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A Perspective on the Intersection of the CEDS 4.0 CTE and Workforce Domains

INTRODUCTION

I have participated in CTE research studies and technical assistance forums more or less continuously for 49 years. This long-range perspective is important here because few, if any, of the high-impact questions about the intersection of CTE and the workforce have changed over these five decades. What has changed is our data-driven capacity to answer some of these questions with more clarity and decision-making relevance.

I begin with a few basic points:

- CEDS 4.0 is not a data set; it is a dictionary of data element labels and definitions that are available for voluntary use.
- So, when we hear or see references to CEDS 4.0 *use*, this has to be understood as use of labels and definitions, not use of a data source or multiple sources.
- Since adoption and use of CEDS 4.0 data element labels and definitions is voluntary, the timing, scope and integrity of label and definition use must be understood.
- Adoption of CEDS 4.0 will rarely be an all-of-nothing proposition; any combination of CTE and/or Workforce domain entities, and elements within these entities, can be selected.
- It is important to know whether voluntary adoption flexibility ends, and mandated adoption begins, at a defined spatial and/or organizational level; and when and where this occurs.
- Adequate documentation of CTE and workforce administrative data element content remains uneven. Progress has occurred, but it is often difficult to accurately map when collection using a known data element definition started; and whether and when this definition changed.

- Migration from one data element definition to another may, or may not, matter; but we like to know when the change occurred so we can make an informed decision about relevance and importance.
- Quality control auditing also remains uneven. The precision of alignment of data collected with an applicable definition may not be known. My experience has been that at each ascending level of CTE granularity—from course section to instructor to course to program to institution to state and finally to national—unobserved quality adherence compromises occur.
- The ascending administrative data recording steps in the workforce arena involve unobserved quality adherence compromises too. In each case—the CTE domain and the Workforce domain—data quality deficiencies may, or may not, matter.
- A pertinent question to answer then, in anticipation of any proposed use of administrative data, is: Is the quality of the data good enough for this intended use? Since we are interested here in practical alignment of CTE and workforce administrative data element labels and definitions, it is important to remember that a data quality deficiency in one source has to be carried through how it is going to be used in combination with other elements to make an informed decision whether the pooled data are good enough for the intended use.
- My phrase “*intersection* of the CTE and Workforce domains” is important. The phrase “transition from CTE to the workforce”, describing a one-way one-time flow from education to employment still has relevance in some, but not all, applications of the CEDS 4.0 domains and data element definitions.
- The single word *intersection* conveys a clear visualization of entry from a point of origin and departure to a destination. The relevant flow, using CEDS 4.0 CTE and Workforce domain labels and definitions, may be from a CTE entity to a Workforce entity, or *vice versa*. Adding to the complexity that may be encountered, the flow can be from multiple concurrent entities to multiple simultaneous entities within or between the CTE and Workforce domains. I encourage you to sketch side-by-side matrices of the CTE entities and the Workforce entities, and then engage in a thought exercise about how many different origin-destination pairings are possible. Having completed that exercise, put aside the one-to-one limitation of the word *pairings* and think about how often multiple simultaneous CTE and/or Workforce statuses occur.

The CEDS 4.0 CTE and Workforce domains, entities and element labels and definitions compose a valuable toolbox, but our dexterity in the proper use of these tools varies. Improper use can cause unexpected harm; but, unlike the personal danger involved in first-time chain saw use without following instructions, the harm from improper use of CEDS 4.0 tools will often fall on others, not on the tool user. Example: Counseling a student to prepare for a single entry-point occupation, without an appreciation for the limitations of available occupation-specific employment opportunity projections. A projection is not a forecast. A projection involves if-then assumptions (stated or unstated). A forecast is a statement about what is expected to happen; a best guess (informed or not).

Before opening and rummaging around in the CEDS 4.0 CTE and Workforce domains, I encourage:

- Starting with drafting of a question to be answered.
- Tweaking the wording of the question to improve the likelihood that a plausible range of answers can be connected to, and be expected to have an impact on, an important policy and/or administrative issue.
- Advancing from this refined question to the CEDS 4.0 CTE and Workforce domains, entities and elements to assess which combination of defined elements aligns best with the question to be answered; that is, offers a satisfactory prospect that delivery of resulting new information, at the right time to the right recipient(s), will contribute to a more informed action (or decision not to act). A more informed action does not translate into a better, or preferred, outcome for everyone. So, it will be prudent to anticipate what individuals and organizations might think of themselves as winners or losers if the more informed action, or inaction, happens. This thought exercise serves as a feedback loop that might change which data element definitions are thought to be adequate for the intended application.

I close with expression of some thoughts about how adoption of CEDS 4.0 data elements aligns with the continuum of today's state integrated data system (IDS) capabilities.

- To the extent that a state IDS embodies longitudinal features—that is, it enables unit-record linkage through time—it is particularly important to know what data element definitions apply to what time segments of the assembled database. CEDS 4.0 includes some new data elements, and other retained element revisions, in the CTE and Workforce domains. Looking ahead, care must be exercised to learn whether and how these changes will impact what questions can be answered with sufficient use-specific clarity and reliability
- Prospects for state longitudinal data system and CEDS sustainability will be improved if each pays close attention to what is happening on the other's turf. The business case for continued investment in each will be strengthened if there is shared development and broadcasting of compelling use-value stories. Widespread adoption of common data element definitions will expand opportunities for rigorous study of innovative pilot initiatives undertaken in multiple institutional and spatial contexts. At the same time, lengthening of the time span coverage of longitudinal analysis capabilities will improve our ability to study the sensitivity of initiative successes to contextual changes—demographics, economic circumstances, and external risks (e.g., personal safety and health).