Cradle-to-Career Data System: Final Report to the Legislature

June 2021

Contents

Section 1: Background

In 2019, the California Legislature authorized an 18-month planning process for the state's Cradle-to-Career Data System. The legislation created a framework for an unprecedented planning process that was both comprehensive and inclusive. The process led to the following distinguishing features for California's data system:

- Recognition that students, families, educators, and community leaders — in addition to policymakers and researchers — are change-makers who need access to relevant data and are key partners in interpreting the data that the system will produce
- Contextualizing education data with other information that illuminates the structural factors that can support equitable outcomes, such as access to financial aid, social services, and employment services
- Development that is streamlined by using readily available technology tools and existing state programs, rather than building a new data infrastructure from scratch

This framework was translated into detailed implementation recommendations through an extensive planning process. More than 200 people provided insights and expertise, drawn from the partner entities — state agencies and stakeholders identified in the legislation — and the intended users of the data system (see the appendix for a full list of planning process participants).

California's Cradle-to-Career Data System will be unique in the nation because it will deploy a three-pronged approach: operational tools that outline education and career options while clarifying individual progress toward those goals, analytical tools that track trends and provide comparisons between groups, and a significant focus on community engagement. This approach recognizes that students and teachers need different types of information than researchers and policy analysts, and that community members can be partners if given outreach and training in interpreting and utilizing the information that the data system produces. Finally, with the system expanded beyond educational data to include social service, financial aid, workforce training, and employment information, users will be better equipped to understand equity gaps in context. The broader data set means that solutions are more likely to focus on structural factors that can be addressed through policies and investments, rather than focusing narrowly on student characteristics.

In December 2020, the Cradle-to-Career Data System workgroup submitted a report to the Governor's Office and the Legislature that clarified how the proposed model could be implemented, covering the majority of the topics requested in the legislation (see the appendix for a crosswalk and links to related items). The report referenced dozens of documents that will help to operationalize the recommendations, such as the workflow for the data request process, actions necessary to scale existing state programs to strengthen tools for students and families, and detailed roles and responsibilities for both the data system's governing board and the Government Operations Agency (GovOps), the entity that will host the data system.

In April 2021, the workgroup prepared an update that described additional recommendations that would support implementation of the proposed model, including data definitions and privacy and security policies.

Now, this final report addresses the remaining required recommendations, including a community engagement strategy, legal templates, and additional privacy and security documentation.

As the planning process concludes, the workgroup enthusiastically endorses the Governor's 2021–22 Budget Proposal and the accompanying statutory changes contained in the proposed budget trailer bill. Once the data system is implemented, California will lead the nation in public access to actionable data. California's data system will provide a model for how to create public data sets using secure, modern, and affordable technologies. Just as importantly, the proposed model will ensure that a wide range of individuals, institutions, agencies, and policymakers can put this information to work to help California recover from the pandemic and address equity gaps in educational access and attainment.

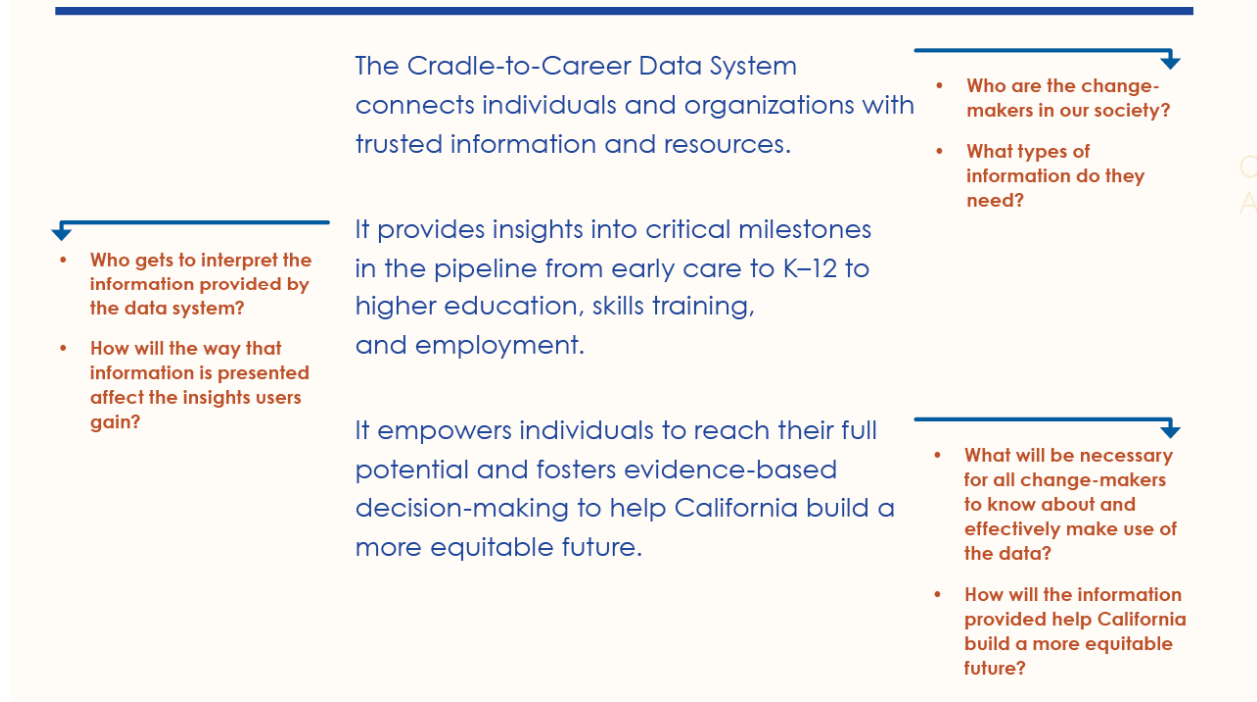## Cradle-to-Career Data System Value for Californians

- Clarify structural factors that shape long-term outcomes for various groups of students
- Streamline access to data for research purposes
- Improve underlying data quality in state agency systems
- Improve reporting from state-funded programs
- Clarify and streamline the college application process for students and California public colleges
- Improve financial aid knowledge and access
- Help educators monitor college and financial aid applications in real time
- Reduce postsecondary admission rejections due to poor data quality
- Support students' foundational needs for food and medical care
- Strengthen implementation of competency-based education

Section 2: Community Engagement

In January 2021, a new subcommittee was convened to develop community engagement recommendations.[1] For its first step, the subcommittee outlined the types of people most likely to use the data system, the types of information that would help them to address their goals, and key messages and communications strategies for each audience. These resources were shared in the April 2021 Update Report.

In the final months of the planning process, the subcommittee refined its recommended approach to communications by creating specific wording, identifying priority communications vehicles, and establishing metrics for evaluating communications efforts. The workgroup thereby endorsed a community engagement strategy that helps operationalize the equity goals articulated in its vision statement (see the following box).

UNPACKING THE VISION STATEMENT

The Cradle-to-Career Data System connects individuals and organizations with trusted information and resources.

- Who are the change-makers in our society?
- What types of information do they need?

It provides insights into critical milestones in the pipeline from early care to K–12 to higher education, skills training, and employment.

- Who gets to interpret the information provided by the data system?
- How will the way that information is presented affect the insights users gain?

It empowers individuals to reach their full potential and fosters evidence-based decision-making to help California build a more equitable future.

- What will be necessary for all change-makers to know about and effectively make use of the data?
- How will the information provided help California build a more equitable future?

---

[1] See the appendix for a list of all subcommittee members.

The primary features of the community engagement strategy include the following:

- Understanding that there are four key audiences (analyzers, institutional planners, practitioners, and individuals), and more specific personas within each key audience, and each persona will have different needs and interests
- Establishing a theory of action for advancing equity, and applying it to communications and professional development activities to ensure that equity is being addressed intentionally
- Prioritizing helping people and systems understand the information, clarifying structural factors that drive outcomes, addressing potential bias in data interpretation, and detailing how key audiences can use information for common tasks

This approach to community engagement will require that staff members of the data system's managing entity, GovOps, have expertise in community engagement. It will also require that GovOps activate a network of experts to help implement this work. To augment this internal expertise, the managing entity should have the ability to hire subcontractors to support discrete activities and cultivate partnerships with the communities whose information is represented in the data system.

The community engagement strategy also outlines specific implementation approaches, including the following:

- Emphasizing asset-based and student-centered approaches to displaying and interpreting information
- Providing resources in plain language that fosters data literacy, and in multiple languages
- Utilizing community leaders to serve as messengers and to build their capacity to conduct outreach about the data system effectively and with fidelity
- Integrating resources, such as customizable templates, into the design of the data tools wherever possible to support data use and support messaging
- Establishing targets for community engagement activities and measuring outcomes to ensure that engagement efforts are succeeding
- Including a transparent process for selecting experts to support the data system — to ensure that diverse voices are shaping the strategies

Finally, the workgroup adopted recommendations about how to ensure that the governance model is implemented in a manner that is truly inclusive of community perspectives. While voting seats on the governing board provide one clear mechanism for public input, additional considerations can help to ensure that proposals brought to the

governing board reflect community voices and that board members who represent the public feel empowered to participate fully (see the following box).

Fostering Community Voices in the Governance Process

- **Ensure that the right people are appointed to govern the data system:** Include a diversity of perspectives, prioritize expertise in equity, select individuals who can support two-way conversations with intended audiences, and align appointments with the focus area for data integration within a given timeframe (such as when workforce training data are added)

- **Scaffold involvement of community members:** Using a dedicated portion of the budget, provide orientation and mentoring to build a baseline understanding of issues, foster trust, and a shared vision, and to ensure equal treatment

- **Provide appropriate information for decision-making:** Share data from multiple sources and provide this information in readily digestible formats; information may be gathered intentionally from community members through vehicles embedded in tools, public forums, and partnerships with community-based organizations, in addition to usage data and requests

- **Create structural alignment:** Cross-pollinate ideas across the governing and advisory boards, coordinate with related public governance efforts, provide transparency about deliberations, and set timelines so that input is provided in advance of implementation, legislation, and budget deadlines

See the community engagement framework, communications overview, and governance recommendations: https://cadatasystem.wested.org/recommendations

Section 3: Privacy and Security Policies

The Cradle-to-Career Data System Act stresses the importance of ensuring that information will be kept secure and that the data system will protect individual privacy. In the April 2021 Update Report, the workgroup proposed a privacy and security framework that addresses federal and state requirements related to education, financial aid, health, and employment information. During the final months of the planning process, the workgroup approved four additional documents that help to round out the foundational requirements (see "Complete List of Privacy and Security Documents" box on p. 8).

- **The permission protocol** clarifies who will have access to sensitive information and ensures that GovOps and any vendors that it uses conform to federal, state, and agency-level requirements.
- **The incident response policy** outlines roles and responsibilities in the event that sensitive information is breached, and it details enforcement requirements.
- **The incident response plan** provides a comprehensive description of actions that would be taken after a data security incident or breach, such as timeframes for alerting both data providers and affected individuals and expected actions to compensate affected individuals.
- **The data suppression protocol for summary data** describes proven statistical methods for obscuring the identities of individuals in the dashboards and the query builder. This policy applies federal and state privacy requirements as well as protocols used in similar data systems at the federal and state levels.

The security policies and procedures recommended by the workgroup align with best practices identified by federal entities such as the U.S. Department of Education's Privacy Technical Assistance Center and private entities such as cybersecurity insurance carriers. In many cases, the requirements outlined for GovOps and its vendors exceed those mandated by the data providers for their own information. However, the comprehensiveness and volume of the linked data set introduces a significant level of risk. Several data providers were concerned that they would have to cover costs associated with a breach, which could cut into funding normally used for providing services. They also noted that cybersecurity incidents could erode the willingness of individuals to provide data to state entities. As a first step in addressing these concerns, the workgroup recommended:

- Requiring GovOps to carry cybersecurity insurance and proactively implement security processes and procedures found on cybersecurity insurance checklists.
- Convening a workgroup, under the auspices of the Governor's Office, to identify more comprehensive solutions for addressing cybersecurity costs and responsibilities for linked data sets.

Complete List of Privacy and Security Documents

- **Privacy policy:** explains how the data system protects privacy in plain language

- **Personally identifiable information definition:** clarifies which data points, particularly in combination, could reveal individual identities

- **Data classification scheme:** clarifies which data points will be considered sensitive and which can be freely displayed

- **Data suppression protocol for summary data:** describes how sensitive information will be concealed in public tools such as dashboards and the query builder

- **Data security framework:** combines the most current federal and state requirements for education and health data to inform how the managing entity will protect individual identities and other sensitive data

- **Incident response policy:** spells out roles and responsibilities and enforcement requirements for data breaches

- **Incident response plan:** details how the managing entity would respond to a data breach and involve the data providers

- **Permission protocol:** establishes the terms by which individuals can access specific types of sensitive information for the purpose of administering the data system, and specifies how their identity will be validated

- **Data request process:** clarifies how data requests will be vetted and accessed in a manner that protects the individuals whose data are shared

- **Opt-out policy:** describes how an individual can ask to be removed from the linked data set

- **System disclaimer:** establishes the terms of use for public tools

View the recommended privacy and security documents:
https://cadatasystem.wested.org/recommendations

Section 4: Legal Templates

In the December 2020 Legislative Report, the workgroup recommended that the Cradle-to-Career Data System use the Interagency Data Exchange Agreement (IDEA), a legal model that has been adopted by agencies that are part of the Executive Branch. However, upon further review by the Legal Subcommittee, the workgroup recommended an alternative approach that uses several different types of legal agreements (see "Types of Legal Agreements" table on p. 10). This alternative approach ensures that data exchanges are in full compliance with Family Educational Rights and Privacy Act (FERPA) and Higher Education Act financial aid requirements, in addition to state privacy requirements and federal health data mandates. The change to the legal framework was codified in the May revision of the trailer bill.

Participation Agreement

The participation agreement establishes GovOps's role in managing data and ensuring its security, creating public tools, facilitating third-party data requests, and implementing data exchanges among data providers when authorized. It also clarifies which entities are providing which data points and provides GovOps with the authorized representative status necessary for compliance with federal law. The participation agreement will be signed by GovOps and by all parties that contribute information to the data system at the point when they begin providing information. The Legal Subcommittee has nearly completed the participation agreement. However, the document will need further revisions to address topics such as potential legal costs and notification responsibilities that might be borne by data providers in the case of a breach. Following further review of the draft document, the legal counsel for each data provider will provide a summary of their concerns and a risk assessment of not addressing these concerns to GovOps.

Third-Party Data-Sharing Agreements

The data request process that was outlined in the December 2020 Legislative Report allows for approved third parties to access anonymized individual-level data in a secure data enclave. To streamline the process of establishing legal agreements with authorized entities, the workgroup has compiled a set of preliminary templates that are specific to each data provider. Once the secure data enclave has been procured, these templates will be updated to address the precise requirements for data access in that environment. By using templates, GovOps can ensure that a consistent set of standards is applied for all third parties while enabling the legal process to be implemented in an expeditious manner.

Master Data Exchange Agreement and Business Use Case Proposals

When data providers or other institutions on the governing board seek to provide each other with access to information that is stored in the Cradle-to-Career Data System, they will use the Master Data Exchange Agreement (MDEA) and Business Use Case Proposals (BUCP). Similar to IDEA, MDEA establishes basic terms and conditions for exchanges of information. This document can be signed at any point, without triggering a requirement to share specific information. At the point that entities would like to share information, they would complete a BUCP that documents conditions such as allowable use, duration of use, and which specific information will be shared. This document is in near-final form but requires additional review by the data providers.

Types of Legal Agreements

	Purpose	*Example of allowable use*
Participation Agreement	Establishes terms for how the managing entity must handle information from the data providers	In accordance with specific policies in the participation agreement, GovOps can work with a vendor to link records and keep sensitive data secure.
Third-Party Agreement Library	Allows entities that are not data providers or institutional governing board members to access data for authorized purposes	Using templates from the agreement library, an approved research organization can evaluate the implementation of an education reform strategy on specific student populations.
Master Data Exchange Agreement (MDEA) and Business Use Case Proposal (BUCP)	Allows data providers and institutional governing board members to access data from the Cradle-to-Career Data System	Using a BUCP specific to the project, the California Community Colleges Chancellor's Office can study transfer patterns to public, private, and independent colleges for students who earn an Associate Degree for Transfer.

Section 5: Data Elements

In the April 2021 Update Report, the workgroup listed more than 200 data points that would be made available to the public. In the final months of the planning process, data providers reviewed this list and determined which data points they will provide, based on the availability and quality of their information. These agency-specific lists will be incorporated into the participation agreement with GovOps, as required in the trailer bill.

For assessing data quality, the workgroup recommends that GovOps convene a group of experts to develop clear standards for how employment and earnings information will be processed, used, and tested before finalizing related data definitions for public-facing tools such as dashboards and the query builder. Given the lack of federal guidance on calculating key measures such as annual earnings, the various postsecondary entities have adopted different approaches for cleansing and combining source data provided by the Employment Development Department. A clearly documented and evidence-based approach will enable those accessing the data system to understand and compare outcomes across postsecondary and workforce training pathways.

Read the list of which entities are providing specific data points:
https://cadatasystem.wested.org/recommendations

Section 6: Conclusion

Over the last few decades, California has made several attempts to develop a longitudinal data system. Those prior efforts faltered due to many factors, including lack of political will, the absence of trust between educational entities, unclear benefits, concerns about security and privacy, and worries about prohibitive costs. This planning process differed from previous attempts due to the commitment of all parties — including the entities that will provide the data, members of the public, the Governor's Office, and the Legislature — to establish clarity of purpose and build trust.

The result is a model that is clear in articulating how data can be used to empower individuals to reach their full potential and to foster evidence-based decision-making to help California build a more equitable future. Through the community engagement strategy, the model clarifies how specific parties will benefit from linking data. A comprehensive privacy and security framework, which aligns with modern technology systems, explains how information will be shared in a manner that respects individual privacy and honors legal safeguards for a broad range of data types. And by leveraging broadly available technology and existing state programs, the data system can be built and maintained with a modest budget.

While the planning process mandated by the Legislature is now complete, the work to ensure that the data system attains its goals will continue. With the broad engagement and strong relationships established through the planning process, paired with the formal and informal mechanisms for input enshrined in the governance structure and the workgroup recommendations, California is well positioned to create a data system that will be inclusive and flexible to meet future needs.

Appendix

Location of Legislative Requirements in the December 2020 Legislative Report, April 2021 Update Report, and June 2021 Final Report

Note: The December 2020 Legislative Report, the April 2021 Update Report, and detailed documentation are available at **https://cadatasystem.wested.org/recommendations** Items in gray rows indicate new information included in this report (June 2021 Final Report).

Requirement	Code Section	Legislative Report Location
First Legislative Report Requirements[2] A planning facilitator that contracts with the Office of Planning and Research pursuant to subdivision (b) of Section 10855 shall report to the Department of Finance and the Legislature by July 1, 2020, on the proposed structure of the data system, including, but not limited to, the entity charged with managing the data system, the architecture of the data system, and the information that will be available on the data system[3]		
Entity: Entity charged with managing the data system	Education Code Section 10856 (a)	December 2020 Legislative Report, Section 5: Governance, Managing Entity, pages 28–30
Architecture: Architecture of the data system	Education Code Section 10856 (a)	December 2020 Legislative Report, Section 4: Technical Structure, Analytical Tools, pages 14–15
Available Data: The information that will be available on the data system	Education Code Section 10856 (a)	December 2020 Legislative Report, Section 3: Purpose and Available Data, Proposed Information for Phase One, pages 12–13; April 2021 Update Report, Section 2: Updated List of Data Points, pages 4–7; and June 2021 Final Report, Section 5: Data, page 11

---

[2]
https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?
lawCode=EDC&division=1.&title=1.&part=7.&chapter=8.5.&article=

[3] Due to the planning process starting late, the Governor's Office of Planning and Research requested six-month delays for each of the required legislative reports.

Requirement	Code Section	Legislative Report Location
Disaggregation: How the system could have the capacity to disaggregate: race, ethnicity, region, gender, military status, parents' education, and age	Education Code Section 10856 (b)(1)	December 2020 Legislative Report, Section 7: Privacy, Security, and Data Definitions, Data Definitions and Data Quality, pages 36–38
Transferring Educational Records: How to transfer high school pupil educational records to postsecondary educational institutions	Education Code Section 10856 (b)(2)	December 2020 Legislative Report, Section 4: Technical Structure, Operational Data, pages 20–23
Early Education: The impact of early education on student success and achievement as the student progresses through education segments and the workforce	Education Code Section 10856 (c)(1)	December 2020 Legislative Report, Section 4: Technical Structure, Accessing Analytical Data, pages 17–20 and April 2021 Update Report, Section 2: Updated List of Data Points, pages 4–7
Primary Education: The long-term effect of state intervention programs and targeted resource allocations in primary education	Education Code Section 10856 (c)(2)	December 2020 Legislative Report, Section 4: Technical Structure, Accessing Analytical Data, pages 17–20 and April 2021 Update Report, Section 2: Updated List of Data Points, pages 4–7
College and Career Readiness: How prepared high school pupils are to succeed in college	Education Code Section 10856 (c)(3)	December 2020 Legislative Report, Section 4: Technical Structure, Accessing Analytical Data, pages 17–20 and April 2021 Update Report, Section 2: Updated List of Data Points, pages 4–7
Transfer Outcomes: How long it takes students who transfer from community college to the University of California, the California State University, or another four-year postsecondary educational institution to graduate with a baccalaureate degree	Education Code Section 10856 (c)(4)	December 2020 Legislative Report, Section 4: Technical Structure, Accessing Analytical Data, pages 17–20 and April 2021 Update Report, Section 2: Updated List of Data Points, pages 4–7

Requirement	Code Section	Legislative Report Location
Financial Aid: College access, completion, and long-term effects of access to state financial aid	Education Code Section 10856 (c)(5)	December 2020 Legislative Report, Section 4: Technical Structure, Accessing Analytical Data, pages 17–20 and April 2021 Update Report, Section 2: Updated List of Data Points, pages 4–7
Workforce: The workforce effect of graduation from high school, community college, and four-year postsecondary educational institutions	Education Code Section 10856 (c)(6)	December 2020 Legislative Report, Section 4: Technical Structure, Accessing Analytical Data, pages 17–20 and April 2021 Update Report, Section 2: Updated List of Data Points, pages 4–7
Prior Efforts: It is the intent of the Legislature that the workgroup review and build upon prior reports, including those produced pursuant to Senate Bill 1298 of the 2007–08 Regular Session (Chapter 561 of the Statutes of 2008), and review and build upon existing data systems and best practices, as appropriate and relevant	Education Code Section 10856 (d)	December 2020 Legislative Report, Section 2: The Planning Process, Background Research, page 2
Second Legislative Report Requirements		
A planning facilitator that contracts with the Office of Planning and Research pursuant to subdivision (b) of Section 10855 shall report to the Department of Finance and the Legislature by January 1, 2021, its recommendations on all of the following:		
Data Access: How access to data will be controlled and authorized	Education Code Section 10857 (a)(1)	December 2020 Legislative Report, Section 6: Linking and Accessing Data, Data Request Process, pages 31–33; April 2021 Update Report, Section 1: Privacy and Security, pages 1–4; and June 2021 Final Report, Section 3: Privacy and Security Policies, pages 7–8

Requirement	Code Section	Legislative Report Location
Common Data Definitions: A means of developing common data definitions	Education Code Section 10857 (a)(2)	December 2020 Legislative Report, Section 7: Privacy, Security, and Data Definitions, Data Definitions and Data Quality, pages 36–38 and April 2021 Update Report, Section 2: Updated List of Data Points, pages 4–7
Additional Data Elements: Additional data elements necessary for partner entities to collect for future linkage to the data system	Education Code Section 10857 (a)(3)	December 2020 Legislative Report, Section 4: Technical Structure, Data for Analytical Purposes, page 16
Statutory Changes: Any specific changes to state law that may be necessary for implementation	Education Code Section 10857 (a)(4)	For scaling of the California College Guidance Initiative, https://cadatasystem.wested.org/recommendations Other items were sent by partner entities to the Department of Finance in response to the 2021 Trailer Bill
Training and Support: Plans for training and support of users	Education Code Section 10857 (a)(5)	April 2021 Update Report, Section 3: Community Engagement, pages 7–8 and June 2021 Final Report, Section 2: Community Engagement, pages 4–6
System Access: How users will be able to access the data system	Education Code Section 10857 (a)(6)	December 2020 Legislative Report, Section 4: Technical Structure, Accessing Analytical Data, pages 17–20
Data Entry and Correction: How authorized users will enter and correct data	Education Code Section 10857 (a)(7)	This process cannot be finalized until the vendor is selected

Requirement	Code Section	Legislative Report Location
Data Quality: How to ensure data quality from each component of the education system and participating entities	Education Code Section 10857 (a)(8)	April 2021 Update Report, Section 2: Updated List of Data Points, pages 4–7 and June 2021 Final Report, Section 5: Data, page 11
Security and Data Privacy: How to address security and data privacy considerations, including compliance with existing state and federal data privacy and use laws, and standard elements that will be included in agreements necessary to share data among partner entities	Education Code Section 10857 (a)(9)	December 2020 Legislative Report, Section 7: Privacy, Security, and Data Definitions, Security Framework, pages 35–36; April 2021 Update Report, Section 1: Privacy and Security, pages 1–4, and June 2021 Final Report, Section 3: Privacy and Security Policies, pages 7–8
Memoranda of Understanding: How to connect data in a manner that limits the number of memoranda of understanding necessary and maximizes efficiencies	Education Code Section 10857 (a)(10)	December 2020 Legislative Report, Section 7: Privacy, Security, and Data Definitions, Legal Framework, pages 34–35, and June 2021 Final Report, Section 4: Legal Templates, pages 9–10
Data Request Process: How to respond to requests from researchers to access data	Education Code Section 10857 (a)(11)	December 2020 Legislative Report, Section 6: Linking and Accessing Data, Data Request Process, pages 31–33

Requirement	Code Section	Legislative Report Location
Data Expansion: How the data system should be expanded to incorporate childcare, early education, workforce, financial aid, and health and human services data	Education Code Section 10857 (a)(12)	December 2020 Legislative Report, Section 9: Implementation, Sequencing and Timeline, pages 41–48
Implementation Timeline: An implementation timeline, including key project milestones and sequencing for functionality expansions and enhancements	Education Code Section 10857 (a)(13)	December 2020 Legislative Report, Section 9: Implementation, Sequencing and Timeline, pages 41–48
Fiscal Estimate: The estimated fiscal impact of developing the data system and the cost of recommended expansions and enhancements, including the ongoing management costs	Education Code Section 10857 (a)(14)	December 2020 Legislative Report, Section 9: Implementation, Estimated Costs, pages 49–51and April 2021 Update Report, Section 5: Budget and Procurement Process, pages 10–11
Prioritization of Key Components: A prioritization of key components needed to best enhance and expand the data system if available funding is insufficient to address all desirable elements	Education Code Section 10857 (a)(15)	December 2020 Legislative Report, Executive Summary, pages i–vi
Public Interface: How to create a public-facing interface to share information with the public that can help inform decisions	Education Code Section 10857 (a)(16)	December 2020 Legislative Report, Section 4: Technical Structure, Accessing Analytical Data, pages 17–20; April 2021 Update Report, Section 2: Updated List of Data Points, page 4; and June 2021 Final Report, Section 2: Community Engagement, pages 4–6
Statewide Student Identifier (SSID): How to identify and track students who do not have a preexisting statewide student identifier from the California Department of Education	Education Code Section 10857 (a)(17)	December 2020 Legislative Report, Section 6: Linking and Accessing Data, Record Linking, pages 30–31

Requirement	Code Section	Legislative Report Location
Prioritization for Implementation: To the extent practicable, the workgroup shall prioritize the implementation of the data system in the following order: (A) Phase 1: K–12 and higher education (B) Phase 2: Workforce (C) Phase 3: Early care and education (D) Phase 4: Health and human services and other data connections	Education Code Section 10857 (b)(1)	December 2020 Legislative Report, Section 3: Purpose and Available Data, Proposed Information for Phase One, pages 12–13

Documentation Referenced in the Report

All items are available at https://cadatasystem.wested.org/recommendations.

Community Engagement (Pages 4–6)

- Community engagement plan
- Communications overview

Privacy and Security Policies (Pages 7–8)

- Permission protocol
- Incident response policy
- Incident response plan
- Data suppression protocol for summary data

Data Points (Page 11)

- P20W data points by provider

Planning Process Participants

Cradle-to-Career Workgroup

Association of Independent California Colleges and Universities
- Thomas Vu, Vice President for Policy

Bureau for Private Postsecondary Education
- Deborah Cochran, Bureau Chief
- Michael Marion, Bureau Chief
- Leeza Rifredi, Deputy Bureau Chief

California Commission on Teacher Credentialing
- Michele Perrault, Director of the Administrative Services Division

California Community Colleges Chancellor's Office
- Barney Gomez, Vice Chancellor for Digital Innovation and Infrastructure Division
- John Hetts, Visiting Executive for Research and Data

California Department of Education
- Cindy Kazanis, Director of the Analysis of the Measurement, and Accountability Reporting Division
- Sarah Neville-Morgan, Deputy Superintendent of the Opportunities for All Branch
- Mary Nicely, Senior Policy Advisor to the State Superintendent of Public Instruction

California Department of Social Services
- Akhtar Khan, Branch Chief for the Research Services Branch, Research, Automation, and Data Division
- Natasha Nicolai, Chief Data Strategist

California Department of Technology
- Brenda Bridges Cruz, Deputy Director of the Office of Professional Development
- Tim Murphy, Architect

California Health and Human Services
- Elaine Scordakis, Assistant Director of the California Office of Health Information Integrity
- John Ohanian, Chief Data Officer and Director

California Labor and Workforce Development Agency
- Jeanne Wolfe, Assistant General Counsel

California School Information Services
- Amy Fong, Chief Operations Officer

California State Board of Education
- Sara Pietrowski, Policy Consultant

California State University, Office of the Chancellor
- Ed Sullivan, Assistant Vice Chancellor for Academic Research and Resources
- Matthew Case, Interim Director, Strategic Policy Analytics

California Student Aid Commission
- Patrick Perry, Division Chief of Policy, Research, and Data

Employment Development Department
- Amy Faulkner, Chief of the Labor Market Information Division

Government Operations Agency
- Joy Bonaguro, Statewide Chief Data Officer

University of California, Office of the President
- Chris Furgiuele, Director for Institutional Research and Planning

Policy and Analytics Advisory Group

Asian Americans Advancing Justice
- Liza Chu, California Policy Manager
- Victoria Dominguez, Policy Director

California Budget and Policy Center
- Kristin Schumacher, Senior Policy Analyst

California Competes
- Su Jin Gatlin Jez, Executive Director

California Policy Lab
- Evan White, Executive Director

California Teachers Association
- Brian Guerrero, Former President and 7th grade Language Arts teacher at Lennox Middle School

Child Trends
- Carlise King, Executive Director of the Early Childhood Data Collaborative

Children's Data Network

- Emily Putnam-Hornstein, Director

Children Now

- Samantha Tran, Senior Managing Director of Education Policy

Education Insights Center

- Andrea Venezia, Executive Director

Education Trust-West

- Christopher Nellum, Interim Executive Director

Educational Results Partnership

- James Lanich, President and Chief Executive Officer

GreatSchools.org

- Orville Jackson, Senior Director of Data Strategy

Policy Analysis for California Education

- Heather Hough, Executive Director

Public Advocates

- Liz Guillen, Director of Legislative and Community Affairs
- Rigel Spencer Massaro, Senior Legislative Counsel (prior to joining the State Board of Education)

Public Policy Institute of California

- Jacob Jackson, Research Fellow

The Institute for College Access and Success

- Angela Perry, Policy Analyst

Practice and Operations Advisory Group

Bakersfield College

- Craig Hayward, Dean of the Office of Institutional Effectiveness

California Federation of Teachers

- Reynaldo Dulaney, Jr., High School Teacher, Thurgood Marshall High School

Campaign for College Opportunity

- Sara Arce, Vice President of Policy and Advocacy

Child Care Resource Center
- Susan Savage, Director of Research

CORE Districts
- Rick Miller, Executive Director

Foothill College
- Laurie Scolari, Associate Vice President of Student Services

Futuro Health
- Anthony Dalton, Chief Data and Technology Officer

Lancaster Unified School District
- Michele Bowers, Superintendent

Linked Learning Alliance
- Roneeta Guha, Vice President for Strategy and Impact

Poway Unified School District
- Kathleen Porter, Executive Director of Career Technical, Adult, and Alternative Education

Reinvent Stockton Foundation
- Lange Luntao, Executive Director

Riverside County Office of Education
- Catalina Cifuentes, Executive Director of College and Career Readiness

Santa Clara County Office of Education
- Joell Hanson, Career Technical Education Coordinator
- Marcy Lauck, Retired Senior Advisor for Data Initiatives
- Nabil Shahin, Director of K–12 Data Governance

uAspire
- Jaclyn Pinero, Chief Regional Officer and Co-Chief Executive Officer
- Tyler Wu, California Policy Director

UNITE-LA
- David Rattray, President

West Hills College Lemoore
- Kristin Clark, President

Common Identifier Subcommittee

Association of Independent California Colleges and Universities
- Jonathon Chillas, Chief Data Officer and Vice President of National University

Bureau for Private Postsecondary Education
- Scott Valverde, Chief of Student Assistance and Relief

California College Guidance Initiative
- Ben Baird, Director of CaliforniaColleges.edu Data Infrastructure

California Commission on Teacher Credentialing
- Michele Perrault, Director of the Administrative Services Division

California Community Colleges Chancellor's Office
- Todd Hoig, Director of the Management Information Systems

California Department of Education
- Channa Hewawickrama, Education Research and Evaluation Consultant for the Early Learning and Care Division
- Jerry Winkler, Division Director of the Educational Data Management Division

California Department of Social Services
- Jayson Hunt, Research Data Specialist
- Akhtar Khan, Branch Chief, Research Services Branch, Research, Automation, and Data Division

California Department of Technology
- Janet Buehler, Enterprise Architect

California Health and Human Services Agency
- Chris Krawczyk, Chief Analytics Officer
- Jennifer Schwartz, Chief Counsel

California Labor and Workforce Development Agency and Employment Development Department
- Amy Faulkner, Division Chief of the Labor Market Information Division

California School Information Services
- Greg Scull, Information Systems Officer

California State Board of Education
- Sara Pietrowski, Policy Consultant

California State University Office of the Chancellor
- Jeff Whitney, Director of Implementation Services

Cal Poly Pomona
- Joseph Hackbarth, Director of Enrollment Management Data and Operations Analysis

California Student Aid Commission
- Patrick Perry, Division Chief for Policy, Research, and Data

Educational Results Partnership
- Dan Lamoree, Principal Data Architect

University of California, Davis
- Paco Martorell, Associate Professor for the School of Education

University of California Office of the President
- Eric Goodman, Data Architect and Identity Access Management Lead

University of Southern California
- John Prindle, Research Assistant Professor

Community Engagement Subcommittee

Advancement Project
- Karla Pleitez-Howell, Managing Director of Policy and Programs

Asian Americans Advancing Justice
- Victoria (Nikki) Dominguez, Policy Director

California Collaborative for Educational Excellence
- Steven Sterling Mitchell, Senior Manager

California College Guidance Initiative
- Maya Ramos Clayton, Vice President of District Partnerships

California EDGE Coalition
- Anna Alvarado, Policy Director

California School Information Services
- Amy Fong, Chief Operations Officer

California State Board of Education

- Zaid Fattah, State Board of Education Representative (Monte Vista High School)

California State Parent Teacher Association (PTA)

- Lea Darrah, Vice President for Education

California Together

- Xilonin Cruz-Gonzalez, Deputy Director

Children Now

- Stephen Blake, Senior Advisor

Concordia University Irvine

- Lizz Mishreki, Director of Public Relations and FirstGen Student Initiative

Del Norte County Office of Education

- Jeff Harris, Superintendent

Elk Grove Unified School District

- Jackie Nevarez, College and Career Pathways Counselor

Fresno Unified School District

- Heather Allen, Executive Director, College and Career Readiness

Growing Inland Achievement

- Sorrel Stielstra, Director of Research

High Tech High Graduate School of Education

- Ben Daley, President

Imperial County Office of Education

- Denise Cabanilla, Director of Higher Learning and Adult Education

Jobs for the Future

- Mara Lockowandt, Senior Program Manager

Legacy Education

- Ena Hull, Chief Operations Officer

Moreno Valley Unified School District

- Esperanza Arce, Director of Secondary Education

NAACP Pomona Valley Branch
- Jeanette EllisRoyston, President

North Orange County Chamber of Commerce
- Theresa Harvey, President/CEO

Parent Institute for Quality Education (PIQE)
- Patricia E. Chavez, Director of Policy
- Lucero Chavez, Policy Associate

Sacramento State
- Chao (Danny) Vang, Executive Coordinator of Equity Programs

San Bernardino City Unified School District
- Rose Gonzalez, Coordinator, Workforce Development

San Diego State University
- Laura Owen, Executive Director, Center for Equity and Postsecondary Attainment

Student Senate for California Community Colleges
- Gerardo Chavez, Region Affairs Director

University of California Office of the President
- Jenna Allen, Executive Director and Deputy to the Vice President, Institutional Research and Planning

Vista Murrieta High School
- Eric Peterson, Counselor and Adjunct Professor, Concordia University Irvine

Washington Unified School District
- Jackie Wong, Trustee

Definitions Subcommittee

Association of Independent California Colleges and Universities
- Todd Britton, Acting Vice President and Chief Information Officer for University of LaVerne
- Randy Tarnowski, Director of Research

Bureau for Private Postsecondary Education
- Joanna Murray, Senior Education Specialist

California Commission on Teacher Credentialing
- Phi Phi Lau, Consultant
- Erin Skubal, Director, Certification
- Marjorie Suckow, Consultant

California Community Colleges Chancellor's Office
- Todd Hoig, Director of Management Information Systems

California Department of Education
- Channa Hewawickrama, Education Research and Evaluation Consultant for the Early Learning and Care Division
- Glenn Miller, Education Administrator
- Paula Mishima, Education Administrator
- Jerry Winkler, Division Director of the Educational Data Management Division

California Department of Health Care Services
- Muree Larson-Bright, Staffing Audits and Research Branch Chief
- Phil Heinrich, Senior Information Systems Analyst

California Department of Industrial Relations
- Glen Forman, Deputy Chief, Apprenticeship Standards

California Department of Social Services
- Patrick Delaney, Research Data Specialist
- Akhtar Khan, Branch Chief for the Research Services Branch, Research, Automation, and Data Division

California Department of Technology
- Janet Buehler, Enterprise Architect

California Health and Human Services Agency
- David Sanabria, Data Architect
- Jennifer Schwartz, Chief Counsel

California Labor and Workforce Development Agency
- Patrick Getz, Information Technology Project Manager for CAAL-Skills

California School Information Services
- Rima Mendez, Requirements Officer

California State University Office of the Chancellor
- Monica Malhotra, Director of Strategic Analytics

California State Board of Education
- Sara Pietrowski, Policy Consultant

California Student Aid Commission
- Adrian Felix, Research Data Specialist

Employment Development Department
- Margo Gonzales, Deputy Division Chief of the Labor Market Information Division

University of California Office of the President
- Chris Furgiuele, Institutional Research Manager

West Coast University
- Valerie Mendelsohn, Vice President of Compliance and Risk Management

Legal Subcommittee

Association of Independent California Colleges and Universities
- Veronica Villalobos Cruz, Managing Director of Cruz Strategies

Bureau for Private Postsecondary Education
- Douglas Smith, Counsel
- Freshta Rasoli, Executive Analyst

California Commission on Teacher Credentialing
- Katie Elliott, Attorney
- Linh Nguyen, Chief Deputy Director

California Community Colleges Chancellor's Office
- Kathy Lynch, Deputy Counsel

California Department of Education
- Bruce Yonehiro, Deputy General Counsel

California Department of General Services
- Marina Feehan, Attorney III, Office of Legal Services
- Jennifer Bollinger, Chief Counsel and Deputy Director

California Department of Health Care Services
- Cynthia Bosco, Senior Attorney
- Margaret Porto, Senior Attorney

California Department of Social Services
- Akhtar Khan, Branch Chief for the Research Services Branch, Research, Automation, and Data Division
- Carolyn Kubish, Senior Counsel

California Department of Technology
- Jennifer Marquez, Attorney
- Kary Marshall, Attorney

California Government Operations Agency
- Gabriel Ravel, Deputy Secretary and General Counsel
- Kristine Beckley, Assistant General Counsel
- Rebekah Gibson, Assistant General Counsel

California Health and Human Services Agency
- Jennifer Schwartz, Chief Counsel

California Labor and Workforce Development Agency
- Jeanne Wolfe, Assistant General Counsel

California School Information Services
- Rima Mendez, Requirements Officer

California State Board of Education
- Sara Pietrowski, Policy Consultant

California State University Office of the Chancellor
- Arun Casuba, Executive Director and Strategic Sourcing and Chief Procurement Officer
- Ed Hudson, Chief Information Security Officer
- Monique Shay, Assistant Vice Chancellor and Chief Counsel
- Ed Sullivan, Assistant Vice Chancellor, Academic Research and Resources
- John Walsh, University Counsel

California Student Aid Commission
- Julia Blair, Chief Legal Counsel
- Mark Paxson, Acting General Counsel

Employment Development Department
- Brian Davis, Senior Attorney

University of California Office of the President
- Stella Ngai, Senior Counsel, Public Accountability and Governance

Research Agenda Subcommittee

Association of Independent California Colleges and Universities
- Thomas Vu, Vice President for Policy

Bureau for Private Postsecondary Education
- Alma Mededovic, Compliance Analyst

California Commission on Teacher Credentialing
- Tine Sloan, Commission Chair

California Community Colleges Chancellor's Office
- John Hetts, Visiting Executive for Research and Data for the Educational Services and Support Division
- Valerie Lundy-Wagner, Assistant Vice Chancellor of Research and Data for the Educational Services and Support Division

California Department of Education
- Ben Allen, Education Programs Consultant for the Early Learning and Care Division
- Jonathan Isler, Administrator for the Data Visualization and Reporting Office, Analysis, Measurement, and Accountability Reporting Division

California Department of Social Services
- Natasha Nicolai, Chief Data Strategist

California Department of Technology
- Janet Buehler, Enterprise Architect

California Health and Human Services Agency
- Jennifer Schwartz, Chief Counsel

California Labor and Workforce Development Agency
- Dan Rounds, Deputy Director for Policy, Research, and Legislation

California Office of Statewide Health Planning and Development
- Chris Krawczyk, Chief Analytics Officer

California School Information Services
- Martha Friedrich, Client Services Officer

California State University Office of the Chancellor
- Nathan Evans, Chief of Staff and Senior Advisor for Academic and Student Affairs

California State Board of Education
- Sara Pietrowski, Policy Consultant

California Student Aid Commission
- Jessica Moldoff, Research Data Specialist

Centers of Excellence for Labor Market Research
- Laura Coleman, Statewide Director

Employment Development Department
- Muhammad Akhtar, Deputy Division Chief of the Labor Market Information Division

Gurnick Academy of Medical Arts
- Abraham Cicchetti, Campus Director

Hoss Lee Academy, Inc.
- Lisa Lee, Owner/Director

Research and Planning Group for California Community Colleges
- Alyssa Nguyen, Director of Research and Evaluation

UnitekLearning.com
- Steve Watkins, Vice President of Program Development and Regulatory Affairs

University of California, Berkeley
- Tameka McGlawn, Executive Director of the College and Career Academy Support Network
- Jesse Rothstein, Professor of Public Policy and Economics

University of California, Davis
- Michal Kurlaender, Professor and Department Chair for the School of Education
- Sherrie Reed, Executive Director of the California Education Lab

University of California Office of the President
- Tongshan Chang, Director for Institutional Research and Planning

University of California, Santa Barbara
- Russell Rumberger, Professor Emeritus of the Department of Education

Technology and Security Subcommittee

Antelope Valley Union High School District
- Formeka Dent, District Data Technician

Association of Independent California Colleges and Universities
- Helen Norris, Vice President and Chief Information Officer for Chapman University

Bureau for Private Postsecondary Education
- Jason Piccione, Deputy Director and Chief Information Officer

California College Guidance Initiative
- Ben Baird, Director of CaliforniaColleges.edu Data Infrastructure

California Commission on Teacher Credentialing
- Andy Manguia, Information Technology Supervisor
- Don McGillivray, Information Technology Specialist

California Community Colleges Chancellor's Office
- Barney Gomez, Vice Chancellor, Digital Innovation and Infrastructure Division
- Daryl Lal, Information Security Specialist

California Department of Education
- Alan Nakahara, Manager for the Application Development and Maintenance Office of the Technology Services Division
- Rodney Okamoto, Director for the Technology Services Division

California Department of General Services
- Mike Arakji, Chief Information Security Officer

California Department of Social Services
- Karissa Vidamo, Acting Information Security and Privacy Officer

California Department of Technology
- Janet Buehler, Enterprise Architect
- Vitaliy Panych, Acting State Chief Information Security Officer
- Michele Robinson, Manager for Security Risk and Governance

California Health and Human Services Agency
- Adam Dondro, Agency Chief Information Officer
- Lloyd Indig, Agency Information Security Officer

California Labor and Workforce Development Agency
- Douglas Leone, Agency Information Security Officer

California School Information Services
- Greg Scull, Information Systems Officer

California State University Office of the Chancellor
- Subash D'Souza, Director of Cloud Data Engineering
- Ed Hudson, Chief Information Security Officer

California State Board of Education
- Sara Pietrowski, Policy Consultant

California Student Aid Commission
- Gurinder Bains, Chief Information Officer

CORE Districts
- Noah Bookman, Executive Director

Educational Results Partnership
- Dan Lamoree, Principal Data Architect

Employment Development Department
- Todd Ibbotson, Information Security Officer

Modesto Junior College
- Jenni Abbott, Dean of Institutional Effectiveness

University of California Office of the President
- Matthew Linzer, Information Security Manager
- Hooman Pejman, Data Architect

WestEd Facilitation Team

- Lupita Alcala, Director of Education Policy and Outcomes
- Rachel Antrobus, Senior Program Associate
- Rhegille Baltazar, Program Coordinator
- Allie Bollella, Program Coordinator
- Kathy Booth, Project Director for Educational Data and Policy
- Kathy Reeves Bracco, Consultant
- Andrew Brannegan, Improvement Analytics Specialist
- Erin Carter, Web Producer/Administrator

- Jessica Chittaphong, Program Coordinator
- Rosemary De La Torre-Trigueros, Program Assistant
- Neal Finkelstein, Senior Managing Director
- LeAnn Fong-Batkin, Senior Project Manager
- James Gilroy, Program Coordinator
- Melissa Josue, Administrative Assistant
- Alexandra Lozanoff, Senior Project Manager
- Mansi Master, Operations Analyst
- Marion McWilliams, Legal Counsel
- Michael Medina, Graphic Designer
- Sara Miller, Research Associate
- Baron Rodriguez, Director of Privacy and Data Security
- Vanessa Scheirer, Visual and UX Designer
- Marisela Sifuentes, Research Assistant
- Ravinder Singh, Senior Program Associate
- Cameron Sublett, Senior Research Associate
- Amy Supinger, Consultant
- Gerrit Westervelt, Director, Early Childhood Policy and Development
- Melissa White, Project Director
- Noel White, Senior Editor

With support from the Data Quality Campaign:

- Paige Kowalski, Executive Vice President
- Gavin Payne, Consultant

And from Collaborative Communications:

- Elizabeth Galicia, Strategic Consultant
- Katherine Hunt, Partner
- Liv Jacobson, Senior Associate
- Maura Keaney, Vice President
- Meg Sommerfeld, Vice President