California Cradle-to-Career Data System

Report to the Legislature

FY 2022-23

September 2023

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The California Cradle-to-Career Data System was named in state legislation to be California's source of actionable data and research on education, economic, and health outcomes for individuals, families, and communities. The California Cradle-to-Career Data System is envisioned to be the most inclusive data system of its kind in the nation.

Section 1: Introduction

This report documents the progress made during 2022–23, the second year of the implementation of the California Cradle-to-Career (C2C) Data System. The first year prioritized continuity with the vision and plans defined during the C2C planning process. Now in its second year, C2C is focused on advancing the strategic vision, mission, and goals of the Office of Cradle-to-Career Data. (See Appendix A for a progress summary based on the legislation.)

As part of the strategic planning process, Cradle-to-Career identified problems and areas of opportunity that can be addressed through the work of the Office of Cradle-to-Career Data (Office). This report to the California State Legislature takes an in-depth look at the progress made across all C2C divisions, which include Operations, Engagement, Analytical Tools, Practical Tools, and Boards. The report also outlines the priorities, goals, and objectives of the Office for the coming year.

What problems will the California Cradle-to-Career Data System solve?

1. Millions of data points, made possible through taxpayer resources, have been collected and validated at the state level. But too often, that information is siloed in different state-level entities, making it difficult for decisionmakers to answer important questions. C2C's primary goal is to build a linked analytical dataset that connects existing state-level data on education, well-being, and job outcomes that will let decisionmakers answer important questions through the creation of dashboards on priority topics; query builders that break down the data by region, school district, or student demographics; and a data request process for researchers to conduct studies.

2. Students face confusing barriers when applying for college and financial aid, needing to navigate multiple platforms to complete applications and share information from their transcripts. These barriers can exacerbate existing disparities. C2C aims to solve this problem by coordinating with partners to scale practical tools for students. CaliforniaColleges.edu is the state's one-stop shop for applying to public colleges and universities, for originating financial aid, for college and career planning, and for the movement of transcript data from K12 to higher education. eTranscript California is intended to be a seamless platform for transferring transcripts across post-secondary institutions.

3. Communities lack equitable access to usable information and data to address their priorities, which the Office will address by engaging with communities and listening to their needs via a user-centered design process to create useful, accessible dashboards and practical tools; community engagement and input; practical trainings for using the dashboards and tools; and with a governance structure reflective of these priorities.

Section 2: Background

In 2021, [legislation](#) authorized the creation of the Office of Cradle-to-Career Data within state government housed under the Government Operations Agency (GovOps). The legislation also authorized the creation of a 21-member Governing Board and two 16-member advisory boards, and detailed specific implementation goals for the data system.

The California Cradle-to-Career Data System seeks to foster evidence-based decisionmaking to help Californians build more equitable futures and empower individuals to reach their full potential. The difficulty of using disconnected data systems presents challenges to understanding and responding to public health, economic, and social justice crises.

C2C is envisioned to be the most inclusive data system of its kind in the country, and deploys a three-pronged approach of:

» community engagement to inform development, interpretation, and awareness building about available information,
» tools to support college planning and transition, and
» an analytical data set on education, well-being, and job outcomes

This approach recognizes that students and teachers need different types of information than researchers and policy analysts and that community members can be outreach partners, co-interpreters, and users of information that the data system produces. In addition, to better equip users to understand equity gaps in context, the system integrates educational data with information on social services, financial aid, workforce training, and employment. The broader data set means that solutions are more likely to focus on structural factors that can be addressed through changes to practice, policies, and investments, rather than focusing narrowly on student characteristics.

Once fully implemented, the C2C Data System will provide expansive public access to one of the most comprehensive state longitudinal data systems in the nation, linking existing education, workforce, financial aid, and social service information to address disparities in opportunities and improve outcomes for all communities throughout California. The C2C Data System will be a suite of user-friendly resources focused on early learning through K-12 and higher education and providing financial aid and social services that help students reach their goals.

Mission

A statewide data system that will provide tools to help students reach their goals and deliver information on education and workforce outcomes.

Vision

The Cradle-to-Career System connects individuals and organizations with trusted information and resources, providing insights into critical milestones in the pipeline from early care to K–12 to higher education, skills training, and employment. The data system empowers individuals to reach their full potential and fosters evidence-based decisionmaking to help California build a more equitable future.

Cradle-to-Career Data System 2022–23 Accomplishments

Governance
- » Onboarded new Incoming Governing Board Chair for 2023-24, Robert Tagorda
- » Seated the 16-member Community Engagement Advisory Board and 16-member Data and Tools Advisory Board
- » Revised the C2C Governing Board's Governance Manual
- » Advisory Board application process - received 118 applications for 11 slots, up from 90 applications for 32 slots in 2022
- » Approved the 2023–24 work plan

Operations
- » Completed plan to move the Office of Cradle-to-Career Data to a permanent, inclusive space designed to foster community engagement
- » Filled initial 16 authorized positions, including additional Deputy Directors, to round out the leadership team
- » Received 10 additional positions and funding effective with the 2023-24 State Budget
- » Established office procedures within the Government Operations Agency
- » Established C2C organizational values

Community Engagement
- » Continued Community Conversations with 150+ members of the public
- » Finalized the preliminary branding for the Office, including the official California Cradle-to-Career Data System logo
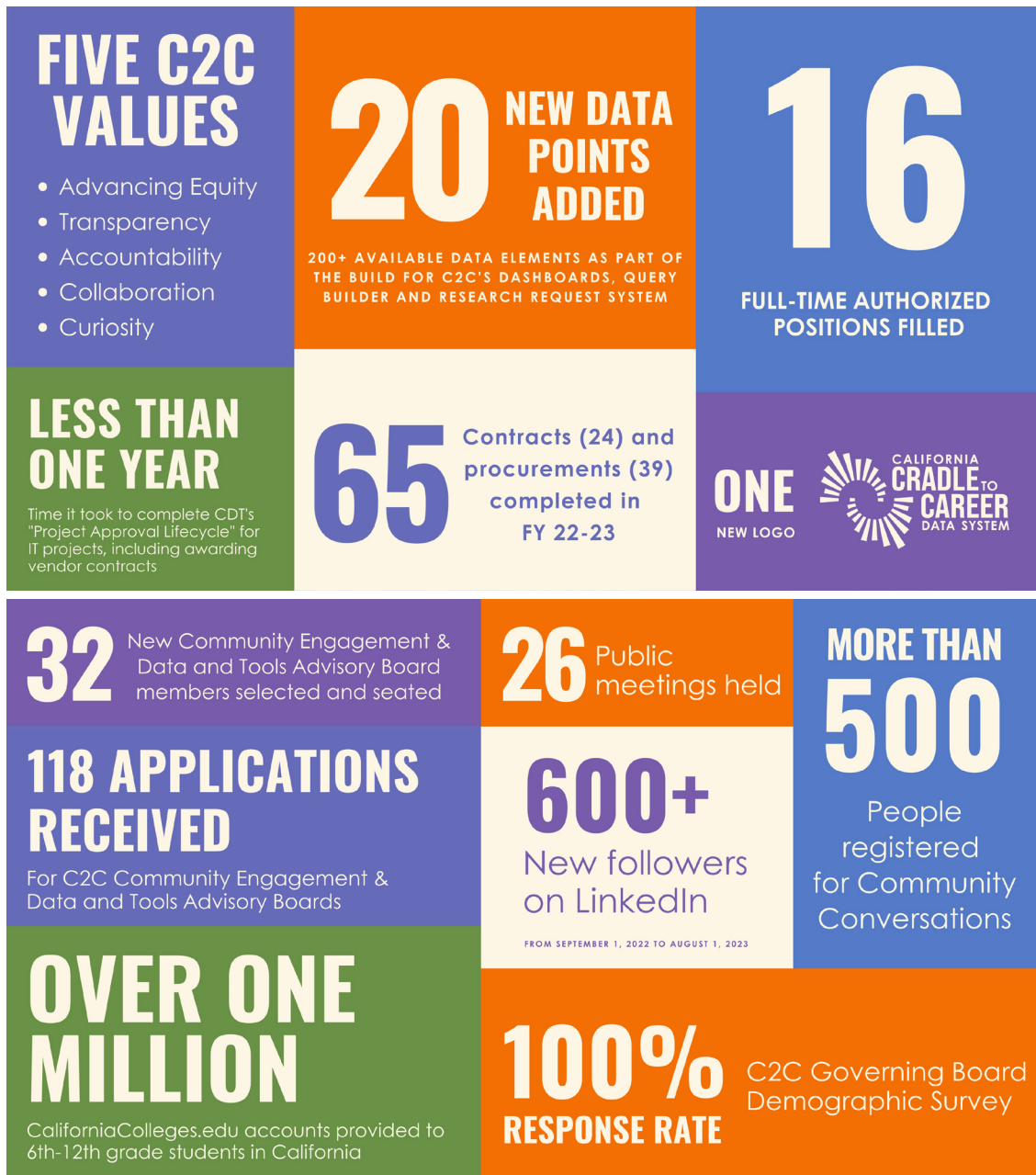- » Established Community Guidelines for how C2C will engage with communities

Data Programs
- » Continued C2C's User-Centered Design approach in the development of the data system.
  - » First Student Experience Audit completed in Fall 2022.
  - » Implemented a user-centered design process for the creation of initial dashboard, and established data points definitions.
- » Added 20 new data points from the California State University and the Commission on Teacher Credentialing to the P20W data set as part of the build for C2C's dashboards, query builder, and research request system.
- » Began exploration of eTranscript California 2.0, convening focus groups and listening sessions with all higher education segments in the state, including the University of California, California State University, Association of Independent California Colleges and Universities, and California Community Colleges, on creating a unified transcript system that can reduce barriers for students and facilitate skills-based hiring.

- » CaliforniaColleges.edu, a practical tool under the umbrella of Cradle-to-Career, provided accounts to approximately 1.5 million 6th-12th grade students.
- » CaliforniaColleges.edu expanded access to free tools on the platform, working with 204 California Local Educational Agencies (LEAs), up from 108 districts in the 2021-22 academic year.

Data Infrastructure
- » Launched and convened a Security Policies Task Force
- » Completed stage 4 of the Project Approval Lifecycle (PAL) process
- » Onboarded the next phase System Integrator and key technical strike teams that will assist C2C with the implementation, planning, coordination, and testing of the system.
- » Defined full file upload specifications with data providers
- » Developed and advanced the build of a best-of-breed technology stack, including a cloud hosting platform, data warehouse, master data management, and data visualization.

Exhibit 1: California Cradle-to-Career Data System Accomplishments, by the Numbers

FIVE C2C VALUES
- Advancing Equity
- Transparency
- Accountability
- Collaboration
- Curiosity

20 NEW DATA POINTS ADDED
200+ AVAILABLE DATA ELEMENTS AS PART OF THE BUILD FOR C2C'S DASHBOARDS, QUERY BUILDER AND RESEARCH REQUEST SYSTEM

16 FULL-TIME AUTHORIZED POSITIONS FILLED

LESS THAN ONE YEAR
Time it took to complete CDT's "Project Approval Lifecycle" for IT projects, including awarding vendor contracts

65 Contracts (24) and procurements (39) completed in FY 22-23

ONE NEW LOGO
CALIFORNIA CRADLE TO CAREER DATA SYSTEM

32 New Community Engagement & Data and Tools Advisory Board members selected and seated

26 Public meetings held

MORE THAN 500 People registered for Community Conversations

118 APPLICATIONS RECEIVED
For C2C Community Engagement & Data and Tools Advisory Boards

600+ New followers on LinkedIn
FROM SEPTEMBER 1, 2022 TO AUGUST 1, 2023

OVER ONE MILLION
CaliforniaColleges.edu accounts provided to 6th-12th grade students in California

100% RESPONSE RATE
C2C Governing Board Demographic Survey

Section 3: Governance

The authorizing legislation outlined the composition of the C2C Governing Board, which includes Governor's Office, State Senate, and Assembly appointees; data provider designees; and representatives from the Association of Independent California Colleges and Universities and California School Information Systems.

Governing Board

In its second year, the Governing Board met four times during the 2022–23 fiscal year, as required in statute. During these meetings, the board accomplished the following:

» Established an Ad Hoc Committee that reviewed and updated C2C's Governance Manual
» Established an Ad Hoc Committee that reviewed and developed C2C's strategic plan
» Established an Ad Hoc Committee that reviewed applications and recommended candidates for the Community Engagement Advisory Board and the Data and Tools Advisory Board
» Approved the formation of an Ad Hoc Committee to develop a recommended performance evaluation process
» Engaged in professional development sessions for high-performing public agency boards
» Engaged with Georgetown University Professors Pamela Herd and Donald Moynihan on advancing equity by engaging with their work on reducing administrative burden
» Reviewed and approved the work plan for 2023–24, a revised five-year implementation timeline, and a budget change concept request for the 2024–25 fiscal year
» Onboarded a new Governing Board Chair (Robert Tagorda) and approved a Chair-Elect for 2023-24 (Gavin Payne)

New objectives were established for Cradle-to-Career's Governing Board's governance culture during the strategic planning process, with a focus on ambassadorship as measured in progress boards discussed at every Governing Board meeting and in an annual governance survey starting in Fall 2023.

Advisory Boards

The authorizing legislation established that the data system would have two advisory boards to provide input and feedback and to make recommendations to the Governing Board:

» The Data and Tools Advisory Board examines whether the data system is providing actionable information and identifying ways to improve access to that information.

» The Community Engagement Advisory Board examines whether C2C is creating strong feedback loops with data users, supporting evidence-based decisionmaking and analytical capacity, and ensuring equitable access to actionable information.

The Community Engagement and Data and Tools Advisory Boards consists of 16 public members each, appointed by the Governing Board. Members include the end users of the data system, such as practitioners, families, students, adult learners and workers, community organization staff, research organization staff, and advocacy organization staff.

In September 2022, C2C seated the 32 members of the Community Engagement and Data and Tools Advisory Boards, who met four times during the 2022–23 fiscal year.

The C2C Governing Board, with input from the Advisory Boards, detailed in its Governance Manual a process for Advisory Board recommendations to be developed, discussed, and formally brought to the Governing Board. When there are significant gaps regarding feedback loops with data users, evidence-based decisionmaking and analytical capacity, and equitable access to actionable information, the Advisory Board may make formal recommendations about the community engagement framework to the Governing Board for ways to improve feedback loops.

At C2C's Fall 2023 Advisory Board meetings, Advisory Board members may bring forward proposals for ways to address a significant gap in C2C's work. Over the winter, the Office will work with the Advisory Boards and data providers to conduct feasibility studies of those proposals. At the Spring 2024 Advisory Board meetings, the Advisory Boards will discuss the feasibility study findings, amend the proposal(s) if needed, and then vote on whether a proposal should be advanced to the Governing Board as a recommendation.

One-third of Advisory Board members cycle off each year. The Office received 118 applications for 11 open Advisory Board slots in 2023, up from 90 applications for 32 available positions in 2022. A Governing Board committee reviewed the applications, scored them against a rubric, and then discussed the candidates in a public meeting. The committee's slate was brought to the full Governing Board for approval, and new Advisory Board members were appointed in August 2023.

Governing Board Engagement

In 2022-23, C2C staff led 22 meetings of the Governing and Advisory Boards:
» Four meetings of the Governing Board
» Three Community Engagement Advisory Board meetings
» Three Data and Tools Advisory Board meetings
» One joint Community Engagement and Data and Tools Advisory Board

meeting
- » Three meetings of the Strategic Planning Ad Hoc Committee
- » One meeting of the Advisory Board Ad Hoc Committee
- » Three meetings of the Governance Manual Ad Hoc Committee
- » Two meetings of the Executive Director Review Process Ad Hoc Committee
- » Two meetings of the Advisory Board Selection Ad Hoc Committee Meeting

Section 4: Operations

What Problems is Operations Addressing?

Prior to the California Cradle-to-Career Data System, there was no central, neutral state entity authorized and funded to bring together C2C-relevant data across different domains. No entity was empowered to facilitate this information integration across silos to provide insights, improve coordination, and remove barriers across large institutions.

This year, the Office of Cradle-to-Career Data worked to establish and operate a new state entity that uses secure, effective, and efficient processes and procedures to earn and keep the trust of data providers and the public.

Operational Plans and Budgets

In 2023, C2C supported the Governing Board in developing a 3-year strategic plan. The Governing Board approved the revised five-year timeline and updates to the Governance Manual. For this fiscal year, an annual strategic plan and budget were approved, as well as an annual work plan and budget (see Exhibit 2 below and on the following page). Additionally, the Office has continued work with other collaborating entities to develop necessary policies, enter into appropriate contracts, and ensure compliance with the law.

Exhibit 2: California Cradle-to-Career Data System Updated 5-Year Timline

UPDATED 5-YEAR TIMELINE				
Year 1: FY 2021-22	**Year 2: FY 2022-23**	**Year 3: FY 2023-24**	**Year 4: FY 2024-25**	**Year 5: FY 2025-26**
Operations » Appointed Executive Director » Defined leadership positions and initial staff recruitment	» Recruited leadership team » Filled initially authorized positions (16) » Received additional positions and funding effective with the 2023 State Budget » Established office procedures within GovOps	» House the C2C office in an inclusive space designed to foster community engagement » Fill newly authorized positions (total team size: 26) » Define fiscal and human resources needed to achieve C2C's statutory charge » Launch annual employee engagement survey	» Continued refinement of regular training on cyber security and data privacy » Review fiscal and human resources needed to achieve C2C's statutory charge » Continued refinement of DEIA training and supports, with feedback from annual employee engagement survey	» Office established as a fully functioning new state entity
Analytical Data » Signed Participation Agreement for data sharing » Defined procurement and implementation plans for technology products » Issued RFP for data warehouse » Completed Stages 1 and 2 of CDT's Project Approval Lifecycle for IT projects » Review of data element definitions identified during planning process	» Finalized detailed file upload specifications for all initial data submissions by partners » Completed Stages 3 and 4 of CDT's "Project Approval Lifecycle" for IT projects, including awarding vendor contracts » Launched Security Policies Task Force with data privacy and security experts from data partners » Executed contracts for the next phase System Integrator and 4 Strike Teams tailored to the technology stack » Initial build and configuration of technology stack	» Data providers submit reliable and timely data annually that C2C links and keeps secure » Design an initial dashboard on a priority topic » Expand teacher credentialing analytical data set » Expand analytical data set to include independent colleges	» Data providers submit reliable and timely data annually that C2C links and keeps secure » Develop a query builder that enables disaggregation » Develop the research data request process for the secure data enclave » Expand analytical data set to include private colleges » Expand analytical data set to include early learning and care information » Continue complying with all state and federal requirements and assessments for data security and privacy, with input from the Security Policies Task Force	» Data providers submit reliable and timely data annually that C2C links and keeps secure » Review technology infrastructure to ensure it continues to meet expectations » Expand analytical data set to include additional social services, health, and workforce information

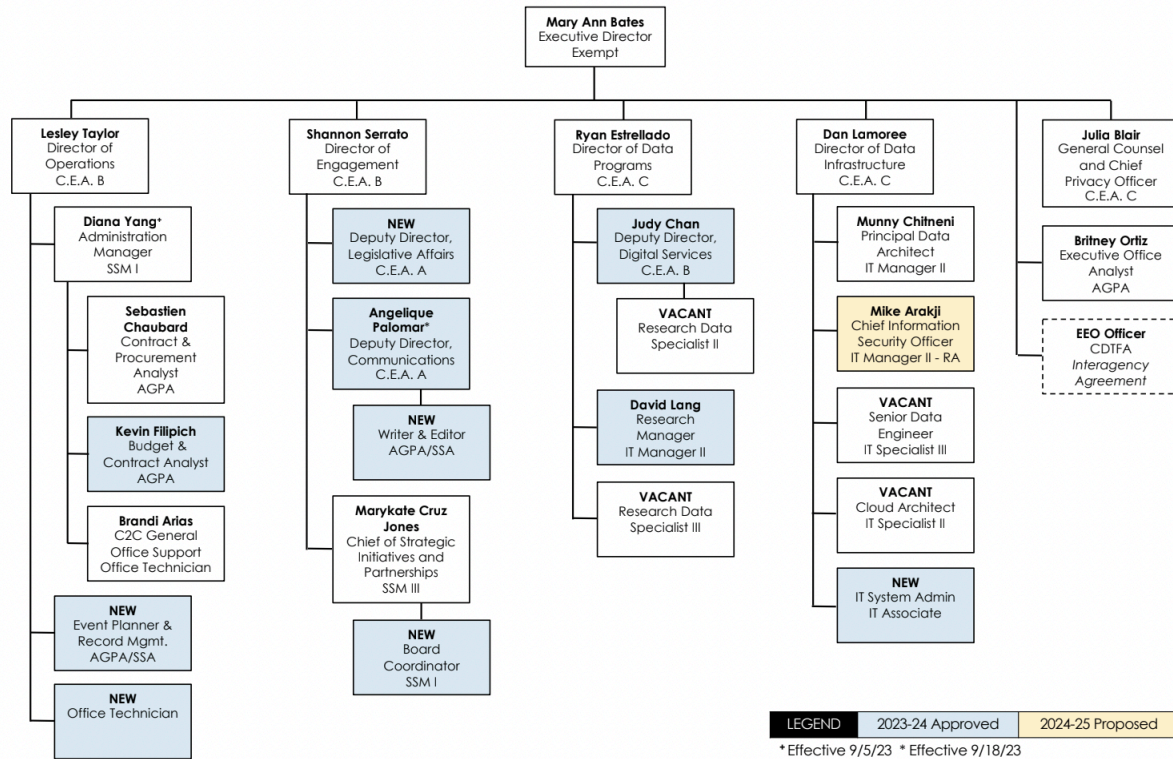|	UPDATED 5-YEAR TIMELINE, CONT.				
	Year 1: 2021-22	Year 2: FY 2022-23	Year 3: FY 2023-24	Year 4: FY 2024-25	Year 5: FY 2025-26
Practical Tools	» CCGI expanded access to CaliforniaColleges.edu planning tools and high school electronic transcript infrastructure	» CCGI expanded access to CaliforniaColleges.edu tools and continued to build technical implementation improvements with partners. » Launched annual Student Experience Audit » Assessed possibilities for postsecondary electronic transcripts and eTranscript infrastructure	» Promote CaliforniaColleges.edu as a one-stop shop for launching applications for college and financial aid » Annual Student Experience Audit » Create a roadmap for how eTranscript can become a seamless platform for transferring transcripts across post-secondary institutions » Assess possibilities for integrating competency-based education and supporting skills-based hiring	» Launch universal basic accounts at CaliforniaColleges.edu for all public high school students » Annual Student Experience Audit » Assess possibilities for integrated social services applications	» Champion the goal of reaching 95% of California's public high school students with CaliforniaColleges.edu accounts powered by real-time transcript data by Summer 2026 » Annual Student Experience Audit
Engagement	» Launched "Community Conversations" » Continued holding meetings open to public input	» Defined brand identity and communications strategy » Launched user-centered design work on data dashboards » Continued community engagement and feedback	» Provide public trainings on using data tools » Ensure information is trusted and useful by prioritizing transparency in communications and processes	» Deepen regional and community-based engagement with C2C's public-facing tools and resources » Establish baseline metrics for public-facing products for reporting	» Continuous improvement based on input and engagement » Share metrics on quality of engagement: C2C promotes equitable access to its engagement activities by region and key communities » Share metrics on actionable information: C2C data informs decisions, policy, and research
		» Engage with Governor's Office and the California Legislature on C2C's Legislative priorities >>>>>			
			» Continued prioritization of user-centered design for website, and all public-facing resources including dashboards, query builder, and researcher data request processes		
Boards	» Seated Governing Board » Elected Board Chair and Chair Elect » Developed Governance Manual to clarify processes for the Board	» Refined ad hoc committee and governance processes » Selected and seated Community Engagement Advisory Board and Data and Tools Advisory Board	» Launch annual governance survey for Governing Board members	» Refine onboarding, offboarding, and continuous strengthening of governance culture	
		» Share progress summaries at every Governing Board meeting			
			» Launch the annual recommendations and feasibility study process for Advisory Boards	» Continued appointments to Advisory Boards >>>>> » Annual recommendations and feasibility study process for Advisory Boards	

In FY 2022-23, the budget for Cradle-to-Career consisted of $10.26M ongoing funding, and $13.3M one-time start-up funding reappropriated from the prior year. One-time funds were available to encumber until June 30, 2023.

In its second year, the Office has continued to recruit leadership and build the team. At present, the Office has hired 16 full-time staff and one retired annuitant. Three additional recruitments are in progress. In 2022-23, the Office completed 65 contracts and agreements to support the implementation of C2C's work plan and accelerate progress toward accomplishing strategic goals. The Office has also been working to secure and prepare a physical space for staff and to host Governing Board meetings and community engagement meetings.

In the Legislature's 2023 Budget, C2C received $4.9M in additional ongoing funding, including ten new positions. C2C's operating budget for FY 2023-24 is $15.26M. This funding increase is intended to enable C2C to deliver on its statutory requirements to build and maintain a landmark statewide data system that prioritizes the security and privacy of the data, and the needs of end users including a focus on advancing equity, a user-centered design process, and tools and resources that are accessible and useful to California's diverse students and families.

Exhibit 3: California Cradle-to-Career Data System Organizational Chart

Organizational Chart for the Office of Cradle-to-Career Data
Established and Proposed Positions (eff. 8/3/23)

Mary Ann Bates
Executive Director
Exempt

Lesley Taylor
Director of
Operations
C.E.A. B

Diana Yang*
Administration
Manager
SSM I

Sebastien Chaubard
Contract &
Procurement
Analyst
AGPA

Kevin Filipich
Budget &
Contract Analyst
AGPA

Brandi Arias
C2C General
Office Support
Office Technician

NEW
Event Planner &
Record Mgmt.
AGPA/SSA

NEW
Office Technician

Shannon Serrato
Director of
Engagement
C.E.A. B

NEW
Deputy Director,
Legislative Affairs
C.E.A. A

Angelique Palomar*
Deputy Director,
Communications
C.E.A. A

NEW
Writer & Editor
AGPA/SSA

Marykate Cruz Jones
Chief of Strategic
Initiatives and
Partnerships
SSM III

NEW
Board
Coordinator
SSM I

Ryan Estrellado
Director of Data
Programs
C.E.A. C

Judy Chan
Deputy Director,
Digital Services
C.E.A. B

VACANT
Research Data
Specialist II

David Lang
Research
Manager
IT Manager II

VACANT
Research Data
Specialist III

Dan Lamoree
Director of Data
Infrastructure
C.E.A. C

Munny Chitneni
Principal Data
Architect
IT Manager II

Mike Arakji
Chief Information
Security Officer
IT Manager II - RA

VACANT
Senior Data
Engineer
IT Specialist III

VACANT
Cloud Architect
IT Specialist II

NEW
IT System Admin
IT Associate

Julia Blair
General Counsel
and Chief
Privacy Officer
C.E.A. C

Britney Ortiz
Executive Office
Analyst
AGPA

EEO Officer
CDTFA
*Interagency
Agreement*

LEGEND	2023-24 Approved	2024-25 Proposed

* Effective 9/5/23 * Effective 9/18/23

For more information about ongoing projects, please reference Appendix A.

Section 5: Engagement

What Problem is Engagement Addressing?

Communities across California lack equitable access to usable information and data to address their educational and workforce needs, and different users will need different types of information when accessing the data system.

During the implementation phase, C2C is engaging with members of the public to listen to and identify their information needs through user-centered design work, community engagement activities, and trainings and outreach for the data system's practical tools.

In addition to these endeavors, there are also mandatory legislative requirements that need to be upheld. In its second year, C2C worked to promote and scale practical tools like CaliforniaColleges.edu, the state's one-stop shop for college and career planning, through designing joint communications efforts with the public higher education segments in California and the California Department of Education. The Office also

monitored effective practices for longitudinal data systems by participating in state and national conversations coordinated by organizations across the country such as the State Higher Education Executive Officers Association (SHEEO), California IT in Education, the Data Quality Campaign, The Education-Trust West, California Competes, the Institute for College Access & Success, the Education Commission of the States, the Institute of Educational Sciences, and the Strategic Data Project. Additionally, the Office prepared and provided all required reports to the Legislature and the Governor's Office.

Community Engagement

Community engagement and transparency are key components of Cradle-to-Career's work, and the Office fostered relationships with members of the public in 2022-23 through the employment of a user-centered design process to solicit feedback, ensuring the voices of Californians are heard and centered.

In 2022-23, C2C held four Community Conversations with members of the public, with over 500 registrations to ensure continuous opportunities for input, enabling C2C to engage with key stakeholders as the Office works to build the most inclusive data system in the nation.

By prioritizing community engagement, the Office is working to ensure information from the data system is trusted and useful by prioritizing transparency in communications and processes, promoting equitable access to engagment activities by region and key communities, and prioritizing actionable information.

Identity and Branding

In its second year, the California Cradle-to-Career Data System laid the foundation for the C2C visual brand with the implementation of an official logo and a vibrant and cohesive brand identity that reflects the vision and mission of the California Cradle-to-Career Data System. Utilizing the user-centered design process, C2C solicited feedback from the public and its Governing and Advisory Boards in real-time and via survey, synthesizing input and stakeholder feedback to finalize a logo that visually communicates C2C's work and goals. The Office also designated a Governing Board Design Liaison to ensure continuous input and guidance from the Board as C2C works to develop its data dashboards and release an updated website in the 2023-24 fiscal year.

Equity Efforts

The data system is envisioned to be the most inclusive data system of its kind in the country and is required by statute to center accessibility via user-centered design and in-depth community engagement with the many end users of the data system across California. Cradle-to-Career is proud to support Governor Newsom's executive order to advance equity in the state, and in 2022, the Office drafted an equity action plan focused on key priorities to ensure equity is embedded in C2C's mission, policies, and practices.

As written in statute, C2C's Governing Board is intended to reflect the cultural, racial, geographical, economic, and social diversity of California, so it is important that the

Board not only represent the key stakeholders of the California Cradle-to-Career Data System, but the wide range of Californians that the data system is charged with serving. Governing Board members discussed a request sent to the Office seeking the demographic information of C2C's leadership, and following approval from the Board, C2C facilitated the collection of Governing Board demographic information through a self-reported anonymous via survey, with the information posted in aggregate for the purposes of equity and transparency.

Cradle-to-Career also entered into a multi-year contract for translation and interpretation services to ensure C2C's public meetings and materials are available and accessible in the languages needed for the populations that C2C serves.

Press and Engagement

As the Office of Cradle-to-Career Data continued the development of the first-of-its-kind longitudinal data system, advocacy and research groups and the press showcased C2C's efforts. In 2022-23, C2C was highlighted in various publications:

- » "Industry Insider One-on-One: Cradle-to-Career Data Director on Work Thus Far," *Industry Insider*, Theo Douglas, September 15, 2022
- » Honorable Mention in Results for America's 2022 State Standard of Excellence
- » "What Now? A Vision to Transform State Data Systems to Inform People's Pathways through Education and the Workforce," The Data Quality Campaign, May 2, 2023
- » "People-Powered Data: Designing a Data System for and with All Californians," California Competes, August 21, 2023

CALIFORNIA COMPETES
HIGHER EDUCATION FOR A STRONG ECONOMY

AUGUST 2023

People-Powered Data:
Designing a Data System for and with All Californians

KEY TAKEAWAYS

- To ensure the California Cradle-to-Career Data System (C2C) can fulfill its promise, it must be used. User-centered design principles can support this objective and promote the system's success.
- Tailoring data tools and formats to meet the diverse needs of users based on their backgrounds, interests, and comfort levels can foster wider accessibility and facilitate deeper engagement with the data.
- By continuously gathering feedback from users and stakeholders, C2C can cultivate a culture of ongoing improvement, which is essential to achieving its goal of providing accessible and useful data tools to support Californians throughout their education and career journeys.

Section 6: Practical Tools

What Problem are Practical Tools Addressing?

The [authorizing legislation](#) (Assembly Bill 132, Postsecondary Education Trailer Bill, 2021) refers to Practical Tools as Operational Tools; the Office also refers to these as "Practical Tools for students" to communicate clearly with the public.

Students face confusing barriers in applying for college and financial aid, needing to navigate multiple platforms to complete applications and share information from their transcripts. These barriers can exacerbate existing disparities.

To address these inequities, Cradle-to-Career is coordinating with partners to reduce barriers to applying to college and financial aid and expand the number of students who benefit from these tools by linking near real-time information across institutions and communicating about these options to students.

As part of establishing C2C, the state invested in making the practical college and career planning tools at CaliforniaColleges.edu available at no cost to LEAs, with a plan to scale the service statewide to all 6th-12th grade students. Additionally, Education Code [section 10867](#) identified eTranscript California as another service to scale and expand in scope.

CaliforniaColleges.edu

Per statute, California Education Code [section 10860](#), the California Cradle-to-Career Data System (C2C) shall provide expanded access to tools and services that support the navigation of the education-to-employment pipeline. The scaling of [CaliforniaColleges.edu](#), which includes high school transcript services, will help to streamline college applications for K-12 students.

As the state's one-stop shop for applying to public colleges and universities and for originating financial aid, in FY 2022-23 CaliforniaColleges.edu provided 1.5 million accounts to 6th-12th grade students in California. Through a partnership with CDE, CaliforniaColleges.edu will provide universal basic accounts for all 6th-12th grade California students in Fall 2024, while expanding the number of school districts that provide transcript-informed accounts to their students.

eTranscript California

Statute identified eTranscript CA as a tool that could be leveraged to streamline the exchange of transcripts between postsecondary institutions, share information on dual enrollment between K-12 and postsecondary, and expand the types of records that can be shared to include third party documentation for skills-based hiring.

In 2023-24, C2C will convene a task force to develop a roadmap for making eTranscript CA a seamless platform for transferring transcripts across public and independent post-secondary institutions. The planning process will explore issues such as interoperability standards for data required in application and transfer processes; infrastructure and new features to strengthen security, integration and the expansion of functionality; and technical assistance required to build awareness and support

implementation. The Office will also facilitate coordination with CaliforniaColleges.edu's provision of high school transcripts to reduce barriers for dual enrollment students.

Student Experience Audit

Education Code section 10867 mandates the Office to conduct a student experience audit annually, which will surface the barriers and issues that students face as C2C works to build the data system.

Conducted in partnership with WestEd in 2022, C2C's first student experience audit focused on learning about the experiences of high school students from frontline educators and identified pain points and challenges as well as promising practices for improvement that can be addressed through the use of existing practical tools like CaliforniaColleges.edu.

In March 2023, C2C reengaged WestEd to conduct stakeholder interviews with the higher education segments and students to understand their current system for sending and receiving transcripts, features which should be prioritized in an electronic transcript exchange, and issues associated with implementing eTranscript. The interviews explored and gathered feedback on proposed enhancements for three eTranscript CA uses cases that were identified during the planning process for C2C: 1) Streamlining the transfer of information 2) Expanding the types of records that can be shared to support skills-based hiring 3) Identifying individuals who are eligible for public benefits.

Section 7: Data Programs

What Problem is Data Programs Addressing?

Data is siloed in different state-level entities, making it hard for decisionmakers to answer important questions.

Because of this, Cradle-to-Career will build a linked analytical dataset that connects existing state-level data on education and job outcomes that will empower decision-makers to answer important questions.

The Office is fulfilling its related legislative requirements: For this fiscal year, the Office has been working toward creating and improving data sets and conducting data quality audits. The Office has been reviewing and approving plans for professional development, operational tools, topics for summary reports, and significant changes to analytical tools. Additionally, the Office has been providing recommendations on data points, tools, and professional development, and contributing to the P20W data points. By fiscal year 2023-24, the Office will create, revise, and support the data process requests and by fiscal year 2025-26, the Office will create new tools. The Office also met regularly with data providers to collaboratively develop plans and specifications for importing data into the P20W data system. These meetings provide the foundation for cross agency partnerships and knowledge sharing about each agency's data.

Data Dashboards

Once C2C receives data from data providers this fall (P20W dataset as described in the Participation Agreement, including the data points added during the May 2023 Governing Board meeting), the Office will move to a phased approach for developing the dashboard and reporting data. The first phase includes building two related dashboards:

> 1. The student pathways diagram: Clarify the educational pathways from early childhood to postsecondary education and employment, clarify differential outcomes for various student populations, and foster greater awareness about the interconnection between education, employment, and living wages
> 2. A first phase of the teacher training and retention dashboard, which will focus on the teacher training pipeline, based on the new data points added to the P20W dataset in May 2023 from the Commission on Teacher Credentialing and the California State University.

These two dashboards are complementary. The student pathways diagram will provide high-level insights into the paths students take from high school to postsecondary or skills training, to employment. The teacher dashboard will focus on a subset of those individuals–those who are training to become teachers and shed light on their pathways. More details are available in the August 2023 update on the teacher dashboard.

C2C aims to develop future phases of the dashboard which would display insights learned from integrating additional data on teachers in K-12 schools.

The dashboards will be developed based on Cradle-to-Career's theory of equity: the C2C data system will advance equity by making data accessible and actionable for all

Californians, particularly marginalized communities. It will facilitate data literacy across all user types by surfacing information and raising questions to address and tell a richer story about issues that impact specific communities. The creation of the dashboard will prioritize asset-based and student-centered approaches to displaying and interpreting information. It will provide resources in plain language that foster data literacy, be available in multiple languages, and integrate resources into the design of the data tools wherever possible.

New Data Points

To facilitate the creation of the Teacher Training and Retention Dashboard, the Office convened two task forces in Summer 2022 to identify ways to consistently calculate data points related to teacher preparation programs, teacher credentialing, teacher placement, and teacher retention.

The dashboard would require data points that were not yet included in the original list with C2C's data partners. At its February 2023 meeting, the C2C Governing Board approved updates to its Governance Manual, which included a new process for adding additional data points to the C2C P20W analytical data set.

The Governing Board approved additional data points during the May 2023 Governing Board meeting, adding 20 new data points that will enable the build for C2C's dashboards, query builder, and research request system. For more information, see Data Elements by Provider.

Exhibit 4: Data Elements by Provider Snapshot

Section 8: Data Infrastructure

What Problem is Data Infrastructure Addressing?

The authorizing legislation included a requirement that technology procurement must align with the State Administrative Manual, including completing the California Department of Technology (CDT) Project Approval Lifecycles (PAL). PAL is a four-stage process for ensuring interest holders have been consulted, appropriate analyses of use cases and solutions have been completed, sufficient staffing is in place to manage the project, and activities align with plans once underway.

In its second year, the Office focused on building the technical infrastructure and collecting initial data sets from data providers. The Office also completed Stages 3 and 4 of CDT's PAL process for a system integrator, which assists C2C with the implementation, planning, coordination, and testing of the system and will be responsible for integrating and configuring data and securing data originating from C2C's data providers.

In addition to these endeavors, there are also mandatory legislative requirements that need to be upheld. The Office worked to ensure data quality through the development of data definitions and file specifications in collaboration with each of C2C's data partners. By fall 2023, data providers will transmit the first submission of annual data that C2C links, masters, and keeps secure. By fiscal year 2023-24, the Office will support data requests and by fiscal year 2025-26, the Office will create user-facing tools to explore policy problems and solutions. The Office will develop a data request process for the Secure Data Enclave for researchers to conduct studies by Winter 2024. For more information about ongoing projects, please reference Appendix A in the September 2023 Report to the Legislature.

Section 9: Conclusion

The Cradle-to-Career Data System has an ambitious timeline to build and fully implement the most inclusive longitudinal data system in the nation, with the promise of centering community engagement and user-centered design.

In FY 2022-23, C2C focused on advancing the strategic vision, mission, and goals of the Office of Cradle-to-Career Data. It worked to establish and operate a new state entity that uses secure, effective, and efficient processes and procedures to earn and keep the trust of data providers and the public. As the development of the data system moves into its third year, the Office will focus on the creation, implementation, and launch of its first data dashboards using the analytical data set.

The build of the data system will also focus on data quality and security and the continued scaling of practical tools, including reimagining a streamlined transcript platform. With the strong ongoing support from its Governing Boards, the public, data providers, and policymakers, C2C is well positioned to help move this expanded scope forward.

Appendix A.

Status of Progress of Legislative Requirements

Table A1: Governing Board

Requirement	Code Section	Status	Description
Appoint an executive officer	Education Code Section 10866 (a)	Completed in 2022.	
Adopt a timeline	Education Code Section 10857 (b)(1)	Approved an updated five-year timeline	See Section 4: Operations
Revise vision, mission, strategic objectives	Education Code Section 10857 (b)(2)	Office engaged contract for strategic planning support. Strategic plan completed and approved by the Governing Board in 2023.	See Section 4: Operations
Adopt data dictionary and standards	Education Code Section 10857 (b)(3)	Will be addressed in 2023-24.	
Expand data points	Education Code Section 10857 (b)(4)	Some of the additional data points needed for the Teacher Training and Retention Dashboard approved by the Governing Board.	See Section 7: Data Programs
Create new tools	Education Code Section 10857 (b)(5)	Will be addressed in 2025-26	
Create and revise data request process	Education Code Section 10857 (b)(6)	Will be addressed in 2023-24	
Create privacy policies	Education Code Section 10857 (c)	Completed Project Approval Lifecycle (PAL) process for IT Projects.\n\nLaunched Security Policies Task Force with data privacy and security experts from data partners.	See Section 8: Data Infrastructure
Adopt annual strategic plan, approve budgets, ensure user-centered design approach	Education Code Section 10857 (d)(1-3)	Annual plan and budget adopted for 2023-24	See Section 4: Operations

Requirement	Code Section	Status	Description
Review and approve plans for professional development, operational tools, topics for summary reports, significant changes to analytical tools	Education Code Section 10862 (d) (4)	Will be addressed beginning in 2023-24	
Conduct data quality audits, provide for evaluations, promulgate regulations, other activities	Education Code Section 10862 (d) (5-8)	Data quality audits will commence after C2C receives data from its data providers	
Provide reports to the Legislature and Governor's Office	Education Code Section 10866 (d) (9)	Legislative reports completed for 2022-23	See this report and companion report from the California College Guidance Initiative (CCGI).

Table A2: Office of Cradle-to-Career Data

Requirement	Code Section	Status	Description
Staff governing board, advisory boards, and meetings	Education Code Section 10867 (b) (1) (A)	Convened meetings of the Governing Board, Advisory Boards, and Ad Hoc Committees	See Section 3: Governance
Support governance manual development	Education Code Section 10867 (b) (1) (B)	Revised Governance Manual in 2023.	See Section 3: Governance
Onboard new data providers	Education Code Section 10867 (b) (1) (C)	Met regularly with data providers	See Section 7: Data Programs
Support development of policies	Education Code Section 10867 (b) (1) (D)	Established office procedures within the Government Operations Agency	Section 4: Operations
Provide recommendations on data points, tools, professional development	Education Code Section 10867 (b) (1) (E)	Additional data points for Teacher Training and Retention Dashboard recommended to Governing Board	See Section 7: Data Programs
Address issues of compliance from data providers	Education Code Section 10867 (b) (1) (F)		

Requirement	Code Section	Status	Description
Develop annual work plans and budgets	Education Code Section 10867 (b) (2) (A)	Completed 2023-24 workplan and budget	See Section 4: Operations
Oversee personnel and compensation	Education Code Section 10867 (b) (2) (B)	Filled initially authorized positions (16)	See Section 4: Operations
Regular reporting and external evaluations	Education Code Section 10867 (b) (2) (C)	Will be addressed in beginning in 2023-24	
Enter into contracts	Education Code Section 10867 (b) (2) (D)	Completed 65 contracts and agreements.	See Section 4: Operations
Procure and maintain infrastructure for analytical data set	Education Code Section 10867 (b) (3) (A)	Executed contracts for System Integrator and four strike teams tailored to the technology stack.	See Section 8: Data Infrastructure
Create data sets	Education Code Section 10867 (b) (3) (B)	Built data infrastructure and defined specific file upload specifications. Expect first data submissions from data providers in Fall 2023.	
Ensure availability and privacy of data	Education Code Section 10867 (b) (3) (C)	Established Security Policies Task Force.	
Implement analytical tools including user-centered design	Education Code Section 10867 (b) (4) (A-D)	Will be addressed in 2023-24	
Provide neutral summaries	Education Code Section 10867 (b) (4) (E)	Will be addressed in 2023-24	
Monitor effective practices for longitudinal data systems	Education Code Section 10867 (b) (4) (F)	Participated in P20W community of innovation, engaging in state and national conversations coordinated by organizations and entities in California and around the nation focused on state longitudinal data systems	See Section 5: Engagement

Requirement	Code Section	Status	Description
Scale and operate operational tools, including annual student experience audit, GPAs for financial aid, California College Guidance Initiative (CCGI), eTranscript California	Education Code Section 10867 (b) (5)	Expanded access to CaliforniaColleges.edu tools and continued tobuild technical Implementation improvements with partners. First Student Experience Audit completed in 2022. Assessed possibilities for postsecondary electronic transcripts and eTranscript infrastructure.	See Section 6: Practical Tools
Provide training and technical assistance	Education Code Section 10867 (b) (6)	Will be addressed beginning in 2023-24	
Support data requests	Education Code Section 10867 (b) (7)	Will be addressed beginning in 2023-24	
Improve data quality	Education Code Section 10867 (b) (8)	Finalized detailed file upload specifications for all initial data submissions by partners	See Section 8: Data Governance
Ensure compliance with all laws	Education Code Section 10867 (b) (9)		See Section 4: Operations
Increase government efficiency and identifying opportunities for clearer or more consistent messaging to students and families related to education pathways and transitions	Education Code Section 10867 (b) (10)	Coordinated joint communications with K-12 and public higher education segments (CDE, CSU, UC, CCC, CSAC) to promote CaliforniaColleges.edu	See Section 5: Engagement

Table A3: Data Providers

Requirement	Code Section	Status	Description
Contribute P20W data points	Education Code Section 10871 (a)	Expected in 2023-24	
Ensure data quality	Education Code Section 10871 (b)	Expected in 2023-24	

Appendix B.

Accessible Presentation of Exhibit 2: California Cradle-to-Career Data System Updated 5-Year Timline

UPDATED 5-YEAR TIMELINE

	Year 1: FY 2021-22	Year 2: FY 2022-23	Year 3: FY 2023-24	Year 4: FY 2024-25	Year 5: FY 2025-26
Operations	» Appointed Executive Director » Defined leadership positions and initial staff recruitment	» Recruited leadership team » Filled initially authorized positions (16) » Received additional positions and funding effective with the 2023 State Budget » Established office procedures within GovOps	» House the C2C office in an inclusive space designed to foster community engagement » Fill newly authorized positions (total team size: 26) » Define fiscal and human resources needed to achieve C2C's statutory charge » Launch annual employee engagement survey	» Continued refinement of regular training on cyber security and data privacy » Review fiscal and human resources needed to achieve C2C's statutory charge » Continued refinement of DEIA training and supports, with feedback from annual employee engagement survey	» Office established as a fully functioning new state entity
Analytical Data	» Signed Participation Agreement for data sharing » Defined procurement and implementation plans for technology products » Issued RFP for data warehouse » Completed Stages 1 and 2 of CDT's Project Approval Lifecycle for IT projects » Review of data element definitions identified during planning process	» Finalized detailed file upload specifications for all initial data submissions by partners » Completed Stages 3 and 4 of CDT's "Project Approval Lifecycle" for IT projects, including awarding vendor contracts » Launched Security Policies Task Force with data privacy and security experts from data partners » Executed contracts for the next phase System Integrator and 4 Strike Teams tailored to the technology stack » Initial build and configuration of technology stack	» Data providers submit reliable and timely data annually that C2C links and keeps secure » Design an initial dashboard on a priority topic » Expand teacher credentialing analytical data set » Expand analytical data set to include independent colleges	» Data providers submit reliable and timely data annually that C2C links and keeps secure » Develop a query builder that enables disaggregation » Develop the research data request process for the secure data enclave » Expand analytical data set to include private colleges » Expand analytical data set to include early learning and care information	» Data providers submit reliable and timely data annually that C2C links and keeps secure » Review technology infrastructure to ensure it continues to meet expectations » Expand analytical data set to include additional social services, health, and workforce information
			» Continue complying with all state and federal requirements and assessments for data security and privacy, with input from the Security Policies Task Force		

	Year 1: 2021-22	Year 2: FY 2022-23	Year 3: FY 2023-24	Year 4: FY 2024-25	Year 5: FY 2025-26
Practical Tools	» CCGI expanded access to CaliforniaColleges.edu planning tools and high school electronic transcript infrastructure	» CCGI expanded access to CaliforniaColleges.edu tools and continued to build technical implementation improvements with partners. » Launched annual Student Experience Audit » Assessed possibilities for postsecondary electronic transcripts and eTranscript infrastructure	» Promote CaliforniaColleges.edu as a one-stop shop for launching applications for college and financial aid » Annual Student Experience Audit » Create a roadmap for how eTranscript can become a seamless platform for transferring transcripts across post-secondary institutions » Assess possibilities for integrating competency-based education and supporting skills-based hiring	» Launch universal basic accounts at CaliforniaColleges.edu for all public high school students » Annual Student Experience Audit » Assess possibilities for integrated social services applications	» Champion the goal of reaching 95% of California's public high school students with CaliforniaColleges.edu accounts powered by real-time transcript data by Summer 2026 » Annual Student Experience Audit
Engagement	» Launched "Community Conversations" » Continued holding meetings open to public input	» Defined brand identity and communications strategy » Launched user-centered design work on data dashboards » Continued community engagement and feedback	» Provide public trainings on using data tools » Ensure information is trusted and useful by prioritizing transparency in communications and processes	» Deepen regional and community-based engagement with C2C's public-facing tools and resources » Establish baseline metrics for public-facing products for reporting	» Continuous improvement based on input and engagement » Share metrics on quality of engagement: C2C promotes equitable access to its engagement activities by region and key communities » Share metrics on actionable information: C2C data informs decisions, policy, and research

» Engage with Governor's Office and the California Legislature on C2C's Legislative priorities   >>>>>

» Continued prioritization of user-centered design for website, and all public-facing resources including dashboards, query builder, and researcher data request processes

	Year 1: 2021-22	Year 2: FY 2022-23	Year 3: FY 2023-24	Year 4: FY 2024-25	Year 5: FY 2025-26
Boards	» Seated Governing Board » Elected Board Chair and Chair Elect » Developed Governance Manual to clarify processes for the Board	» Refined ad hoc committee and governance processes » Selected and seated Community Engagement Advisory Board and Data and Tools Advisory Board	» Launch annual governance survey for Governing Board members	» Refine onboarding, offboarding, and continuous strengthening of governance culture	

» Share progress summaries at every Governing Board meeting   > > > > >

			Year 3	Year 4	
			» Launch the annual recommendations and feasibility study process for Advisory Boards	» Continued appointments to Advisory Boards » Annual recommendations and feasibility study process for Advisory Boards	

Appendix C.

Accessible Presentation of Exhibit 3: C2C Staff Chart

- Governing Board
  - **Amy Tong**, Secretary
  - Community Engagement Advisory Board
  - Data & Tools Advisory Board
  - **Mary Ann Bates**, Executive Director (Exempt)
    - **Britney Ortiz**, Executive Assistant, AGPA
    - **Lesley Taylor,** Director of Operations, CEA B
      - **Diana Yang**, Admin Chief, SSMI*
      - **Sebastien Chaubard**, Contract and Procurement Analyst, AGPA
      - **Kevin Filipich**, Budget Analyst, SSA/AGPA
      - **Brandi Arias**, Office Technician
      - Vacant, Office Technician, Office Technician (2023–2024 Requested)
      - Contractor, EEO Officer, CDTFA
      - Contractor, HR Services
      - Contractor, IT Services
    - **Shannon Serrato**, Director of Engagement, CEA B
      - **Marykate Cruz Jones**, Chief of Strategic Initiatives and Partnerships, SSM III
        - Contractor, Board Governance
        - Vacant, Board Coordinator, SSMI (2023–2024 Requested)
      - **Angelique Palomar**, Deputy Director, Communications, CEA A*
      - Vacant, Deputy Director, Legislative Affairs, CEA A
      - Contractor, Website Services
    - **Ryan Estrellado**, Director of Data Programs, CEA C
      - **Judy Chan**, Deputy Director, Digital Services, CEA B
      - **David Lang**, Research Data Manager
      - Vacant, Research Data Specialist, Research Data Specialist III
      - Vacant, Research Data Specialist, Research Data Specialist II (2022–2023 Approved)
      - Contractor, eTranscript California
      - Contractor, California College Guidance Initiative (CCGI)
    - **Dan Lamoree**, Director of Data Infrastructure, CEA C
      - Munny Chitneni, Principal Data Architect, IT Manager II
      - Vacant, Data Engineer, IT Specialist II (2022–2023 Approved)
      - Vacant, Database Administrator, IT Specialist II
      - Contractor, System Integrator
      - Contractor, Project Manager
      - Contractor, IV & V
    - **Julia Blair**, General Counsel and Chief Privacy Officer, Attorney IV
    - **Mike Arakji**, Cyber Security and Privacy Contractor