

## CTE Investors, Explorers, and Concentrators: What Does the Research Say?

### Summary

H.R. 5587's proposed definition for secondary "CTE concentrator" raises concerns around the appropriateness of the definition for performance measures, as well as comparability with research and current federal and state data systems.

### CTE Student Populations as Defined in the Research

Secondary CTE students are currently classified in the research literature by the number and type of courses in which they enroll. The most common classification scheme includes the following categories<sup>i</sup>:

<b>Non-investors</b>	<b>Nonparticipant:</b> fewer than 1 occupational credit earned
	<b>Sampler:</b> 1 to fewer than 3 occupational credits
<b>Investors</b>	<b>Explorer:</b> 3 or more occupational credits, but no single occupational area with 3 or more credits
	<b>Concentrator:</b> 3 or more occupational credits in one area

The latest trend data from the National Center for Education Statistics shows that in 2009:

- 19.1 percent of all high school graduates had earned 3 credits in a single occupational area;<sup>ii</sup>
- 35.5 percent of all high school graduates had earned 2 credits in a single occupational area;<sup>iii</sup> and
- 36.2 percent of all high school graduates had earned 3 credits in *any* occupational area (including those earning 3 credits in a single area and across multiple areas).<sup>iv</sup>

While these definitions have not appeared in statute in the past, states have used variations of the secondary CTE concentrator definition above to determine the population of students to which to apply the law's accountability measures. As of the 2012-13 school year, states used a number of approaches to define secondary CTE concentrators, including:

- A student who earned three or more credits/completed 3 courses in a single CTE program area (with minor variations) – 18 states;
- A student who earned two or more credits/completed 2 courses in a single CTE program area (with minor variations) – 14 states;
- A student who completed 50% or more of a defined secondary program sequence – 12 states; and
- Other definitions, ranging from 1 to 4 credits or a mix of requirements – 7 states.

### H.R. 5587's Current Definition for Secondary CTE Concentrator

The House Perkins reauthorization bill defines a secondary CTE concentrator as a student who:

- Completed 3 or more CTE courses; or
- Completed at least 2 courses in a single CTE program or CTE program of study.

### H.R. 5587 Secondary Concentrator Definition Concerns

The current definition incorporates two very distinct student populations—those exploring various career opportunities ("explorers" in the research literature) and others who are invested in a single career pathway ("concentrators")—which undermines the law's ability to measure a common student population.

- Congress desires to renew Perkins to improve the educational and labor market outcomes of CTE students. However, including "explorers" as part of the concentrator definition significantly limits the ability to evaluate and assess CTE programs' impact on these outcomes.
- Incorporating two separate student subpopulations into a single definition creates inconsistencies with prior research, limits the ability of the field to conduct longitudinal analyses of CTE student performance, reduces the ability of the field to speak a common language, and undermines the comparability of Perkins data and outcomes. The use of the term "concentrator" to mean something different than current research and practice is very confusing to educators on the ground.
- The definition in H.R. 5587 already expands the population considered a "concentrator" to those enrolling in only 2 credits in a program, up from most current classification schemes and from the definition currently utilized in over 1/3 of states, which use 3 credits in a program area.

- From a practical standpoint, using “explorers,” who by definition are not invested in a particular field of study, to measure student concentration in a program that is nontraditional for their gender simply does not work statistically—there would be no program to assign explorers to in order to determine if they were in a non-traditional pathway.
- Further, students who have only enrolled in one course within a program area cannot be reasonably expected to have mastered the skills of that program—as would be required for industry certification, sustained work-based learning experiences, or any other program-specific outcome. As a consequence, the “explorer” component for the secondary concentrator definition is also problematic for currently proposed measures of “program quality,” where students would be included in the denominator but would have little or no opportunity to be counted in the numerator of the measure.
- In addition to the measures of program quality and non-traditional concentration, other measures will also be skewed as a result of incorporating CTE “explorers” into the definition for a secondary CTE concentrator, due to the distinct student populations. For example, for placement, explorers would be by definition less likely to gain employment immediately in a particular field.
- The shift in focus away from actual CTE concentrators will undermine stakeholders’ ability to build coherent pathways and meet employer needs by reducing the focus on and importance of this population, setting back current improvement efforts that use a sequence of rigorous CTE courses as a framework for CTE delivery.

### **Suggested Solutions**

The first solution proposed below is our most highly recommended option, as it would address all of the concerns noted above. The remaining suggestions only address some of the concerns, but would be an improvement, and are listed in order of most-to-least effective. Regardless of which proposed solution below is used, the question of differentiating student outcomes between CTE concentration and CTE exploration is one of interest to the CTE community. As such, this could be included as a research topic in the National Activities portion of future legislation (Sec. 114), to allow research on the differences between these groups that also controls for other student population characteristics.

1. **Strike clause (i) from H.R. 5587’s secondary concentrator definition and create a uniform definition that focuses on those students actually “concentrating” in a CTE program.**  
*This solution would reduce confusion and ensure data comparability and applicability, while still increasing the population of students captured by the definition.*
2. **Strike clause (i) from the secondary concentrator definition and repurpose the language in a new statutory definition for “Secondary CTE Explorer.” For the purposes of secondary Perkins accountability, use the new concentrator definition for all measures, and allow states to choose whether to include “explorers” within their accountability and reporting systems where the “explorer” definition is technically feasible and appropriate (i.e. current secondary measures in H.R. 5587 except for non-traditional concentration and program quality).**  
*While not quite as simple, this change would align the definitions with current research and allow for their applicability to appropriate performance measures.*
3. **Separate the secondary and postsecondary components of the CTE concentrator definition, leaving the postsecondary definition as is. For the secondary component, rename the definition as a “Secondary CTE Investor” to align with current research terminology. Clause (i) would then represent “CTE explorers” and clause (ii) would represent “CTE concentrators” as the terms are currently understood in the CTE community. The accountability measures could then be structured to reference the populations most appropriate as outlined above.**  
*This change represents another approach to aligning the definitions with the research literature terminology and ensuring applicability to appropriate performance measures.*
4. **Maintain the current concentrator definition, but restrict applicability of the non-traditional and program quality measures, at minimum, to those students who meet the criteria of clause (ii).**  
*While this change would not address confusion around the concentrator, investor, and explorer terms, it would address the applicability of the definition to appropriate performance measures.*

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<sup>i</sup> [http://www.rti.org/sites/default/files/resources/cte-trends\\_final.pdf](http://www.rti.org/sites/default/files/resources/cte-trends_final.pdf)

<sup>ii</sup> <https://nces.ed.gov/surveys/ctes/tables/h127.asp>

<sup>iii</sup> <https://nces.ed.gov/surveys/ctes/tables/h127.asp>

<sup>iv</sup> <https://nces.ed.gov/surveys/ctes/tables/h123.asp>