

Date of Hearing: April 7, 2021

ASSEMBLY COMMITTEE ON EDUCATION
Patrick O'Donnell, Chair
AB 99 (Irwin) – As Amended February 12, 2021

[Note: This bill is double referred to the Assembly Higher Education Committee and will be heard by that Committee as it relates to issues under its jurisdiction.]

SUBJECT: Statewide longitudinal data system: California Cradle-to-Career Data System: governance and support

SUMMARY: Establishes the Cradle-to-Career Data System, a statewide data infrastructure that integrates data from various partner entities. Specifically, **this bill:**

- 1) Defines the following terms:
 - a) “Data system” or the “Cradle-to-Career Data System” to mean statewide data infrastructure that integrates data from various partner entities and supports the identified purposes.
 - b) “Governing board” to mean the California Cradle-to-Career Data System Governing Board established by this proposal.
 - c) “Managing entity” to mean the Cradle-to-Career Data Office established within the Government Operations Agency under the Department of General Services.
 - d) “Partner entity” to mean an organization that can provide information to the data system to advance the purposes identified in this chapter and includes, but is not limited to, state entities responsible for elementary and secondary education data, entities responsible for early learning data, segments of public higher education, private colleges and universities, state entities responsible for student financial aid, childcare providers, state labor and workforce development agencies, and state departments administering health and human services programs.
- 2) States that the vision of the data system is as follows: The Cradle-to-Career Data System connects individuals and organizations with trusted information and resources. It provides insights into critical milestones in the pipeline from early care to K–12 to higher education, skills training, and employment. It empowers individuals to reach their full potential and fosters evidence-based decisionmaking to help California build a more equitable future.
- 3) States that the mission of the data system is as follows: To be California’s secure and trusted source of actionable data and research on education, economic, and health outcomes for individuals, families, and communities, and to expand access to tools and services to navigate the education-to-employment pipeline.
- 4) States that all of the following are the strategic objectives of the data system:

- a) To develop the architecture for linking records across agencies and creating intersegmental data sets in a manner that promotes data privacy and security, minimizes the need for new infrastructure, and is adaptable and flexible to meet future needs.
 - b) To provide public-facing data visualizations, query tools, and a research library that provide actionable information on education, social services, employment patterns, and equity gaps in opportunities and outcomes.
 - c) To provide interagency data sets that enable research on factors that help Californians meet critical education milestones, evaluate the long-term impact of state-funded programs, and identify strategies for closing equity gaps.
 - d) To provide resources, training, and technical assistance that build data literacy among policymakers, practitioners, and the public.
 - e) To provide college and career planning tools, college-readiness monitoring, electronic transcripts, and confirmation of eligibility for financial aid and other pupil and student supports.
 - f) To improve the quality and reliability of data reported in the data system, and ensure consistency of key data definitions.
- 5) Establishes the California Cradle-to-Career Data System Governing Board in state government, consisting of 12 data contributors and six public members:
- a) Requires that the 12 data contributors be appointed as follows:
 - i) A representative from the State Department of Education, appointed by the Superintendent of Public Instruction;
 - ii) A representative from the California Community Colleges, appointed by the Board of Governors of the California Community Colleges;
 - iii) A representative from the California State University, appointed by the Trustees of the California State University;
 - iv) A representative from the University of California, appointed by the Regents of the University of California;
 - v) A representative from the Bureau for Private Postsecondary Education, appointed by the bureau chief;
 - vi) A representative from the Association of Independent California Colleges and Universities, appointed by its executive committee;
 - vii) A representative from the Labor and Workforce Development Agency, appointed by the Secretary of the Labor and Workforce Development;

- viii) A representative from the Employment Development Department, appointed by the Director of Employment Development
 - ix) A representative from the Student Aid Commission, appointed by the Chair of the Student Aid Commission;
 - x) A representative from the Commission on Teacher Credentialing, appointed by the Chair of the Commission on Teacher Credentialing;
 - xi) A representative from the California Health and Human Services Agency, appointed by the Secretary of California Health and Human Services; and
 - xii) A representative from the State Department of Social Services, appointed by the Director of Social Services.
- b) Requires a representative appointed to serve until replaced by the appointing authority for that representative.
- c) Authorizes an appointed representative to delegate their voting rights to an alternate, so long as that alternate has the authority to make decisions on behalf of the appointed representative.
- d) Requires the appointing authority to be accountable for their entity's participation in the data system.
- e) Requires that the six public members of the governing board have expertise with data systems and their use and be appointed as follows:
- i) One public member who is a classroom teacher in a public elementary or secondary school, appointed by the Governor with a service term of three years.
 - ii) One public member who is a school leader of a public elementary or secondary school, including, but not limited to, an administrator, superintendent, principal, or counselor, appointed by the Governor with a service term of three years.
 - iii) Two public members who represent the members of the public who are intended to benefit from the data system or are affected by the data, including, but not limited to, practitioners, families, students, adult learners and workers, community organization staff, research organization staff, and advocacy organization staff, appointed by the Speaker of the Assembly. The initial service term for an individual must be for two years, followed by three year terms.
 - iv) Two public members who represent the members of the public that are intended to benefit from the data system or are affected by the data, including, but not limited to, practitioners, families, students, adult learners and workers, community organization staff, research organization staff, and advocacy organization staff, appointed by the Senate Committee on Rules. The initial service term for an individual must be for one year, followed by three year terms.

- f) Requires that a representative from a particular group or entity must not serve for more than one consecutive term, and a particular group or entity must not have more than one representative on the governing board at any given time.
 - g) Requires that each member of the governing board is entitled to one vote, and that all decisions of the governing board require a 2/3 vote. Authorizes the governing board to appoint other ex officio positions, as nonvoting members, to provide additional expertise and perspectives, such as the state's chief data officer of the Government Operations Agency.
 - h) Requires the governing board to elect a chair to serve a two-year term. In the second year of the term, the current chair must be supported by the incoming chair. A representative from a particular group or entity must not serve more than one consecutive term as chair.
- 6) Authorizes the governing board to revise the vision, mission, or strategic objectives of the data system to further the purposes of the Cradle-to-Career Data System.
- 7) Requires the governing board to ensure the data system is serving its intended purpose, including doing all of the following:
- a) Setting, revisiting, and amending the vision, mission, and strategic objectives for the data system, particularly related to opportunity and outcomes gaps and advancing common goals;
 - b) Developing a theory of action to guide evaluations of the implementation of the data system;
 - c) Reviewing input from end users to evaluate the usefulness of the data system, whether the data system is fostering evidenced-based decisionmaking, and whether the data system is benefiting all Californians; and
 - d) Securing sufficient resources, building ongoing support, and advocating for using the data system with the public, the Governor, the Legislature, partner entities, and other data providers.
- 8) Requires the governing board to monitor technical, legal, and data implementation of the data system, including by doing all of the following:
- a) Reviewing and approving recommended technical and data security policies, in consultation with technology and data security experts;
 - b) Reviewing and approving recommended legal and privacy policies, in consultation with legal and privacy experts;
 - c) Reviewing and approving recommended data practices, in consultation with data experts;
 - d) Monitoring compliance with federal and state laws regarding data sharing; and

- e) Monitoring compliance with legal requirements regarding privacy, security, and authorized access.
- 9) Requires the governing board to provide operational oversight of the managing entity, including by doing all of the following:
- a) Approving budget requests and operational budgets developed by the managing entity;
 - b) Approving operational plans developed by the managing entity to ensure the plans align with the strategic direction regarding data access and use, operational tools, and community engagement for the data system;
 - c) Ensuring the managing entity is implementing a user-centered design approach for data system tools;
 - d) Reviewing and approving professional development, technical assistance, and communications plans for end users developed by the managing entity;
 - e) Reviewing and approving the operational tools implementation plan developed by the managing entity; and
 - f) Hiring, evaluating, and, if necessary, firing the director of the managing entity.
- 10) Requires the governing board to oversee participation in the data system and provide for its governance structure, including by doing all of the following:
- a) Evaluating and approving requests from new potential partner entities or other data providers regarding their participation in the data system;
 - b) Establishing and revising governance policies and procedures for the data system, including establishing a governance manual for activities under this chapter by the governing board, the managing entity, advisory boards and task forces established under this chapter, and partner entities and other data providers;
 - c) Appointing members to the Data and Tools Advisory Board and Community Engagement Advisory Board;
 - d) Defining the membership and appointment structure for additional advisory boards;
 - e) Providing input to the managing entity on the purpose and composition of any task force; and
 - f) In phase one, focus on linking early learning and care, K–12, postsecondary, employment, and financial aid data in the data system.
- 11) Requires the governing board to recommend the types of information available through the data system in accordance with both of the following:

- a) The governing board must review recommendations for additional data to be included in the data system as part of a strategic planning process. All recommendations for additional data must require a feasibility study conducted by the managing entity.
 - b) The managing entity must work with the relevant partner entities, other data providers, and experts to document data availability, reliability, and validity of the data system, legal requirements for the data system, startup and ongoing costs to the managing entity, partner entities, and other data providers, potential approaches for collecting the information for the data system, and any political implications or other implications that would jeopardize the objectivity of the managing entity.
- 12) Requires the governing board to recommend improvements to the mechanisms for accessing information in the data system, to be implemented by the managing entity, including by doing all of the following:
- a) Reviewing and approving recommendations for significant content changes to dashboard visualizations for the data system;
 - b) Reviewing and approving recommendations for significant changes to query builder data points for the data system;
 - c) Reviewing and approving recommendations for the topics to be covered in reports that provide an objective written summary of information available in the data system; and
 - d) Reviewing and approving recommendations for new tools that would help the public interact with the data in the data system.
- 13) Requires the governing board to meet quarterly to address ongoing business needs and emerging issues, and to review recommendations from the advisory boards established under this chapter. Requires, when reviewing advisory board recommendations, the governing board to document how it intends to address the issues raised by the advisory boards.
- 14) Authorizes additional meetings to be called by the governing board as needed, based on a governance manual policy.
- 15) Requires the chair of the governing board must be responsible for facilitating governing board meetings and setting agendas, acting as the governing board's primary point of contact for the director of the managing entity, onboarding new governing board members, and convening topical committees for tasks as needed, including appointing members to advisory boards established under this chapter and conducting the annual review of the director of the managing entity based on an established performance evaluation process.
- 16) Requires that all meetings of the governing board be subject to the Bagley-Keene Open Meeting Act.
- 17) Authorizes the governing board to create and sunset advisory boards in addition to those established in current law, taking into consideration the cost, size, and purpose of the advisory board. Requires that all meetings of an advisory board be subject to the Bagley-Keene Open Meeting Act.

- 18) Establishes the Cradle-to-Career Data Office within the Government Operations Agency under the direction of the Department of General Services, to serve as the managing entity of the data system.
- 19) Requires the managing entity to support the governing board, advisory boards partner entities, and other data providers in furtherance of the strategic objectives of the data system, including by doing all of the following:
 - a) Staffing all meetings and processes of the governing board and any advisory board or task force established under this chapter;
 - b) Supporting the development and updating of the governance manual for the data system;
 - c) Onboarding new data contributors of the governing board, in partnership with the chair of the governing board;
 - d) Implementing recommendations from the Data and Tools Advisory Board requiring new data elements, new visualizations on the dashboard, expanded query builder data points, or new tools;
 - e) Conducting feasibility studies and developing proposals regarding the validity of the data system, legal requirements for the data system, startup and ongoing costs to the managing entity, and potential approaches for collecting information for the data system;
 - f) Developing proposals for professional development, technical assistance, and communication plans based on recommendations from the Community Engagement Advisory Board;
 - g) Ensuring regular reports and external evaluations regarding whether and how the vision and strategic objectives for the data system are being implemented, based on a theory of action;
 - h) Identifying barriers to implementing the mission and vision of the data system, and developing recommendations for the governing board on how to eliminate these barriers;
 - i) Supporting the development of technical and data security policies, legal policies, data standards, and governance policies for the data system;
 - j) Escalating issues to the governing board, as needed, regarding technical and legal implementation of the data system, and data provider compliance with statutory requirements and legal agreements; and
 - k) Coordinating with the governing board, the Governor, and advisory boards established under this chapter, regarding ongoing support from the legislative and executive branches of state government for the data system.
- 20) Requires the managing entity to manage the technical infrastructure of the data system, including by doing all of the following:

- a) Creating, managing, procuring, securing, and maintaining a master data management model to match individual records;
 - b) Creating, managing, procuring, securing, and maintaining the infrastructure and tools to support data contributions and to receive and process research requests;
 - c) Creating data sets that are tailored to approved purposes;
 - d) Leveraging a role-based technical architecture to allow authorized parties to access unitary data points;
 - e) Ensuring availability, reliability, and performance of the technical infrastructure;
 - f) Ensuring data privacy and security;
 - g) Developing and curating all necessary technical documentation and resources to facilitate data submissions from partner entities and other data providers; and
 - h) Providing ongoing training and technical assistance to partner entities and other data providers on the data submission process.
- 21) Requires the managing entity to implement public tools for the data system and support the use of those tools, including by doing all of the following:
- a) Providing information to the public using dashboards, query builders, and research libraries;
 - b) Leading user-centered design and testing processes for the dashboard and query builder tools of the data system;
 - c) Providing objective written summaries of information available in the data system that relate to the public good and equitable opportunities and outcomes;
 - d) Scaling existing tools that support college planning and the transfer of pupil and student records;
 - e) Providing information, resources, training, and technical assistance that fosters evidence-based decisionmaking, strengthens analytical capacity to use available data tools, and enables end users to understand structural factors that influence outcomes;
 - f) Ensuring information, resources, training, and technical assistance account for the needs of various communities, including by ensuring that all materials are accessible and provided in more than one language;
 - g) Leading community engagement activities to provide an ongoing channel for the public to provide input about the data system and using these interactions to develop recommendations about available data and improving capacity for evidence-based decisionmaking;

- h) Where authorized, collecting new data points on behalf of the state; and
- i) Engaging in continuous improvement by joining communities of practice for longitudinal data systems, identifying evolving best practices on legal, technical, data, and community engagement topics, conferring with experts, and participating in intrastate and national data collection and policy efforts.

22) Requires the managing entity to do all of the following in support of the data system:

- a) Support data requests, including doing both of the following:
 - i) Supporting a review process for data requests on behalf of the partner entities and other data providers, including the assessment of whether the request form is fully completed, cannot be answered using the public-facing query tools, does not violate any local, state, or federal law regarding privacy, and seeks information that is available from partner entities or other data providers through the data system; and
 - ii) Providing project management during the data request review process to facilitate timely resolution of any concerns and the provision of data.
- b) Improve data quality, including by doing both of the following:
 - i) Working with the Data and Tools Advisory Board and the Community Engagement Advisory Board to identify data points with questionable data quality; and
 - ii) Working with each partner entity or other data provider to determine if definitions or data points that are currently uploaded to the data system have changed, and if so, document implications for the data set and publicly available data.
- c) Ensure legal compliance of the data system by providing routine and ongoing compliance with all applicable federal, state, and partner entity or other data provider specific laws and regulations to ensure confidentiality and privacy of individual records.
- d) Manage administrative functions, including all of the following:
 - i) Developing an annual workplan, for approval by the governing board;
 - ii) Developing budget requests and operational budgets, for approval by the governing board;
 - iii) Expending funds in alignment with the operational budget and following an agreed-upon process to address unanticipated expenses;
 - iv) Entering into contracts and other agreements in furtherance of supporting the data system and performing the duties required under this chapter; and
 - v) Overseeing personnel management and compensation of the staff of the managing entity, other than the director of the managing entity.

- 23) Requires the managing entity to create and sunset task forces to provide expertise necessary to implement the strategic objectives outlined by the governing board, taking into consideration the cost, size, and purpose of the task force. Requires that the topics, duration, and membership of a task force remain flexible, with the governing board providing input on its purpose and composition. Requires that all meetings of a task force and advisory body be subject to the Bagley-Keene Open Meeting Act. Requires that an advisory board be staffed by the managing entity.
- 24) Establishes the Data and Tools Advisory Board consisting of 16 members appointed by the governing board.
- a) Requires that members appointed to the advisory board be end users of the data from the data system, including, but not limited to, practitioners, families, pupils, students, adult learners and workers, community organization staff, research organization staff, and advocacy organization staff and requires that:
- i) A representative from a particular group or entity not serve for more than one consecutive term, and a particular group or entity not have more than one representative on the advisory board at any given time; and
- ii) The members of the advisory board serve three-year terms, and that the governing board stagger initial terms of the members of the advisory board so that the initial term expires in three years for six members, the initial term expires in two years for five members, and the initial term expires in one year for five members.
- b) Requires the advisory board to do all of the following:
- i) Each year, examine whether the data system is providing actionable information and identify ways to improve access to that information;
- ii) Each year, review the data requests that were approved and denied to identify mechanisms that would enable appropriate data requests to be approved;
- iii) Consult with data experts and intended data users, including members of the public, when developing data use priorities; and
- iv) Provide recommendations to the governing board that are paired with feasibility studies by the managing entity regarding all of the following: data availability, reliability, and validity of the data system; legal requirements for the data system; startup and ongoing costs to the managing entity, partner entities, and other data providers; and potential approaches for collecting information for the data system.
- 25) Establishes the Community Engagement Advisory Board consisting of 16 members appointed by the governing board.
- a) Requires that members appointed to the advisory board be end users of the data from the data system, including, but not limited to, practitioners, families, pupils, students, adult

learners and workers, community organization staff, research organization staff, and advocacy organization staff. Establishes terms of members as follows:

- i) Requires that a representative from a particular group or entity not serve for more than one consecutive term, and a particular group or entity not have more than one representative on the advisory board at any given time.
 - ii) Requires that members of the advisory board serve three-year terms. Requires the governing board must stagger initial terms of the members of the advisory board so that the initial term expires in three years for six members, the initial term expires in two years for five members, and the initial term expires in one year for five members.
- b) Requires the advisory board to examine whether the managing entity is creating strong feedback loops with data users, supporting evidence-based decisionmaking and analytical capacity, and ensuring equitable access to actionable information.
- c) The advisory board must develop suggestions to improve data usage for the governing board, including for all of the following:
- i) Professional development and technical assistance models that foster evidence-based decision making, strengthen analytical capacity to use available data tools, and enable end users to understand structural factors that influence outcomes;
 - ii) Communication structures that ensure a broad range of Californians know about and are using the tools of the data system;
 - iii) Feedback loops that ensure meaningful public input; and
 - iv) Additional tools that would address strategic objectives for the data system.
- d) Requires the advisory board to consult with data experts and intended data users, including members of the public, when developing data use priorities.

EXISTING LAW:

- 1) Establishes the California Cradle-to-Career Data System Act.
 - a) Declares the intent of the Legislature to do all of the following: build a data system to enable partner entities to share information in a manner that promotes data privacy and security; design a data system that minimizes the need for new infrastructure, is adaptable, and is flexible to meet future needs; and serve students and families.
 - b) Establishes the California Cradle-to-Career Data System Workgroup to: assess and recommend data system structural components, processes, and options for expansion and enhancement of data system functionality, to be outlined in two legislative reports; and advise ongoing efforts to develop, administer, and enhance the data system.
 - c) Requires the partner entities to, and the University of California is requested to, enter into memoranda of understanding for data sharing purposes, as necessary, for the

implementation of the California Cradle-to-Career Data System. (Education Code (EC) 10850 – 10859)

- 2) Requires the CDE to develop and maintain the California Longitudinal Pupil Achievement Data System (CALPADS), which must be used to accomplish all of the following goals:
 - a) To provide school districts and the CDE access to data necessary to comply with federal reporting requirements delineated in the federal No Child Left Behind Act of 2001;
 - b) To provide a better means of evaluating educational progress and investments over time;
 - c) To provide local educational agencies information that can be used to improve pupil achievement;
 - d) To provide an efficient, flexible, and secure means of maintaining longitudinal statewide pupil level data;
 - e) To facilitate the ability of the state to publicly report data, as required by the federal government; and
 - f) To ensure that any data access provided to researchers, as required pursuant to the federal Race to the Top regulations and guidelines is provided, only to the extent that the data access is in compliance with the federal Family Educational Rights and Privacy Act (FERPA) of 1974. (EC 60900)
- 3) Recognizes that a longitudinal pupil data system provides direct and tangible benefits to pupils, educators, policymakers, and the public. States that the Legislature intends to make statewide longitudinal education data accessible to, and used to inform and engage, authorized stakeholders in an effort to support the continuous improvement of instruction, operations, management, and resource allocation, and in a manner that complies with all federal and state privacy laws. Further states that the Legislature intends to make statewide longitudinal education data available and accessible to researchers so they may evaluate the effectiveness of instructional materials, strategies, and approaches for educating different types of pupils in a manner that complies with federal and state privacy laws. (EC 49079.5)
- 4) Establishes the California Postsecondary Education Commission (CPEC), and tasks the CPEC with the responsibility of coordinating public, independent, and private postsecondary education in California and providing independent policy analyses and recommendations to the Legislature and the Governor on postsecondary education issues, including developing and maintaining a comprehensive data base, and supporting longitudinal studies of individual students as they progress through the state's postsecondary educational institutions. (EC 66900-66906)
- 5) Establishes the Individual Privacy Act, which declares that the right to privacy is a personal and fundamental right protected by Section 1 of Article I of the Constitution of California and by the United States Constitution and that all individuals have a right of privacy in information pertaining to them. (Civil Code 1798)

- 6) Protects the privacy of student education records in federal law with the FERPA. The law applies to all schools that receive funds under an applicable program of the U.S. Department of Education. FERPA gives parents certain rights with respect to their children's education records. These rights transfer to the student when he or she reaches the age of 18 or attends a school beyond the high school level. (20 U.S.C. § 1232g; 34 CFR Part 99)

FISCAL EFFECT: Unknown

COMMENTS:

Need for the bill. According to the author's office, "California is just one of a handful of states lacking a data system that spans across educational segments and into the workforce. Our current systems exist in silos that do not talk to each other, meaning policymakers and researchers are unable to answer basic questions about student progress and outcomes. We are unable to adequately evaluate whether or not policy choices, such as the adoption of the Local Control Funding Formula or Associate Degrees for Transfer, are actually closing equity gaps and helping the state meet its education and workforce goals.

Pursuant to SB 75 (Committee on Budget and Fiscal Review) of the 2019-20 Budget Act, more than 170 stakeholders from 15 state agencies, numerous educational institutions, research and policy organizations, and community groups have worked together over the past year to design a blueprint for the California Cradle-to-Career Data System. AB 99 faithfully enacts these recommendations and will be designed with privacy and security of state data as the top priority. The proposed data system will be a neutral source of high-quality information, paired with tools to help a range of stakeholders take action on this information."

Existing California data systems. California collects data about students' characteristics, their attendance and enrollment patterns, and their progress and outcomes. This includes:

- *California Department of Education (CDE).* Maintains the CALPADS, primarily for the purposes of facilitating compliance with federal and state reporting requirements.
- *California Community Colleges (CCC).* Designed by the California Community Colleges' Chancellor's Office, the Management Information Systems (COMIS) which has shifted from being used to facilitate resource allocation to focusing on student outcomes as a result of state accountability and reporting requirements.
- *California State University (CSU).* Maintains an Enrollment Reporting System (ERS) that is primarily used for state and federal reporting requirements. There have been recent efforts to combine this data with other data they collect, including financial and staffing data.
- *University of California (UC).* The Office of the President collects data primarily for state and federal reporting, but is developing the UC Data Warehouse to better integrate student data.

Table 1. California education systems student-level data

System	Student Identifier	Data Elements	Source of Data	Data Tools (publicly accessible)
CDE	Statewide student identifier (SSID)	<ul style="list-style-type: none"> Demographics Course enrollments Attendance Special program eligibility Discipline incidents Completion (diploma, GED) 	K-12 school districts report data twice in the fall, and at the end of the school year	<ul style="list-style-type: none"> DataQuest California School Dashboard Other summary reports on CDE website Ed Data
CCC	Social Security Number (SSN)	<ul style="list-style-type: none"> Demographics Course enrollments/grades Financial aid Special populations/programs (e.g. disabled) Educational goal Participation in orientation, other matriculation services Degrees/certificates 	Colleges/districts submit some data each term and other data annually	<ul style="list-style-type: none"> COMIS Student Success Scorecard Salary Surfer
CSU	SSN	<ul style="list-style-type: none"> Application information Demographics Course enrollments/grades Financial aid Degrees 	Campuses submit some data each term and other data annually	<ul style="list-style-type: none"> Student Information Dashboard Other summary reports on Analytic Studies Division website
UC	SSN	<ul style="list-style-type: none"> Application information Demographics Course enrollments/grades Financial aid Degrees 	Campuses submit some data each term and other data annually	<ul style="list-style-type: none"> UC Information Center UC Accountability Report

Source: Education Insights Center Policy Brief, “California’s Maze of Student Information: Education Data Systems Leave Critical Questions Unanswered,” August 2017.

While the primary purpose of existing data systems is to facilitate compliance with state and federally mandated reporting, each segment has been making efforts in recent years to make the data more useful to policymakers and the public. For example, the CSU Chancellor’s Office has developed dashboards for internal use on its campuses and the CCC Chancellor’s Office has created Student Success Scorecards to display student progress.

Beyond the educational segments themselves, data must be reported to or received from various other state entities, including: the California Student Aid Commission (CSAC), the Employment Development Department (EDD), and the California Department of Consumer Affairs (DCA).

According to an August, 2017 policy brief by the Education Insights Center, *California's Maze of Student Information: Education Data Systems Leave Critical Questions Unanswered*, in order to address the gaps in our current system, institutional research and planning officials from the CDE and the CCC, CSU, and UC system offices sought to establish a "federated" model of sharing student data by signing an interagency agreement that allows the exchange of student records for specific purposes, with approval of all parties required on the use of the data and how analyses are reported for each exchange. Because the effort did not involve a central coordinating body, the attempt was stymied by staffing turnover, a lack of funding to support the work, and a lack of political will to provide the appropriate policy and governance support.

Further, voluntary data sharing agreements between local entities have been more successful and highlight the demand for a comprehensive student data system. Examples include:

- *Cal-PASS Plus*. Created and operated with state funding through the CCC Chancellor's Office, is managed through a partnership between the San Joaquin Delta College and the nonprofit Educational Results Partnership. The data are used to support several Regional Learning Collaboratives, and initiatives by the community colleges that include the Multiple Measures Assessment Project and the LaunchBoard.
- *The California College Guidance Initiative (CCGI)*. An effort that receives both state and philanthropic funding, facilitates the electronic sharing of students' academic transcripts and their college and career plans between high schools and postsecondary institutions.
- *eTranscript California*. This platform transfers student-level course, grade, and certain other data files (such as degrees earned) across California's higher education segments. Most of these electronic transcripts are for community college students applying for transfer admission to CSU or the UC.
- *The CORE Data Collaborative*. Evolved from the nonprofit CORE Districts partnership among eight large school districts in California. The Collaborative is open to all K-12 school districts in California for a fee, and gives them access to additional measures of school performance and improvement not available through the state accountability system.

The need for a longitudinal data system. California is one of a few remaining states in the nation without a longitudinal data system that links K-12 education with postsecondary. Forty-three states have or are developing statewide systems that link K-12 data with postsecondary data, and 33 link education data to workforce data (California Competes, 2018). California can benefit from the lessons learned from the implementation of other states' longitudinal data systems. According to a 2018 policy brief by the Public Policy Institute of California policy Brief, *Modernizing California's Data System*, "Many successful models exist, demonstrating that such systems can work without compromising data security and student privacy. Promoting student success in California ultimately requires a better understanding of how prior educational experiences affect students' subsequent academic achievement, work, and earnings."

Without such a system in place, California policymakers must rely upon information yielded from datasets not linked between education segments that often lack a longitudinal structure which could inform their decisionmaking. A challenge exists when trying to answer critical questions, including: What are the long-term effects of state intervention programs and targeted resource allocations in primary education, such as the Local Control Funding Formula's supplemental and concentration grants? Are non-traditional instructional modes, such as nonclassroom-based charter schools and community schools meeting their goals? To what extent are students successfully transferring from community colleges to the UC, the CSU, or other four-year institutions and how can they be better prepared?

According to a 2020 report from the Data Quality Campaign, *Using Data to Understand What Works: Research and the COVID-19 Crisis*, "Actionable research provides state and district leaders with insights into the policies and programs that best serve their communities." Practitioners, researchers and policymakers largely agree on the need for a statewide data platform. But the most important work will be able to occur once a comprehensive California data system is in place: the focus can shift to the work of improvement rather than the work of sharing data (Policy Analysis for California Education, 2018). Many states have established public and private partnerships in order to analyze data from longitudinal data systems and inform policymaking:

- *Kentucky*: Kentucky's Center for Statistics uses the state's data to conduct analyses directly related to statewide education through workforce pathways, with four key focus points: 1) expand data access and use to inform decisionmaking, 2) evaluate Kentucky's education and workforce programs over time, 3) connect supply and demand of Kentucky's future workforce, and 4) measure the impact. Kentucky's work includes a prioritization of user-friendly data reporting and targeted trainings to help stakeholders, including policymakers, understand how to use the data.
- *Washington*: Washington's Education Research and Data Center developed a research agenda that seeks to understand more about education and workforce outcomes and use that information to inform policy decisions. Some of their research questions include: What are the education and workforce outcomes of low-income students (Free or Reduced Price Lunch-eligible students)? What are their postsecondary financial aid profiles? How are students from specific high schools performing at the post-secondary level, and what are the strongest predictors of post-secondary success.
- *Tennessee*: The Tennessee Education Research Alliance is a partnership between the state department of education and researchers at Vanderbilt University that uses education data to inform policy decision in the state. Their research agenda includes supporting educator professional learning, improving low-performing schools and strengthening Tennessee's educator labor market.

What longitudinal data system model best supports California's needs? According to a 2021 article from Ed Insights, *Why the Simplest Cradle-to-Career Data System May be the Best Place to Start*, there are different models for the data system currently under consideration in California. "The different models are based on different technological processes and they provide different information, which then support different purposes:

- *A traditional Statewide Longitudinal Data System (SLDS), or “P-20W” (preschool through workforce) data system, connects student records across education systems and to state workforce data. The data are updated after each school term, are made accessible to different audiences through reporting and analysis tools targeted to them, and are used for research to inform education policy and practice to achieve better and more equitable outcomes for all students.*
- *A frequent upload system allows educators in high schools and postsecondary institutions to access more up-to-date information, based on frequent (such as monthly or weekly) uploads of data to the system, which can be used to provide services to individual students as they progress from one institution to another across the educational continuum.*
- *A real-time data system involves connecting the student information systems at individual institutions through a technological interface, which enables those institutions to access “live” data in each other’s systems without needing to upload the data to any central repository. While some people refer to a frequent upload model as a “real-time” data system, an actual real-time system can only be created by the education institutions and systems themselves, as it involves connecting their individual data systems rather than creating any separate, combined data system. Doing this poses significant cost and technological barriers related to the many different data platforms in use across California’s schools and colleges, particularly within the K-12 sector.”*

The SLDS and frequent upload models are the two currently under consideration in California. Establishing a SLDS would involve matching student records across the existing California public education data systems, bringing a long awaited coherence. Notably, a critical limitation is that it does not provide frequent (weekly or monthly) uploads of information that can be used to support the transition of individual students across education systems, such as between a community college and a CSU or UC. The frequent upload model can provide individual student information however, due to the uploading schedule this model may put a strain on data providers (such as school districts), take several years to implement and increase data security risks due to the number of individuals entering information.

The Cradle-to-Career Data System Act of 2019. In 2019, Budget Act established the California Cradle-to-Career Data System Act in the Budget Act, which set out requirements for the development of a statewide data infrastructure. The Act requires that this data system ensure that educational, workforce, financial aid, and social service information is fully leveraged to address disparities in opportunities and improve outcomes for all students from cradle to career. The 2019 Budget Act appropriated \$10 million one-time General Fund to the Office of Planning and Research (OPR) for initial work related to developing an integrated education data system. Of this amount, \$4 million was for work group planning and matching student records between K-12 and higher education. The work group included 15 representatives from specified education and other departmental agencies. Remaining funding was intended to support the initial build-out of the data system, contingent on approval of an expenditure plan by the Joint Legislative Budget Committee.

Proposals and legislative reports. Over the course of 2020, the Governor’s Office, with support from WestEd, lead a process to design the first phase of the California Cradle-to-Career Data System. Stakeholders helped to develop a blueprint for the data system. The proposed data

system is imagined as a neutral source of high-quality information, allowing the public open access to analytical tools, including dashboards, a query builder, summaries of key student and employment outcomes, and a research library. Researchers could request access to restricted data for authorized purposes. Students and their families could use a suite of operational tools that support college and career planning, college-eligibility monitoring, electronic transcripts, and access to financial aid and other services.

A Legislative Report was provided in December 2020, and outlined the workgroup's recommendation for the state to fund three data projects: 1) an integrated education data system that links records from various state agencies, including the CDE, the higher education segments, the CTC, EDD, and CDSS; 2) an expansion of CCGI to school districts throughout the state; and 3) an upgrade to eTranscript California to, among other things, include specific skills students acquired through competency-based education or other forms of nontraditional learning. The report included the following proposed implementation phases: 1) focus on linking early learning and care, K-12, postsecondary, employment, and financial aid data, and 2) expand information on workforce training programs, health and social services. The proposal for phase one includes a recommended five-year process:

- Year one: Establish the governing structure, staff, and technical solutions; link the core data sets (including K-12, public postsecondary, financial aid, employment, and limited social service and apprenticeship data points); implement a user-centered design process; and make infrastructure improvements to make the operational tools to support their scaling. The budget for year one is between \$15-20 million.
- Year two: Launch the project website and public tools; approve the first data requests; make further infrastructure improvements; and develop the professional development infrastructure.
- Year three: Expand the dataset to include independent colleges and information from the National Student Clearinghouse on colleges in other states; deploy new features for operational tools.
- Year four: Expand the dataset to include early learning and care, private colleges, and teacher credentialing; develop plans for expanding social service, health, and workforce data sets; deploy new features for operational tools; expand professional development; and make further improvements to public tools.
- Year five: Expand the data set to include social service, health, and workforce information; fully scale operational tools; evaluate the data system's structure, operational tools, professional development, and hosting; and identify strategic objectives and data sets for phase two.

A second report including additional implementation specifications, including an estimate of ongoing costs for the data system is due by June 30, 2021.

Governance. The Cradle-to-Career Data System would be governed jointly by a board made up of representatives of state agencies and stakeholders who use this information. Two-thirds of the governing board's seats would be apportioned to entities providing data and one-third would be

members of the public appointed by the Governor and the Legislature. Two advisory boards would also be created, one to ensure that the system includes actionable data, and the other two ensure that the intended audiences are aware of the data and know how to use them.

Managing Entity. The governing board would also oversee the managing entity, which would be a new program within the Government Operations Agency (GovOps). Consistent with its mission of supporting the work of other state agencies, GovOps would provide the services and technical expertise necessary for the data system. It would incubate the Cradle-to-Career Data System for the first five years, after which the managing entity structure would be reassessed by the governing board.

Sharing data sets. Information from each data provider would be stored in the cloud in a secure repository. The core data set used for the dashboards and query builder would be kept in a centralized database, and other information would be linked for approved purposes. Each data provider would upload a subset of their information once per year. To help safeguard individual privacy, records for individuals would be matched using a variety of data points, and unique identifiers would be assigned for each data pull.

Governor's Proposed Budget. The Governor's Budget proposal provides \$11.5 million ongoing and \$3 million one-time General Fund to develop the Cradle-to-Career Data System within the GovOps. Additionally, the Budget provides \$3.8 million ongoing Proposition 98 General Fund to support the California Career Guidance Initiative (CCGI). CCGI provides an interface for sharing student data between high schools, students, and families that could be integrated into the Cradle-to-Career Data System.

The January 2021 Governor's Budget Summary stated, in part:

California is developing a comprehensive longitudinal data system—the infrastructure that enables policymakers, practitioners, and the public to understand how individuals use state programs to move along a path to achievement. Accordingly, the state established the California Cradle-to-Career Data System Act in 2019 to guide the planning for, and development of, a longitudinal data system.

AB 99 (Irwin) and the Governor's Budget. This bill and the Governor's January 2021 Budget proposal are similar, however the Governor's Budget provides greater implementation and operational detail, including stating the purpose of the Cradle-to-Career Data System, and outlines the roles and responsibilities of the Managing Entity and Governing Board. Two notable differences between the two proposals: 1) AB 99 (Irwin) does not contemplate the costs necessary to implement the Cradle-to-Career Data System, and 2) the composition of governance structure.

The Governor's Budget is aligned to the Cradle-to-Career Data System's workgroup recommendations included in the December 2020 Legislative report: two-thirds of the governing board's members would be apportioned to entities providing data and one-third would be members of the public appointed by the Governor and the Legislature. Of the public members, four would be appointed by the Governor, one would be appointed by the Speaker of the Assembly, and one would be appointed by the President Pro Tempore of the Senate.

This bill includes the same makeup of two-thirds of the members would be for data providing entities, and one-third to members of the public, but the composition of the public members differ. This legislative proposal evenly divides the public members among the Governor, Speaker of the Assembly, and the President Pro Tempore of the Senate, each with two public member appointments.

AB 99 (Irwin)	Governor's Budget – 2021
<ol style="list-style-type: none"> 1) Superintendent of Public Instruction or his/her designee 2) Chancellor of the California Community Colleges or his/her designee 3) Chancellor of the California State University or his/her designee 4) President of the University of California or his/her designee 5) President of the Association of Independent California Colleges and Universities or his/her designee 6) Chief of the Bureau of Private Postsecondary Education or his/her designee 7) Executive Director of the California Student Aid Commission or his/her designee 8) Executive Director of the Commission on Teacher Credentialing or his/her designee 9) Director of the California Department of Social Services or his/her designee 10) Secretary of the California Health and Human Services Agency or his/her designee 11) Secretary of the California Labor and Workforce Development Agency or his/her designee 12) Director of the Employment Development Department or his/her designee 13) Two public members, to be appointed by the Governor: <ol style="list-style-type: none"> a) One public member who is a classroom teacher in a public elementary or secondary school. b) One public member who is a school leader of a public elementary or secondary school, including, but not limited to, an administrator, superintendent, principal, or counselor. 	<ol style="list-style-type: none"> 1) Superintendent of Public Instruction or his/her designee 2) Chancellor of the California Community Colleges or his/her designee 3) Chancellor of the California State University or his/her designee 4) President of the University of California or his/her designee 5) President of the Association of Independent California Colleges and Universities or his/her designee 6) Chief of the Bureau of Private Postsecondary Education or his/her designee 7) Executive Director of the California Student Aid Commission or his/her designee 8) Executive Director of the Commission on Teacher Credentialing or his/her designee 9) Director of the California Department of Social Services or his/her designee 10) Secretary of the California Health and Human Services Agency or his/her designee 11) Secretary of the California Labor and Workforce Development Agency or his/her designee 12) Director of the Employment Development Department or his/her designee 13) Four public members, to be appointed by the Governor: <ol style="list-style-type: none"> a) Two K-12 practitioners to serve as a representative of K-12 educators, counselors and administrators. b) Two members of the public. 14) Two members of the public, to be appointed by the Legislature: <ol style="list-style-type: none"> a) One member of the public to be appointed by the Speaker of the Assembly.

<p>14) Four members of the public, to be appointed by the Legislature:</p> <ul style="list-style-type: none"> a) Two members of the public to be appointed by the Speaker of the Assembly. b) Two members of the public to be appointed by the President Pro Tempore of the Senate. 	<ul style="list-style-type: none"> b) One member of the public to be appointed by the President Pro Tempore of the Senate.
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Legislative Analyst’s Office (LAO) Recommendations. In March 2021, the LAO released a report, *The 2021-22 Budget: “Cradle to Career” Data System*, and provided the following recommendations to the Legislature:

- *Require Administration to Use Standard Approval and Oversight Processes.* The LAO recommends the Legislature specify in statute that the administration use the California Department of Technology’s (CDT) Project Approval Lifecycle process to plan the entire Cradle-to-Career data system (including CCGI and eTranscript California), as well as have independent oversight, verification, and validation of the system upon completing the PAL process. CDT could determine that the CCGI and eTranscript California are updates to existing IT systems and could delegate those projects back to their respective administering entities to complete the planning phase. If the Legislature subsequently approved and funded those projects, then they could proceed with the development and implementation without needing to complete the rest of the PAL process.
- *Require Administration to Provide More Justification for Budget Requests.* The LAO also recommends the Legislature request that the administration provide additional information that would support its budget proposals. At a minimum, they recommend the Legislature request: (1) market research that evaluates available technical solutions for the system and estimates the one-time and ongoing project costs based on system requirements, (2) a schedule for completion of project activities, and (3) workload justifications for the requested GovOps positions. In the absence of this information, the LAO recommends the Legislature wait to approve the Governor’s budget request until the project completes the Alternative Analysis phase of the PAL process.
- *LAO Budget Alternative Funds Some Staff and Start-Up Activities While Awaiting Better Information.* The LAO’s alternative would designate \$1.2 million in remaining 2019-20 funds for board meetings and some GovOps project staff as well as knowledge transfer activities from WestEd to GovOps. At this time, the alternative would not fund the costs of the pilot or technology procurement activities, as these components would be undergoing further analysis as part of the PAL process. Upon completing the PAL process, better estimates of these costs, as well as other potential project costs, would be available. The LAO recommends that the administration submit a future budget request on these project components once more reliable cost estimates are available.

Many schools in California closed for in-person instruction as a result of COVID-19. On March 4, 2020, Governor Newsom proclaimed a State of Emergency in California as a result of the threat of the COVID-19 virus. An Executive Order (EO) issued on March 13, 2020, authorized, but did not require, LEAs to close schools for in-person instruction as a result of the threat of COVID-19. The State subsequently began using a color-coded tiered system to

determine when schools could reopen for in-person instruction. Except for LEAs located in the highest tier of virus spread, the decision regarding whether to close or re-open schools was left to each LEA, in consultation with local public health officials.

The vast majority of California public schools were closed for in-person instruction through the end of the 2019-20 school year, and many also began the 2020-21 school year by offering only or mostly remote instruction. As of January 2021, due to increasing surges in the rates of COVID-19, many schools throughout the state, including those in the largest school districts, remained closed for in-person instruction. As of this writing, most school districts had either begun to return students to some form of in-person instruction, or have plans to do so soon.

Given the disproportionate impacts of the COVID-19 crisis and associated learning loss, advocates for the Cradle-to-Career Data System maintain that if the longitudinal data system had been in place prior to the outbreak of the pandemic, the datasets could have helped determine who was most affected by the pandemic, where to target support, and how to prepare for future crises.

Arguments in support. The California Charter Schools Association writes, “This is a critical step in addressing the limited capabilities and disjointed nature of the current systems. The proposed system would ensure the capability to evaluate reforms and interventions, monitor student progress and outcomes, and craft effective solutions. This proposed system would connect critical data from early education, college and career indicators up through entry into the workforce. This level of data is what is currently lacking in our system as schools across the state attempt to close achievement gaps and address inequities. The Cradle to Career data system will ensure that policymakers better understand the impact of initiatives statewide.”

Related legislation. SB 75 (Committee on Budget and Fiscal Review) Chapter 51, Statutes of 2019. The 2019 education omnibus budget trailer bill, established the California Cradle-to-Career Data System Act.

AB 1466 (Irwin) of the 2019-20 Session as introduced would have established a statewide student longitudinal database taskforce charged with creating a document setting forth the guidelines for a forthcoming database. This bill was later amended outside the jurisdiction of this Committee and was vetoed by Governor Newsom.

SB 2 (Glazer) of the 2019-20 Session would have required the CPEC to convene a review committee for purposes of advising the commission on the establishment, implementation, funding, and ongoing administration of the database. The bill would have required the commission to review the committee’s recommendations and develop a database plan on or before July 1, 2021. The hearing for this bill in the Assembly Education Committee was canceled at the request of the author.

AB 776 (Kalra) of the 2019-20 Session would have required county offices of education to issue statewide unique pupil identifiers on behalf of state and federally funded childcare and development programs not operated by local education agencies. This bill was vetoed by the Governor, with the following message:

I support the intention of this bill, and I believe there is a need for additional data in early childhood policymaking. However, we should build on our strong ongoing efforts in this space rather than starting anew.

The action proposed by this bill should be part of ongoing efforts to better integrate existing data. Moreover, any assessment of a potential comprehensive early childhood data system should take place in the context of the Master Plan for Early Learning and Care and the recently established Early Childhood Policy Council.

SB 1298 (Simitian) Chapter 561, Statutes of 2008, created the Education Data and Information Act of 2008. This bill required the convening of a high-level working group to decide the best governance structure for a longitudinal data system linked between the education segments; directed the State Chief Information Officer to prepare a strategy plan outlining a clear path for technical implementation; and required K-12 and higher education to begin to use a common student identifier, so that once a governance structure and technical architecture are in place, records can be linked from prekindergarten through university.

SB 885 (Simitian) of the 2011-12 Session, would have authorized the CDE, UC, CSU, Chancellor of the CCC, CTC, EDD, and the California School Information Services to enter into a joint powers authority to construct a P-20 student data system. This bill was vetoed by the Governor with the following message:

This bill is unnecessary because the majority of the entities impacted by this measure have already established an interagency agreement.

Should these entities choose to form a joint powers agreement in the future, they do not need additional statutory authority to do so. Whether they should or not given the current fiscal constraints – I have my doubts.

AB 2190 (John A. Pérez) of the 2011-12 Session and AB 1348 (John A. Pérez) of the 2013-14 Session would have established the California Higher Education Authority, which would have been tasked to develop and maintain a comprehensive database for higher education. This bill was held in the Assembly Appropriations Committee.

SB 1138 (Liu) of the 2011-12 Session would have required the CDE to succeed data management responsibilities previously held by the California Postsecondary Education Commission (CPEC). This bill was held in the Senate Appropriations Committee.

REGISTERED SUPPORT / OPPOSITION:

Support

California Alternative Payment Program Association
California Association of Student Councils
California Chamber of Commerce
California Charter Schools Association
California Competes: Higher Education for A Strong Economy
California Edge Coalition
The Institute for College Access and Success

Opposition

None on file

Analysis Prepared by: Marguerite Ries / ED. / (916) 319-2087