Cradle-to-Career Data and Tools Advisory Board Staff Report

Date Report Issued: September 17, 2024

Date Report Modified: September 25, 2024

Attention: Members of Data and Tools Advisory Board

Subject: **Digital Access to Learning Proposal (Agenda Item Four)**

Staff Contact: Ryan Estrellado, Director of Data Programs

At this meeting, the Data and Tools Advisory Board (DTAB) will have the opportunity to listen to the proposal submitted by DTAB Member Borgen and determine the next steps for the proposal.

Requested Action:

After review and consideration of the proposal, Staff recommends the DTAB consider whether to advance this proposal to the feasibility study phase, with or without any amendments to the proposal. Potential motion language could look like one of the following:

- ❖ Move to approve (insert proposal name) to advance to the Office to conduct a feasibility study with no amendments.
- ❖ Move to approve (insert proposal name) to advance to the Office to conduct a feasibility study, including amendment(s) (insert amendment letter or letters).

Authority for DTAB:

Pursuant to [Education Code Section 10865 (b)(1)(A)](#), "the responsibility of the DTAB is to examine whether the data system is providing actionable information and identifying ways to improve access to that information."

Scope of Proposals for DTAB:

As outlined on page 32 of the [Governance Manual](#), DTAB can address a significant gap regarding whether the data system is providing access to actionable information via a proposal process by recommending a) changes to

the data request process, b) changes to tools such as dashboards or operational tools for students, and c) the addition or removal of data points to the P20W Data System.

Background:

The Governance Manual states that "at the fall [... DTAB] meeting, up to three proposals that were prioritized in the pre-meeting survey will be considered" (page 34). The DTAB member who submitted the proposal will present the idea to the DTAB, followed by public comment. Then the DTAB members will discuss the proposal to evaluate whether the proposal would effectively address the issue that has been flagged and would meaningfully advance the work of Cradle-to-Career Data (C2C). DTAB members may make amendments to the proposal.

Member Proposal:

The proposal entitled Digital Access to Learning, submitted by Member Borgen, advanced as one of the top three proposals and can be found in Attachment A. Staff from the Office worked with Member Borgen to provide greater specificity about the suggested items and background information. This background document can be found in Attachment B.

At the DTAB meeting on October 1, the DTAB will receive a presentation from Member Borgen, discussing their proposal, followed by public comment. DTAB members will discuss the proposal, discuss the amendment forms received, and vote on whether the proposal should be advanced to the Office, to conduct a feasibility study.

Proposal Amendment:

The DTAB proposal amendment submission window was from September 17-23, 2024. The Office received one Amendment (Amendment A), submitted by Member Borgen, which can be found in Attachment C.

Cradle-to-Career Data and Tools Advisory Board Proposal Form

Instructions:

Per the Governance Manual proposal forms submitted will address significant gaps regarding whether the data system is providing access to actionable information. Please note there should only be one proposal per form.

Name:

Jason Borgen

Proposal Title: *no more than 50 characters*

Digital Access to Learning

- By checking this box, I understand that if my recommendation is one of the top recommendations identified by the Advisory Board, I will be presenting my idea at the Fall Advisory Board meeting.

Type of Proposal[1]:

- Changes to practical tools for students *(Complete section one)*
- ==Adding data points not available through the P20W data set or adjusting (including the removal of) the existing P20W data points *(Complete section two)*==

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[1] The C2C Governance Manual notes that DTAB members can also submit recommendations related to the data request process and changes to tools such as dashboards. As the data request process and the dashboards are not yet live, those sections have been removed from the 2024 version of this form.

● Please note a proposal form(s) can recommend adding one data point or several clearly related data points to the data system.

Section One: Changes to Practical Tools

1. What is the nature of the gap regarding access to actionable information?

2. What type of tool should be developed?

3. How would a tool address the gap?

4. Who would be the likely user(s) of the tool?

5. How does the tool relate to the mission and vision of C2C?

Section Two: Adding Data Points Not Available Through the P20W Data Set or Adjusting the Existing P20W Data Points

1. Please state the research question of interest that cannot be fully addressed with the existing data elements in the P20W Data System.

> How does access to digital tools and broadband Internet affect learning outcomes and success towards graduation and career-readiness?

2. How does this research question relate to the mission and vision of C2C?

> In order to provide insights into student milestones, digital equity is essential to ensure students reach their full potential. The partnership with the state

department of technology and the Digital Equity Plan connects the goals of the state plan with data elements that can be provided by C2C through the following areas:

1. Identifying Gaps in Access

Research into digital equity can help identify which student populations lack adequate access to digital tools and broadband Internet. This is often linked to socioeconomic status, geographic location, and other factors. By understanding where these gaps exist, policymakers and educators can target resources and support to those who need them most.

2. Understanding Impact on Learning Outcomes

Access to digital tools and the internet is increasingly essential for modern education. Research can explore how limited access impacts learning outcomes, such as lower academic performance, decreased engagement, and reduced opportunities for remote learning. These insights can inform interventions that ensure all students have the tools needed for academic success.

3. Addressing the Digital Divide

The digital divide refers to the gap between those who have access to digital technology and those who do not. By researching digital equity, educators and policymakers can better understand the barriers that contribute to the digital divide, such as cost, lack of infrastructure, or limited digital literacy. This understanding is critical for developing strategies to bridge the divide, ensuring all students have equal opportunities.

4. Enhancing Digital Literacy

Digital literacy is a key component of student success in the 21st century. Research can highlight the importance of teaching digital skills and how lack of access to technology can hinder the development of these skills. This information can guide curriculum development and professional

development for educators, helping to integrate digital literacy into education at all levels.

5. Supporting Career Readiness

Digital tools and internet access are essential for preparing students for the workforce. Research can explore how digital equity affects students' readiness for careers, particularly in fields that require technological skills. By understanding these connections, educational programs can be tailored to better prepare students for the demands of the modern job market.

6. Informing Policy and Resource Allocation

Insights from research on digital equity can inform policy decisions and the allocation of resources. For example, they can justify investments in broadband infrastructure, device provision, and digital literacy programs. Policymakers can use this data to advocate for funding and initiatives that promote digital inclusion.

7. Promoting Social and Educational Equity

Digital equity research aligns with broader goals of social and educational equity. By ensuring all students have access to the same digital resources, we can work towards a more equitable education system where all students have the chance to succeed, regardless of their background.

3. Please propose additional data element(s) needed in order to successfully address the research question of interest.

In School Access:
- K12HSN school connection speeds
- Community College and UC calREN Connection speeds
- eRate adoptions rates by district
- Devices provided to students in class ratio

At Home Access:

- ACP/ECF/Internet for All adoptions
- Devices provided to student for home use
- Device access at home meeting minimum requirements for distance learning and/or access to online curricula
- The California Public Utilities Commission (CPUC)Broadband Map of connected areas/schools

4. Please verify that the proposed data element(s) do not already exist in the P20W Data System.

There is no connection to digital technologies, connectivity, nor broadband listed in the P20W data sets.

5. If the P20W Data System does not currently include the proposed data element(s), can the proposed data element(s) be derived from the existing data element(s) in the P20W Data System?

N/A

6. If the P20W Data System does not currently include the proposed data element(s), are there existing data element(s) closely related to the proposed data element(s)? If so, please list them and why they are not sufficient to answer the proposed research question.

No.

7. C2C keeps a [repository](#) of previous data elements that were either a) considered during the planning process or b) proposed through the mechanisms as outlined in the Governance Manual, but were ultimately not included in the P20W, along with related feasibility studies. Do any of the data element(s) being proposed overlap with the data elements in this repository? (New proposals can build on or duplicate prior proposals. It is helpful for proposers to share that context, including prior related feasibility studies.)

N/A

8. Are the proposed data element(s) already collected by a state-level entity? For data element(s) already collected, please answer question nine. For data element(s) not collected, please answer question ten.

> Some are, i.e. CPUC

9. [For proposed data element(s) already collected] To the extent possible, please share details pertaining to the proposed data element(s). Relevant details may include but are not limited to: a) corresponding entity that collects and houses the data element(s); b) specific variable name(s) used in the originating data system; and c) timeframe available.

> - K12HSN school connection speeds – bandwidth speeds, collected annually
> - Community College and UC calREN Connection speeds – bandwidth speeds
> - eRate adoptions rates by district – Universal Service Administrative Company – collected annually
> - Devices provided to students in class ratio (Tech budgets)
> - ACP/ECF/Internet for All adoptions – CETF – ongoing collection
> - Devices provided to student for home use – Survey/Registration survey Data – varied collection
> - Device access at home meeting minimum requirements for distance learning and/or access to online curricula -Survey
> - The California Public Utilities Commission (CPUC)Broadband Map of connected areas/schools – ongoing collection

10. [For proposed data element(s) not collected] Please propose institution(s) that would be most suited for the new data collection effort.

> N/A

11. Please explain the desired level(s) of grain size for each data element proposed. (i.e., individual-level, institution-level, or other aggregated levels)? Multiple grain sizes may be requested for each proposed data element.

Some individual levels some institutional level. Disaggregated by region, demographics, type (urban, suburban, rural, etc). Correlated to student/institution academics, engagement, behavior, and attendance, college entry, etc.

12. Please explain the intended use case(s) for the proposed data elements (i.e., dashboards, query builder, or the research request tool)? Multiple use cases may be requested for each proposed data element.

These elements would support the alignment of the California Digital Equity Plan around Education and workforce development in a dashboard. Using these data sources they also would fit well in query builders to support research and justify funding allocations and priority areas to support areas that show correlation between digital access and student success as we well as college/career-readiness.

Digital Data: Background Information

This document provides background information to support prioritization of potential new data points for the Cradle-to-Career (C2C) Data System P20W data set. P20W data points include data uploaded directly by data providers, as well as metrics that are calculated from the information shared by data providers. P20W data points will be used to populate dashboards and a query builder tool. When the data request process becomes available, users may request other formulations of metrics that are generated from the information shared by data providers.

Staff from the Office of Cradle to Career Data (Office) worked with Advisory Board members who submitted proposals to provide greater specificity about the suggested item.

Proposal Name

Digital Access to Learning

Type of Data Point

Based on an initial review of the proposal, the Office notes that these items are data points that are not currently in the P20W data set.

Proposed Data Point Construction

In consultation with the Advisory Board member who proposed the data point, the Office operationalized the proposal to provide information on digital data by creating 11 metrics. The Office could utilize information from the California Public Utilities Commission (CPUC) California Interactive Broadband Map to generate some of these metrics or to create visualizations.

1) **K12 School Internet Access Connection Speeds** - Average internet connection speeds at a school site during the academic year:
   - Download speed is 0-99 Mbps
   - Download speed is 100-999 Mbps
   - Download speed is 1-9 Gbps
   - Download speed is more than 10 Gbps

2) **Public Postsecondary Connection speeds** - Average internet connection speeds at a college site during the academic year:
   - Download speed is 0-99 Gbps
   - Download speed is 100-399 Gbps
   - Download speed is 400G or more

3) **K12 district participation in federal eRate universal service broadband support program** - Whether the district receives federal funds to support digital access:
   - Receives support for telecommunications, telecommunications services and Internet access
   - Receives support for internal connections, basic maintenance of internal connections, and managed internal broadband services
   - Does not receive eRate support

4) **Proportion of students provided with digital devices for in-class use** - Number of students who have devices that are available in the classroom, compared to number of students in the district:
   - 0-20%
   - 21-40%
   - 41-60%
   - 61-80%
   - 81-100%

5) **Type of digital devices available to a student for at in-class use -** Type of devices that are available to students in the classroom:
   - Smart phone
   - Tablet
   - Windows, Apple, or Chromebook computer less than 5 years old
   - Windows, Apple, or Chromebook computer 5 years old or more

- No digital devices available

6) **Proportion of students who received federal support for digital access -** Number of students who participated in a federal program that subsidized the costs of digital connections or equipment, compared to number of students in the district or the postsecondary institution:
- 0-20%
- 21-40%
- 41-60%
- 61-80%
- 81-100%

7) **Proportion of students provided with digital devices for at home use -** Number of students who have devices that are available at home, compared to number of students in the district:
- 0-20%
- 21-40%
- 41-60%
- 61-80%
- 81-100%

8) **Type of digital devices available to a student for at home use -** Type of devices that students have at home:
- Smart phone
- Tablet
- Windows, Apple, or Chromebook computer less than 5 years old
- Windows, Apple, or Chromebook computer 5 years old or more
- No digital devices available

9) **K12 Student Cellular Service Access** - Type of internet access available at the student's home address during the academic year:
- 5G
- 4G
- Below LTE
- No cellular service available

10) **K12 Student Home Internet Access Connection Speeds** - Average internet connection speeds available at the student's home address during the academic year:
   - Download speed is at least 100Mbps
   - Download speed is less than 100Mbps

11) **Staff Capacity to Support Digital Literacy:** Number of staff supporting digital literacy and technology, compared to number of students in the district or the postsecondary institution:
   - Less than 1:300
   - 1:300 or more

Cradle-to-Career Data and Tools Advisory Board Amendment Form: Amendment A

Instructions:

Per the Governance Manual, Advisory Board members may make amendments to the three proposals that were prioritized in the pre-meeting survey. This form provides structure to amendments, ensuring they effectively address the flagged issue and meaningfully advance the Office of Cradle-to-Career Data's work. Please note there should only be one amendment per form. An amendment should **clarify** the original proposal.

Name:

Jason Borgen

Which proposal are you submitting an amendment for?:

Digital Learning

Identify which section should be amended (Check only one):

Section 1. Changes to the Data Request Process

- 1.1 What is the nature of the issue with the data request process?
- 1.2 What action should be taken to address the issue?
- 1.3 Who could benefit from this action?
- 1.4 Who would implement this action?
- 1.5 How does the action relate to the mission and vision of C2C?

Section 2. Changes to Tools Such as Dashboards or Practical (Operational) Tools

- 2.1 What is the nature of the gap regarding access to actionable information?
- 2.2 What type of tool should be developed?

- 2.3 How would a tool address the gap?
- 2.4 Who would be the likely user(s) of the tool?
- 2.5 How does the tool relate to the mission and vision of C2C?

Section 3. Adding Data Points Not Available Through the P20W Data Set or Adjusting the Existing P20W Data Points

- 3.1 What data point should be added or changed?
- 3.2 Who would use the data point?
- 3.3 How would the data point be used?
- 3.4 Who would provide the data point?
- 3.5 Does the data point already exist in a state-level data set or would it need to be collected by local institutions and reported to state agencies?
- 3.6 Which population(s) should be included in the data point? (such as K-12 students or workforce development participants)
- 3.7 How does the data point relate to the mission and vision of C2C?

What language do you want to change in the proposal?

Please add metrics as mentioned attachment Attachment B

What action do you want to take towards this language? (Check only one)

- Add language
- Clarify language/definitions
- Change the scope

What is your amendment for the proposal?

Update specific metrics related to digital learning

What issue does your amendment address?

Provide specific metrics that are standardized and aligned

How would your amendment resolve this issue?

Sets clear metrics not clarified in original proposal.

Provide specific actions the Office could take to implement this amendment:

Review the attachment B for metric for actual metrics to review for feasibility study.