx?v=3>.

Using draft elements for CEDS V3, the SPAC considered two hypothetical measures of employment and earnings.¹³ One focused on success, including employment and further education, and the other emphasized students' post-program earnings. Their purpose was to help the SPAC flesh out issues related to numerators and denominators, messaging, and the timing of data collection.

As members examined the indicators, they also discussed the utility of negotiating performance targets for them. They noted that employment and earnings are affected by many issues, some of which are beyond the control of state or local education agencies. While both are very important to state and local decision making, many SPAC members discouraged their use as negotiated performance indicators. As an alternative, they suggested conducting periodic value-added impact evaluations that focus on various programs and program delivery strategies.

If employment and earnings are adopted as negotiated indicators, the SPAC indicated that performance expectations must be clear and unambiguous. If performance involves sanctions or rewards, which have high stakes, there must be an understanding of what is bad (thus sanctionable) and what is good (thus rewardable). Comparisons and benchmarks with other populations and programs may be one strategy to address this issue.

¹³ The SPAC used the publicly available draft CEDS Version 3 recommendations to inform its dialogue about employment and earnings (Common Education Data Standards. (2012). *CEDS Elements—Version 3 (Draft)*. Retrieved December 4, 2012, from <https://ceds.ed.gov/elements.aspx?v=3&ex> (Draft).

The SPAC discussed a hypothetical “success” rate, which addresses the suggested further education and employment themes.

Hypothetical Success Rate

$$\frac{\text{Students employed but not reenrolled} + \text{Students reenrolled but not employed} + \text{Students reenrolled and employed}}{\text{Appropriate secondary or postsecondary population}}$$

Purpose

SPAC members noted that a common objective of CTE is to prepare students for both further education and careers, and that a success measure including both outcomes promotes career pathways and POS objectives and important goals of the *Blueprint*. They also indicated that there is considerable current emphasis on employment-related issues as matters of both accountability and consumer choice.

Some members suggested, however, that including student reenrollment along with employment may fail to address state and federal policymakers’ primary interest in understanding how many students obtain employment. In addition, members noted that the secondary enrollment in postsecondary education (see page 17) and persistence in postsecondary education (see page 29) measures already address further education, indicating that a combined “success measure” may be confusing. While a version of a success measure is included in the Achieving the Dream initiative, efforts to shape performance measures associated with reauthorization of the *WIA* focus solely on employment.¹⁴

Population

The SPAC discussed potential numerators and denominators to inform their discussion of collecting and reporting employment data.

Denominators: Students who were accountably enrolled and who graduated high school or received a postsecondary award.

- Secondary: Students who completed at least 50 percent of a state-approved career preparation program by the end of the reporting year and received a high school diploma or the equivalent in the reporting year.
- Postsecondary: Students who earned at least 12 cumulative credits or the equivalent in a state-approved career preparation program by the end of the reporting year or completed a state-approved career preparation program of fewer than 12 credits or the equivalent by the end of the reporting year and received an

¹⁴ Achieving the Dream strives to close achievement gaps and accelerate success for community college students, particularly for low-income students and students of color, through institutional and policy change, research, and public engagement. For more information about Achieving the Dream, go to <http://www.achievingthedream.org/>.

institution-awarded postsecondary degree, diploma, or certificate or a third-party-awarded employer certification in the reporting year or following reporting year.

Numerators: Students in the respective denominators who were found to be employed and/or reenrolled in further education.

- Secondary: Students in the denominator who were found to be employed but not reenrolled plus those who were reenrolled but not employed plus those who were found to be both reenrolled and employed.
- Postsecondary: Students in the denominator who were found to be employed but not reenrolled plus those who were reenrolled but not employed plus those who were found to be both reenrolled and employed.

The numerators represent subsets of the denominators: employed students and students who reenrolled in further education at a yet-to-be identified point after the close of the reporting year.¹⁵

The SPAC suggested that an assessment of employment (and, if included, further enrollment) should focus on students who met accountable enrollment thresholds and who either graduated (secondary) or who received a postsecondary award (postsecondary). A few members contended that the threshold of 50 percent completion of a program was too low for secondary education and advocated including only those students who completed the entire secondary program and graduated.

Sources of data

States should collect reenrollment data through their SLDS postsecondary linkages and administrative record matches with the NSC. SPAC members suggested that the primary data sources for employment data should be state unemployment insurance (UI) wage records supplemented by access to the Wage Record Interchange System 2 (WRIS2) and the Federal Employment Data Exchange System (FEDES).¹⁶ The Department may need to provide national coordination and guidance to ensure access to WRIS2 and FEDES.

Alternate strategies for data collection may be needed for states with limited access to administrative data, especially in states that do not collect social security numbers. The SPAC suggested that the Department issue guidelines about collecting and reporting data from any alternative sources to ensure they are aligned with data available from the wage records and to promote reasonable comparability across states.

¹⁵ The SPAC did not specify at what point these outcomes should be assessed; therefore, the report refers to a “yet-to-be-identified” time frame.

¹⁶ Employment should include military enlistment and federal civilian and postal service employment (not covered in state wage records); employment as an apprentice (covered in state wage records); and both in-state and out-of-state instances of employment (combinations of wage records from different states).

Acceptable employment

Occasionally, administrative wage record data will have earnings levels reported as zero for some individuals. In most cases examined, zero wages represent an error: the affected individuals were employed but their earnings were incorrectly reported. The SPAC suggested that future discussions should explore the possibility of using common “trim rules” to eliminate records for individuals with no reported earnings, noting that including wages of zero in an earnings calculation could result in misleading information.^{17,18} If trim rules were adopted, they would have to be applied consistently across states to support data comparability.

Level of enrollment in further education

The SPAC considered whether students have to reenroll at a higher level than the one they are leaving to be included in the numerator of the hypothetical success measure. For example, a state could include accountably enrolled postsecondary students only if they enroll in a four-year institution or in a program leading to a higher credential. The SPAC suggested that any further enrollment would suffice because further enrollment can be considered a positive outcome and because there may be differences in state data matching capabilities.

Timing

The SPAC suggested that, when assessing outcomes, the time period of reenrollment should be the same as that for employment. The time period may need to encompass the entire year following the reporting year to effectively align term-based enrollments and quarterly UI-based employment reports. Currently, *WIA* data reporting includes employment in the third quarter following program exit while *WIA* reauthorization discussions have focused on employment in the second and fourth quarter following exit. SPAC members generally agreed that reporting data collected in the first quarter following exit should be avoided and that reporting should include data from several time periods. Some suggested that a longer term follow-up was more appropriate for *Perkins*, contending that extended follow-up would support the focus that some states have on long-term career attainment rather than short-term job placement.

Point in time or growth

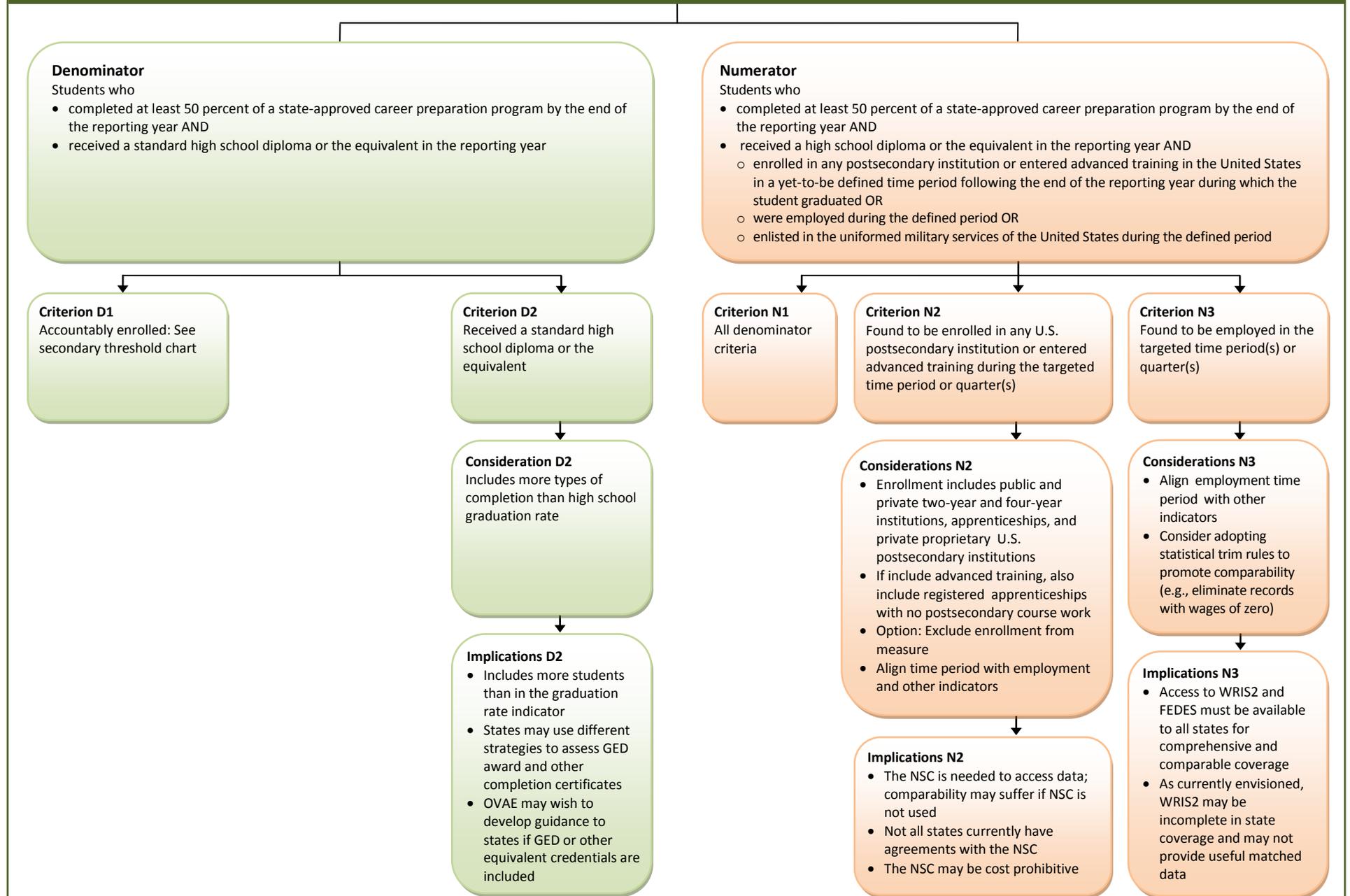
Members discussed the benefits of looking at a success rate over time versus taking a single snapshot. While consistency with other programs such as those in *WIA*, would be helpful, attention should also be paid to legislative and program goals. For example, longer term, career-oriented objectives versus shorter-term employment objectives. As that question is resolved, the Department also may wish to consider reporting actual data for the chosen periods or some measure of the differences between periods.

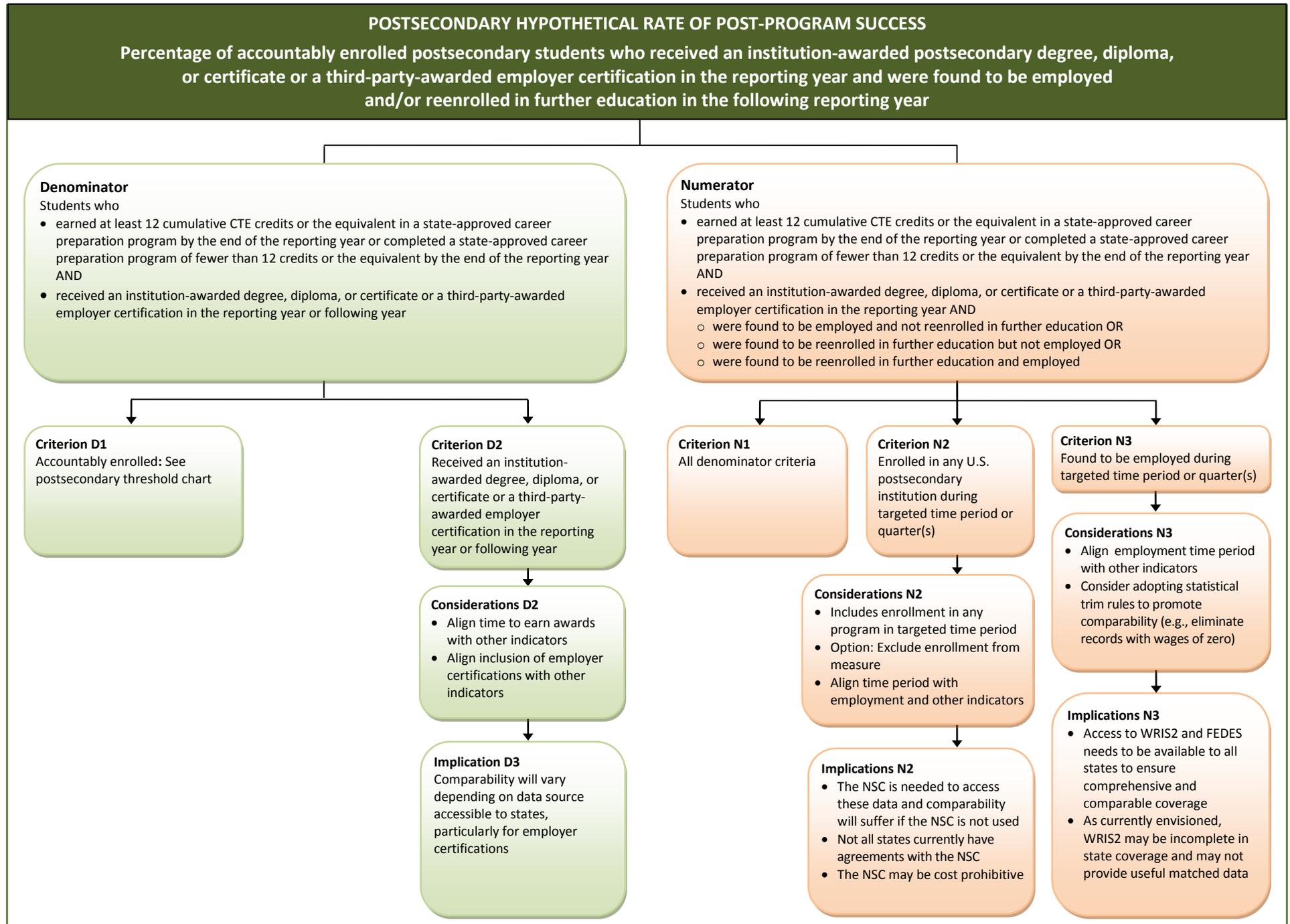
¹⁷ “Trim rules” are a statistical strategy for excluding incorrect, invalid, or impossible data from calculations.

¹⁸ Some states and *WIA* accountability reporting include all employed individuals, regardless of reported earnings.

SECONDARY HYPOTHETICAL RATE OF POST-PROGRAM SUCCESS

Percentage of accountably enrolled high school graduates found to be employed and/or enrolled in postsecondary education in the following reporting year





Earnings

While an indicator of earnings for former CTE students is new within *Perkins* accountability discussions, earnings have been the subject of numerous research studies as well as analyses of the public return on investment. SPAC members discussed a hypothetical measure to begin their examination of a potential earnings indicator. They suggested offering two post-attainment measures of change in earnings: one that focused on changes in the earnings of successive cohorts of students at a given point in time, and another that focused on changes to the earnings of each individual student within a given cohort *longitudinally* over time. These were not posed as “pre-program/post-program measures,” but rather as post-program measures over two undefined periods of time—i.e., “growth” measures.

Hypothetical Median Earnings

Option 1: Median earnings for defined populations at 6 months, 12 months, and 36 months following graduation/attainment (snapshot historical measures).

Option 2: Median earnings for serial cohorts of populations at 6 months, 12 months, and 36 months following graduation/attainment (snapshot longitudinal measures).

Purpose

SPAC members discussed the purpose and efficacy of an earnings change indicator. Some noted that policymakers are most interested in the earnings of former students that are theoretically attributable to the public investment in the programs in which the students participated. Assessing changes in earnings does not fully address that interest, so the SPAC focused on a discussion of earnings generally. Rather than reporting the distribution of students in terms of their earnings ranges—i.e., indexing earnings to some unique state amount such as prevailing wages or as a change amount over time—the SPAC suggested reporting median earnings at points in time that would be consistent with the success measure.

There was some discussion about whether earnings measures should be applied to secondary students who met the enrollment thresholds for accountably enrolled and graduated from high school, because a goal of many state secondary programs is to encourage further education. Therefore, the curricular focus is less on employment preparation and more on academics, and as such, one would not expect meaningful earnings gains that could be attributed to program participation.

Population

The SPAC used a discussion of potential numerators and denominators to identify issues related to collecting and reporting earnings data.

Denominators: Students who were accountably enrolled and who graduated high school or received a postsecondary award

- Secondary: Students who completed at least 50 percent of a state-approved career preparation program by the end of the reporting year and received a high school diploma or the equivalent and were not found to be enrolled in postsecondary education.
- Postsecondary: Students who earned at least 12 cumulative CTE credits or the equivalent in a state-approved career preparation program by the end of the reporting year or completed a state-approved career preparation program of fewer than 12 credits or the equivalent by the end of the reporting year and received an institution-awarded postsecondary degree, diploma, or certificate or a third-party-awarded employer certification and were not found to be enrolled in further education.

Numerators: Students in the respective denominators who were not reenrolled in further education and who were found to be employed with earnings greater than zero.

- Secondary: Students in the denominator who were not reenrolled in further education and were found to be employed with earnings greater than zero.
- Postsecondary: Students in the denominator who were not reenrolled in further education and were found to be employed with earnings greater than zero.

The SPAC suggested excluding students enrolled in further education who were also found to be employed because students may experience relatively depressed earnings if they are working while enrolled. For example, they may be employed as student assistants or in institutionally provided jobs to help them pay for school or other obligations. Some members noted, however, that students in certain disciplines may have relatively higher earnings while enrolled because their enrollment is a condition of their employment. Examples are fire fighters or law enforcement officers seeking certifications as a part of their job requirements. The SPAC agreed that these issues would be discipline specific and should be considered if an earnings indicator is adopted.

Trimming data

In UI wage records it is not uncommon to find individuals with an employment record for a quarter, but who have zero reported earnings for that employment. In most cases examined, zero wages represent an error: the affected individuals were employed but their earnings were incorrectly reported. SPAC members noted that including wages of zero in an earnings calculation could result in misleading

information, but suggested further discussion before making a final decision. Removing values of zero is related to the general issue of statistical “trimming,” in which reported values that are improbably low or high are excluded from calculations. The SPAC noted that there are statistical procedures concerning trimming data that should be considered; however, any trimming rules would have to be applied consistently across states to support data comparability.

Comparability and unevenness among states

Even if states use standard trim rules and common data sources, they are still significant differences among state economies, industries and opportunities, CTE programs, and prevailing and minimum wages. *WIA* addresses these differences by applying statistical techniques that could be considered for application in *Perkins*.

Method

States should collect employment data through administrative record matches using student information systems, state UI wage reports, WRIS2, and FEDES.¹⁹ As noted for the success rate, states without access to administrative data should pursue alternate methodologies supported by guidance to ensure comparability and validity. States should collect reenrollment data through their SLDS secondary and postsecondary linkages and the NSC.

Impact evaluations

The SPAC noted that the objectives outlined in the *Blueprint* could be supported by periodic impact evaluations that examine the value added and return on investment of CTE programs. Such studies could be practice or program oriented and national or regional in scope.

Timing

SPAC members suggested that the timing of earnings data collections should be coterminous with any employment metrics. While the time periods for the data collections should, to the extent feasible, coincide with those required for *WIA* programs, members suggested considering longer term career objectives of CTE programs when making decisions about timing.

Expressing earnings levels

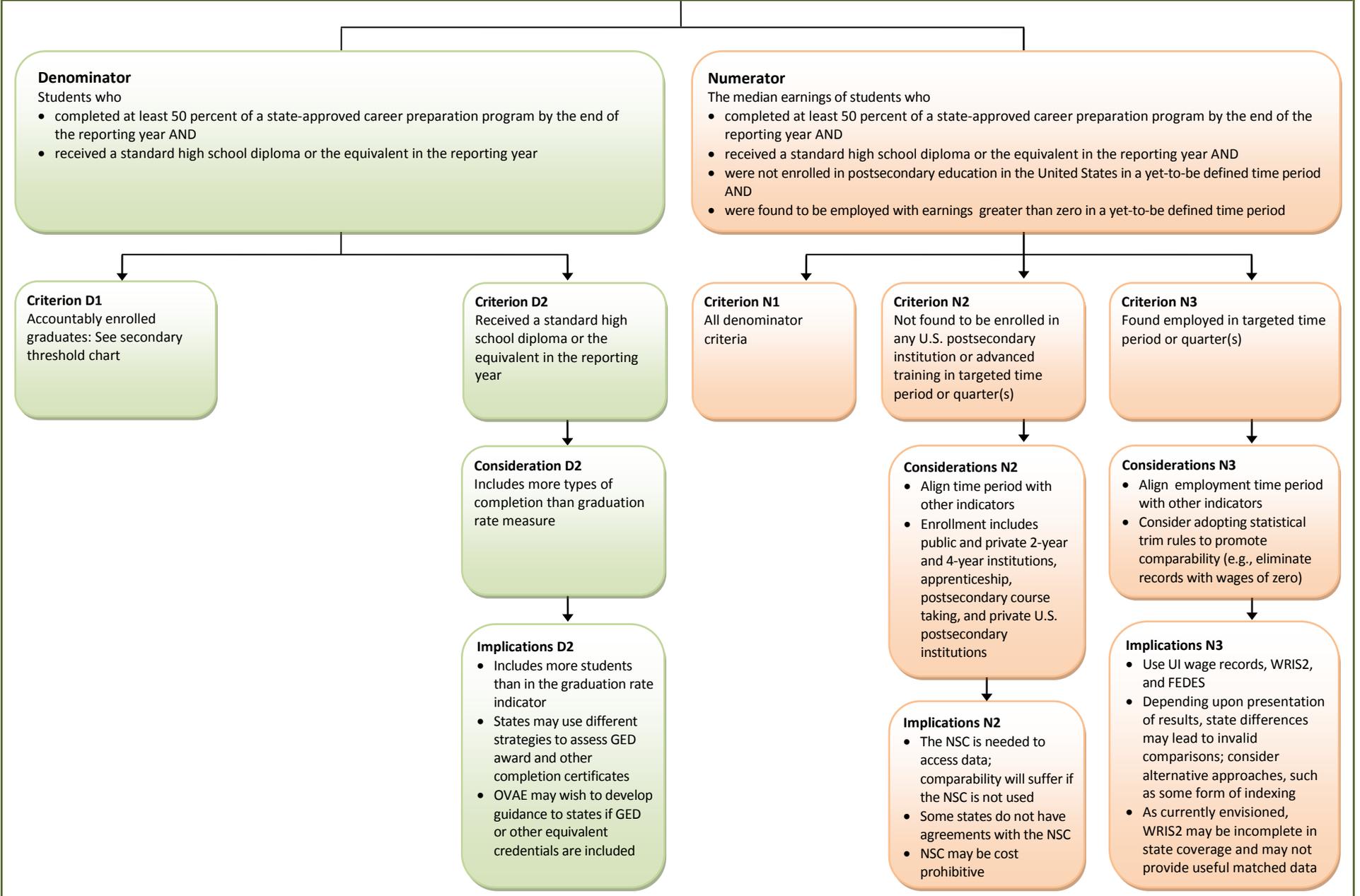
SPAC members did not discuss in detail how earnings levels should be presented, although members generally supported calculating median earnings for cohorts of students. Available data resources generally focus on quarterly earnings levels, although data users are usually more familiar with concepts like wage rates or weekly, monthly, or annual earnings. None of these more familiar levels can

¹⁹ The first version of WRIS was designed to support state *WIA* performance reporting and WRIS2 was designed as a state data exchange system. While WRIS2 is voluntary, it can provide access to UI wage report data across multiple states and 23 states are currently participating in WRIS2. There may be limitations to state access and use of WRIS2 data, however.

reasonably be calculated from quarterly data. For example, it is not wise to impute annualized earnings based on quarterly wage record data by multiplying the quarterly amount by four. To address this issue, earnings could be reported by quarter and reviewers will gradually become more familiar with the concept. An alternative may be to collect and report four quarters of earnings data on cohorts of students following their exit from programs. The adoption of such a process, however, will introduce considerable lag time into the reporting of these data.

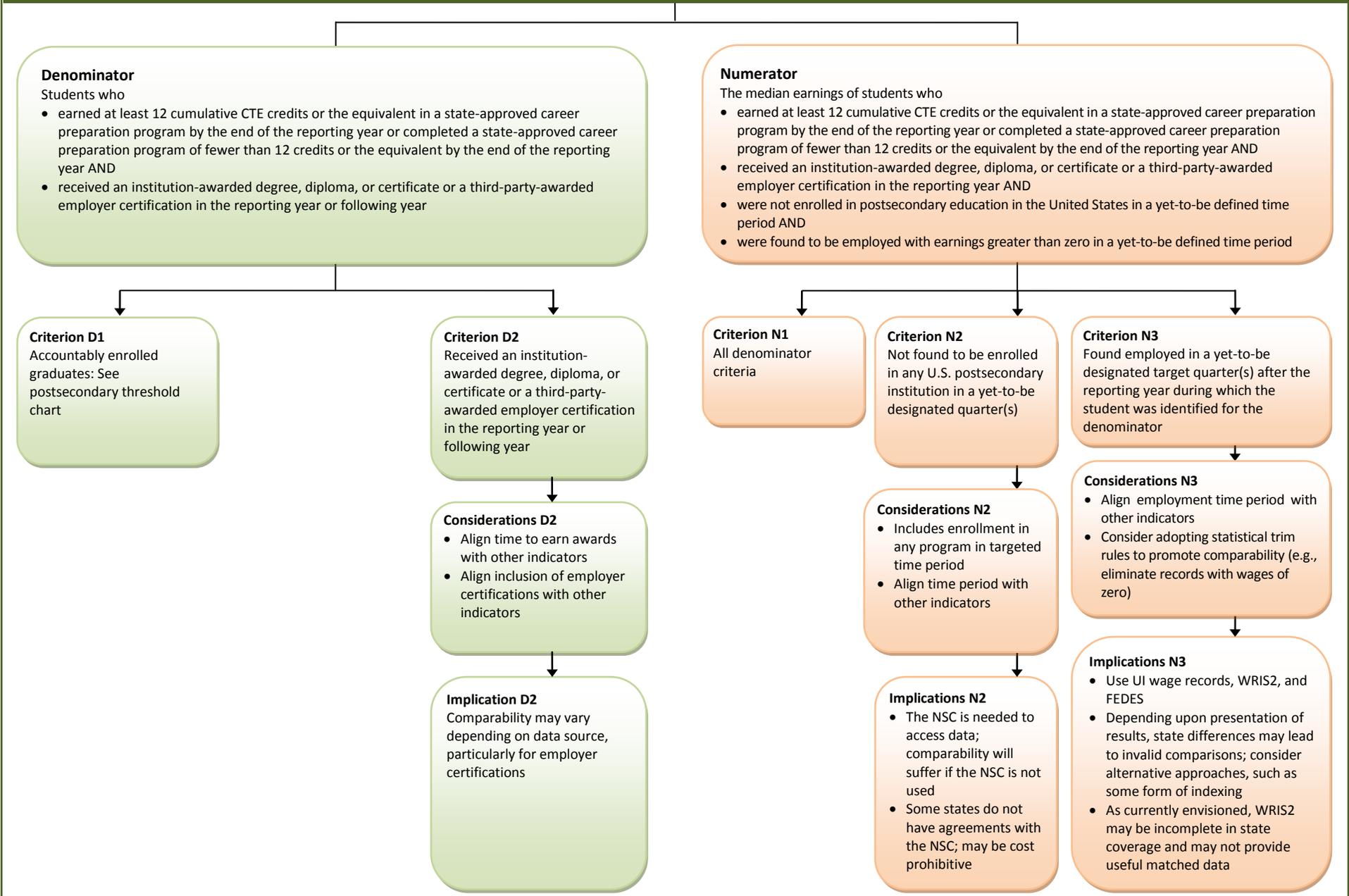
SECONDARY HYPOTHETICAL RATE OF POST-PROGRAM EARNINGS

Median earnings of accountably enrolled secondary students who were found to be employed during a designated time period



POSTSECONDARY HYPOTHETICAL RATE OF POST-PROGRAM EARNINGS

Median earnings of accountably enrolled postsecondary students who were found to be employed during a designated time period



Additional Indicators

The Department charged the SPAC with examining the thresholds and the six secondary and postsecondary indicators discussed above. As the SPAC deliberated, they identified a *Perkins IV* indicator that they were not asked to examine, but that members suggested should be included for secondary education in any future *Perkins* accountability system. Members also noted indicators that could provide important internal information to states, but for which they do not want to be held accountable to the Department. During the course of discussion the Department also released its *Blueprint*, which included several progress indicators upon which state and local grantees would be required to report, though no performance levels would be negotiated.

The following section describes these additional indicators and related issues the SPAC identified during brief discussions. While the SPAC was unable to devote significant time to the additional indicators, they are included here for future Department consideration.

Technical Skill Attainment

SPAC members representing secondary education suggested including an indicator of technical skill attainment at the secondary level. Members' opinions differed about including technical skill attainment as a negotiated indicator, with some suggesting that negotiating an adjusted level of performance would reinforce the indicator's importance at the state and local levels. Others advocated reporting technical skill attainment without a negotiated level of performance. They suggested that technical skill attainment is a highly informative indicator of student progress, but there is substantial variation in how it is reported among states, and some states may have difficulty acquiring the information for all students.

Some SPAC members contended that secondary students are expected to learn technical skills through the secondary portion of their POS, and technical skill attainment should therefore be assessed. Technical skill attainment has become critical to program improvement at the secondary level in some states, and many states have worked hard since 2006 to implement technical skill assessment systems and to build statewide capacity for their use. In addition, technical skill assessments are sometimes designed in collaboration with business and industry. Businesses provide context and standards for assessments and are using attainment of the certificate to award internships and differentiated pay to students.

Internally Reported Indicators

SPAC members noted additional indicators that may be of interest to federal and state education agencies; federal, state, and local policymakers; and local institutions and school districts. SPAC members agreed that, while the following indicators provide additional detail and information about the experiences and outcomes of CTE students, they should not be included as indicators that are reported to the Department. The four indicators listed below provide information that could inform state and local decision making, however, and are documented here for reference by state and local education agencies.

Academic attainment

As states adopt the Common Core State Standards and put new assessments in place, CTE students in 10th and 11th grades will be taking those assessments. Assessing the academic attainment of CTE students and comparing it to that of all students could inform states about the effects of CTE on academic attainment.

Employability skills

“College and career readiness” is a widely used term, but all states may not have mechanisms to define and assess career readiness. In an effort to consolidate and disseminate information on employability skills, in March 2010 OVAE initiated its *Support for States Employability Standards in CTE and Adult Education* project. Project work culminated in the development of an Employability Skills Framework and website that puts forward a common understanding of employability skills supported throughout the U.S. government. The website includes an interactive framework that organizes identified skills; an online tool to inform the selection of an employability skills assessment; profiles of state, local, and employer-led skills initiatives; and links to related initiatives. The website can be accessed at: <http://cte.ed.gov/employabilityskills/>.

Time to degree/credential

Understanding how long CTE students take to earn a credential could be very helpful as states and institutions design initiatives to increase persistence and completion rates.

Momentum points

Research on “tipping points” and “momentum points” could offer states and local schools and institutions a resource for analyzing student experiences and outcomes.

Progress Indicators Related to the Department’s Blueprint

As part of the *Blueprint*, the Department is proposing a set of progress indicators upon which state and local grantees would be required to report, though no performance levels would be negotiated. These indicators include

- number of dual credits earned;
- CTE credits earned that meet high school graduation requirements;
- number of stackable credentials earned; and
- work-based learning opportunities completed.

Department representatives noted that remediation—in relation to the transition from secondary to postsecondary education—is also of interest to the Department.

SPAC members offered suggestions regarding the purpose, use, and considerations associated with each indicator.

Number of dual credits earned

Several members noted that reporting how many students earn dual credit or how many dual credits are earned is a good way of presenting how CTE has a positive effect on students, including giving students a head start in postsecondary education, preparing them for its rigors, and saving families money on college. Others, however, questioned the purpose of a dual credit indicator, suggesting that if CTE focuses on an at-risk and disadvantaged population, an assessment of dual credit may not represent that population as well as other indicators. Instead they suggested that perhaps the focus should be on other success points or earning a diploma.

If a dual credit progress indicator is included, the SPAC suggested clarifying the definition of dual credit and its role in *Perkins* accountability. Dual credit may meet differing requirements, including CTE program requirements, high school graduation requirements, and postsecondary certificate or degree requirements. Students may earn college credit but not necessarily high school credit in some programs, and Department guidance would be needed to determine what types of dual credit would be eligible. A credit also may have a different meaning for different schools. In addition, not all states offer dual credit and members wondered if dual credit would be required if a progress indicator were added. Policies in some states may support or limit dual credit opportunities. Finally, SPAC members noted that many states will be better able to assess the number of dual credits earned once state longitudinal data systems are in place and functional.

Number of stackable credentials earned

Several members indicated that their state's postsecondary institutions offer short-term, "stackable" credentials that add up to a one- or two-year certificate or associate's degree. Students can earn credentials, enter the workforce with a credential that has value in the labor market, and return to school and continue their education. The value of stackable credentials in the labor market may vary, and some SPAC members suggested that standards for what constitutes an eligible stackable credential would be needed if an indicator were added.

Work-based learning opportunities completed

Members noted that work-based learning opportunities are widely offered, particularly in postsecondary education, and vary in their scope and intensity. Opportunities could include volunteering, internships, job shadowing, required hours of on-the-job training, and many other activities. If an indicator were added, more discussion would be needed about its purpose as well as the definition and parameters for eligible work-based learning opportunities.

Conclusion

The upcoming reauthorization of *Perkins IV* offers Congress an opportunity to expand upon and refine performance reporting expectations for states and local CTE grant recipients. OVAE convened the State Perkins Accountability Congress in November 2011 to obtain suggestions for refining accountability requirements and addressing data collection and reporting challenges. The SPAC invested substantial time and effort in examining potential thresholds and core indicators, and this report reflects their work as of December 2012.

The SPAC's suggestions fell into the following three broad areas and could substantially increase comparability in *Perkins* data collection and reporting practices.

- *Establish student participation thresholds for reporting accountability results*—Students in high school and postsecondary education may take a single CTE course with no intent to continue in a program of study, and their outcomes—positive or otherwise—may not reflect the effects of CTE. SPAC members strongly suggested that students meet a minimum threshold of CTE participation to be included in *Perkins* accountability results. Assessing the experiences outcomes of these “accountably enrolled students” may offer a more accurate picture of CTE programs and their impact on student outcomes.
- *Develop clear measures of performance indicators*—*Perkins* core indicators, as outlined in the legislation, are high-level markers for the information Congress wants about performance. The measures of those indicators, i.e., the exact information that will be reported, must include details about what states and grantees are expected to report, such as time lines and populations. It also is important to clarify the purpose of each measure to ensure that appropriate measurement options are considered and selected so that the most relevant information can be provided.
- *Define terminology*—The underlying components of each population definition and measurement approach are complex and interrelated and could be interpreted differently by states and local grantees. Guidance or regulations that include detailed explanations of terms and data collection and reporting requirements will promote comparability among states as well as the validity and reliability of reported results. While the SPAC investigated and offered detailed suggestions on a broad range of topics, members were unable to discuss every item of interest. The SPAC did not have time to fully explore the potential employment and earnings indicators, and questions arose regarding whether these indicators should apply to both secondary and postsecondary education and if comprehensive data are available and accessible to all states. The SPAC also had limited opportunity to

address issues concerning postsecondary remediation and whether that information should be captured and, if so, reported as part of a core or additional indicator.

The Department also may wish to gain more insight into some SPAC suggestions to ensure that its recommendations and future guidance reflect stakeholder perspectives and Congressional and Departmental priorities. For example, the Department has shown interest in further dialogue concerning the 50 percent completion level for the secondary threshold, suggesting there may be value to including more students than those who have completed half or more of an eligible program's standards. The SPAC also suggested considering secondary technical skill attainment as an additional indicator, and the Department would like to discuss the potential for aligning that indicator with emerging priorities for competency-based assessment.

The State *Perkins* Accountability Congress successfully engaged the Department and CTE stakeholders in thoughtful consideration of the potential structure, benefits, and challenges of a future *Perkins* accountability system. The Department may wish to foster future dialogue—before and after reauthorization—by reconvening the SPAC or by engaging CTE practitioners in discussions at Department-sponsored events or scheduled national professional and stakeholder meetings.