



FCMAT

FISCAL CRISIS & MANAGEMENT
ASSISTANCE TEAM

CSIS California School Information Services

California Community Colleges Chancellor's Office

Data Management Practices Review

June 27, 2019



Michael H. Fine
Chief Executive Officer





CSIS California School Information Services

June 27, 2019

Christian Osmeña, Vice Chancellor
California Community Colleges Chancellor's Office
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Sacramento, CA 95811

Vice Chancellor Osmeña:

In February 2019, the California Community Colleges Chancellor's Office and the Fiscal Crisis and Management Assistance Team (FCMAT) entered into an agreement to conduct a management assistance study on data management practices across the community college system and provide recommendations and suggested protocols to improve data quality and data management practices for data used in the Student Centered Funding Formula, enacted in 2018. Specifically, the agreement stated that FCMAT would perform the following:

1. Analyze data used in the Student Centered Funding Formula through 2017-18 and summarize trends in the data, noting any anomalies.
2. Conduct a review of data management responsibilities and practices related to the collection, review, reporting and transformation of data elements used in the Student Centered Funding Formula at 10-15 community colleges selected by the team as the study sample. The methodology for identifying the sample will include consideration of the college size, region, and whether a college is in a single-college district or a multicollege district. The review at each college/district in the selected sample will include both examination of documents and interviews with staff regarding data policies, procedures, responsibilities, and flow for the data elements used in the Student Centered Funding Formula.
3. Provide recommendations on best practices for data management designed to improve data quality, data collection practices, data flow and/or reporting at individual community colleges and between colleges, districts and the Chancellor's Office.
4. In consultation with the Chancellor's Office, provide sample protocols and audit procedures to improve data management practices designed to address issues identified in the review.

FCMAT

Michael H. Fine, Chief Executive Officer

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This final report contains the study team's findings and recommendations in the above areas of review. FCMAT appreciates the opportunity to serve the California Community Colleges Chancellor's Office, and extends thanks to all the staff for their assistance during fieldwork.

Sincerely,

A handwritten signature in black ink that reads "Michael H. Fine". The signature is written in a cursive, flowing style.

Michael H. Fine
Chief Executive Officer

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About FCMAT

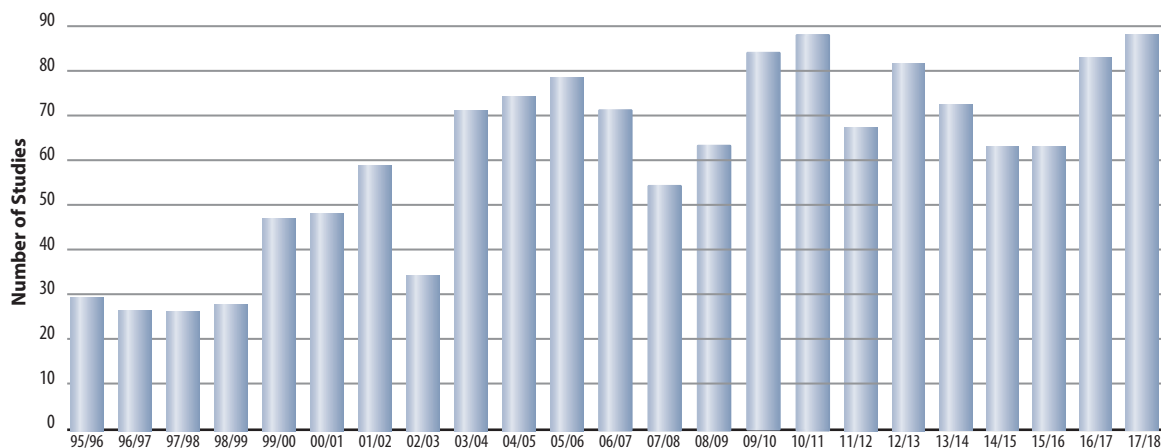
FCMAT's primary mission is to assist California's local K-14 educational agencies to identify, prevent, and resolve financial, human resources and data management challenges. FCMAT provides fiscal and data management assistance, professional development training, product development and other related school business and data services. FCMAT's fiscal and management assistance services are used not just to help avert fiscal crisis, but to promote sound financial practices, support the training and development of chief business officials and help to create efficient organizational operations. FCMAT's data management services are used to help local educational agencies (LEAs) meet state reporting responsibilities, improve data quality, and inform instructional program decisions.

FCMAT may be requested to provide fiscal crisis or management assistance by a school district, charter school, community college, county office of education, the state Superintendent of Public Instruction, or the Legislature.

When a request or assignment is received, FCMAT assembles a study team that works closely with the LEA to define the scope of work, conduct on-site fieldwork and provide a written report with findings and recommendations to help resolve issues, overcome challenges and plan for the future.

FCMAT has continued to make adjustments in the types of support provided based on the changing dynamics of K-14 LEAs and the implementation of major educational reforms.

Studies by Fiscal Year



FCMAT also develops and provides numerous publications, software tools, workshops and professional development opportunities to help LEAs operate more effectively and fulfill their fiscal oversight and data management responsibilities. The California School Information Services (CSIS) division of FCMAT assists the California Department of Education with the implementation of the California Longitudinal Pupil Achievement Data System (CALPADS). CSIS also hosts and maintains the Ed-Data website (www.ed-data.org) and provides technical expertise to the Ed-Data partnership: the California Department of Education, EdSource and FCMAT.

FCMAT was created by Assembly Bill (AB) 1200 in 1992 to assist LEAs to meet and sustain their financial obligations. AB 107 in 1997 charged FCMAT with responsibility for CSIS and its state-wide data management work. AB 1115 in 1999 codified CSIS' mission.

AB 1200 is also a statewide plan for county offices of education and school districts to work together locally to improve fiscal procedures and accountability standards. AB 2756 (2004) provides specific responsibilities to FCMAT with regard to districts that have received emergency state loans.

In January 2006, Senate Bill 430 (charter schools) and AB 1366 (community colleges) became law and expanded FCMAT's services to those types of LEAs.

On September 17, 2018 AB 1840 was signed into law. This legislation changed the how fiscally insolvent districts are administered once an emergency appropriation has been made, shifting the former state-centric system to be more consistent with the principles of local control, and providing new responsibilities to FCMAT associated with the process.

Since 1992, FCMAT has been engaged to perform more than 1,000 reviews for LEAs, including school districts, county offices of education, charter schools and community colleges. The Kern County Superintendent of Schools is the administrative agent for FCMAT. The team is led by Michael H. Fine, Chief Executive Officer, with funding derived through appropriations in the state budget and a modest fee schedule for charges to requesting agencies.

Introduction

Background

In February 2019, the California Community Colleges Chancellor's Office (CCCCO) requested that FCMAT conduct a management assistance study on data management practices across the California Community Colleges system related to the Student Centered Funding Formula (SCFF) and provide recommendations and suggested protocols to improve data quality and data management practices for data used in the SCFF.

The California Community Colleges system serves more than 2.1 million students in 115 colleges and 72 districts. The system is guided by the Vision for Success, adopted by the Board of Governors in 2017. The Vision calls for eliminating achievement gaps, increasing by 35% the number of students transferring to a University of California or California State University campus and increasing by at least 20% annually the number of students who earn a degree, credential, or certificate preparing them for in-demand jobs.

The SCFF, written into California state law on June 27, 2018, significantly changes the way California community college districts are funded. The SCFF focuses on narrowing the access and achievement gap for disadvantaged students and improving community college student outcomes as a whole, as outlined in the state's initiative, Vision for Success.

The SCFF divides the state's community college budget into three allocations. The base allocation, which in 2018-19 comprises 70% of the state's community college budget, targets access. It is distributed based on full-time equivalent student (FTES) enrollments. The supplemental allocation, which comprises 20%, targets equity and is distributed based on head counts of Pell Grant recipients, AB 540 students, and California College Promise Grant recipients. The student success allocation, which comprises 10% of the budget, targets successful outcomes, distributed based on a variety of weighted metrics that represent various types of student success. Counts included in the student success allocation are:

- Associate degrees for transfer (ADTs)
- Associate degrees (excluding ADTs)
- Baccalaureate degrees granted
- Credit certificates (16 units or more) granted
- Completion of transfer-level mathematics and English courses within the first academic year of enrollment
- Successful transfer to a four-year university
- Completion of nine or more career technical education (CTE) units
- Attainment of regional living wage

Under the new funding formula, noncredit enrollment and some other types of enrollment are funded at current rates.

Although student outcome and financial aid data had been reported to the CCCCCO prior to the SCFF, the Chancellor's Office recognized that the SCFF dramatically changed how some data are used. Some data became very high stakes with the new funding formula when previously that

data was reported but not used for funding or any other high-stakes decisions. The Chancellor's Office requested FCMAT conduct this management assistance study to collect a baseline of current data management practices and to make recommendations that could be used to improve data practices statewide.

Study and Report Guidelines

FCMAT reviewed the data management responsibilities and practices related to the collection, review, reporting and use of data elements used in the SCFF in 11 community colleges within 10 community college districts. The review at each college/district included both examination of documents and interviews with staff regarding data policies, procedures, responsibilities, and flow for the data elements used in the SCFF. FCMAT's review of data management practices was not an audit; this study was not intended to validate specific counts. The purpose was to examine the processes in place to gather, report and use the data that feeds into the SCFF and to determine if improvements in those processes could be implemented to improve the quality of the data.

The SCFF primarily relies on data submitted by the districts through the Chancellor's Office Management Information System to calculate the base, supplemental and student success allocations; this system is commonly called MIS by districts and so that acronym is used in this report. Additional data is sourced from the Chancellor's Office Curriculum Inventory (COCI), Employment Development Department (EDD), National Center for Education Statistics (NCES), and CTE outcomes surveys and matched to data reported by the districts in the MIS submissions. Interviews conducted with district and college staff by the FCMAT team focused on these data components and how they were collected, maintained, reported and verified by the districts.

FCMAT's reports focus on systems and processes that may need improvement. Those that may be functioning well are generally not commented on in FCMAT's reports. In writing its reports, FCMAT uses the Associated Press Stylebook, a comprehensive guide to usage and accepted style that emphasizes conciseness and clarity. In addition, this guide emphasizes plain language, discourages the use of jargon and capitalizes relatively few terms.

Sample Selection

The CCCCCO requested that FCMAT select a sample of 10-15 colleges to be visited during the study. The Chancellor's Office and FCMAT agreed the sample would include:

- Multi-college districts and single college districts
- Large, medium and small districts/colleges
- Geographic representation from southern, central and northern California

FCMAT and CCCCCO further agreed that the sample would primarily include only one college from each district but that two colleges from at least one district would be included in the sample.

FCMAT selected the sample based upon these parameters established with the Chancellor's Office. After the sample was selected, FCMAT examined changes in data used in the funding formula reported between 2016-17 and 2017-18 to ensure the sample included some districts with signif-

icant changes and others with fairly consistent data so that the sample was representative of the state. FCMAT also verified the sample included a variety of the student information systems in use by community college districts. Student information systems in the sample included:

- Colleague (Ellucian)
- Banner (Ellucian)
- Peoplesoft (Oracle)
- Custom (a locally developed system)

Districts and colleges initially selected for the study were:

District	College
Contra Costa CCD	Contra Costa College, Diablo Valley College
Grossmont-Cuyamaca CCD	Grossmont College
MiraCosta CCD	MiraCosta College
Monterey Peninsula CCD	Monterey Peninsula College
Rio Hondo CCD	Rio Hondo College
San Bernardino CCD	San Bernardino Valley College
San Mateo County CCD	Skyline College
Santa Monica CCD	Santa Monica College
Shasta-Tehama-Trinity Joint CCD	Shasta College
West Hills CCD	West Hills College-Coalinga
Yuba CCD	Yuba College

FCMAT shared this list with the CCCCO and obtained approval to move forward with this sample. The CCCCO then sent a communication to the districts selected and asked for the name and information for the district contact to coordinate with FCMAT on the study visit. Monterey Peninsula CCD did not respond to multiple attempts to coordinate their participation in the study. Cuesta College in the San Luis Obispo CCD was selected to replace Monterey Peninsula CCD so that the central coast was represented in the sample. San Mateo CCD declined to participate. Since the Contra Costa CCD provided representation from the San Francisco Bay Area, FCMAT and the CCCCO agreed that another district would not be selected to replace San Mateo CCD. As a result, the final list of districts and colleges in the sample was:

District	College
Contra Costa CCD	Contra Costa College, Diablo Valley College
Grossmont-Cuyamaca CCD	Grossmont College
MiraCosta CCD	MiraCosta College
Rio Hondo CCD	Rio Hondo College
San Bernardino CCD	San Bernardino Valley College
San Luis Obispo CCD	Cuesta College
Santa Monica CCD	Santa Monica College
Shasta-Tehama-Trinity Joint CCD	Shasta College
West Hills CCD	West Hills College-Coalinga
Yuba CCD	Yuba College

Process for the Study

In February, March and April of 2019, the FCMAT team visited each district in the sample and typically conducted interviews with individuals from the district/college Admissions & Records, Student Services, Finance/Financial Aid, Institutional Research, and Information Systems/Information Technology/Management Information Systems departments, although not every visit included individuals from all of these areas due to scheduling conflicts. During the interviews, the FCMAT team and representatives from the selected districts and colleges discussed data management responsibilities, practices, and procedures and the flow of data elements reported to the Chancellor's Office and used in the SCFF. FCMAT also gathered available documentation/examples of current practices and reports used in monitoring data and/or validating counts submitted to the Chancellor's Office. This report is the result of those activities and is divided into the following sections:

- About FCMAT
- Introduction
- Executive Summary
- Base Allocation
- Supplemental Allocation
- Student Success Allocation
- Documentation and Sustainability
- CCCCCO Communications
- Appendices

Although practices at the various colleges and districts differed with regard to the review, reporting and use of data elements, all colleges have two common starting points with the collection of data. Students applying to California's community colleges use the online CCCApply application and students applying for federal financial aid use the online Free Application for Federal Student Aid (FAFSA) application. Data from each of these systems are subsequently loaded into the various local student information systems (SIS). Several districts also reported using supplemental and/or interim information systems, both official and unofficial, for preliminary reviews, cleansing, and data quality checks prior to loading into the SIS.

Data from the local student information systems are used to fulfill mandatory reporting to the MIS and Apportionment Attendance Report (CCFS-320) systems. It is the data from these systems that are used in calculating the SCFF.

Study Team

The study team was composed of the following members:

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FCMAT Deputy Executive Officer

Lisa Hayes
FCMAT/CSIS Implementation Specialist

Nancy Sullivan
FCMAT Consultant

Laura Haywood
FCMAT Technical Writer

Executive Summary

The California Community Colleges Chancellor's Office commissioned this management assistance study to gather information about and recommendations for improvement in data management practices across the California Community Colleges system. The Student Centered Funding Formula (SCFF), which began in 2018-19, dramatically changed how funding is determined for community colleges and resulted in some data becoming very high stakes with the new funding formula. Although that data had been previously reported, it had less frequently been used for funding or other high-stakes decisions prior to the funding change. While this report is intended to inform continuous improvement efforts, it was not an audit – this study was not to validate specific counts but rather to examine the processes in place to gather, report and use the data that feeds into the SCFF and to determine if improvements in those processes could be implemented to improve the quality of the data.

The California Community Colleges system serves more than 2.1 million students in 115 colleges and 73 districts. The Community Colleges system is guided by the Vision for Success, adopted by the Board of Governors in 2017. The Vision calls for eliminating achievement gaps, increasing by 35% the number of students transferring to a University of California or California State University campus and increasing by at least 20% annually the number of students who earn a degree, credential, or certificate preparing them for in-demand jobs.

In all districts visited, district and college staff were working to implement changes to improve student outcomes. Although district and college staff understood the importance of submitting accurate data to the Chancellor's Office, many indicated that data management activities were often a lower priority than activities focused on services to promote student success.

Districts and colleges reported that both the focus on improved student outcomes and the SCFF were resulting in improved data quality, especially for the data elements used to monitor student success and/or calculate the SCFF. The SCFF base allocation is calculated using attendance data reported to the Chancellor's Office through the CCFS-320 process three times a year. Districts have well-established practices around the collection, reporting and review of attendance data. The supplemental allocation of the funding formula is calculated based on the number of Pell Grants, California Promise Grants, and AB 540 fee waiver recipients. The funding formula is based on disbursements, not eligibility. Data used to calculate the supplemental allocation comes from data submitted to the Chancellor's Office Management Information System (MIS) in two different annual submissions. Data used for the student success allocation comes from student and course data submitted to MIS at the end of the fall, winter/spring and summer terms.

Although some districts have formal structures and defined roles for data governance as well as documentation of local procedures for MIS submissions, many do not. Data governance practices are the practices an organization uses to manage data and information. Best practices for data governance include formalizing local data governance practices in a set of policies and procedures that encompasses the full life cycle of data, including collection; use, including reporting for local, state and federal purposes, and disposal. This includes defining roles and responsibilities for data management, including decision-making authority, as well as policies, procedures, and standards regarding data collection, quality, security and privacy protection, access, and monitoring.

In districts without formal data governance structures and/or documentation, efforts rely upon hard-working staff whose individual commitment has resulted in improved MIS submissions over time. Many districts in the sample had staff with years of experience with the MIS submissions; those staff indicated their expertise with the submissions had grown over time. They

frequently reported making changes in their processes to address errors and make submissions more efficient. They also reported changes in process that resulted in improved services to students, such as better communication processes to help students understand their status with respect to financial aid and/or their progress on their education plan. As some of these staff near retirement, districts are at risk of losing this expertise if they do not document current local data management processes as well as tips for preventing or addressing errors. Many interviewed indicated that, due to resource constraints, local documentation either had not been developed or was out of date. They also noted that there was little, if any, cross training. Districts should develop and maintain local documentation that describes roles, responsibilities, and tasks for each step of the MIS process and how leadership is kept informed about MIS submissions. Documentation should include details about how reports will be reviewed for accuracy and what happens if the counts are not accurate so there is a common understanding across the organization about the level of review for data accuracy, especially for data elements that impact funding. Ideally, documentation would also include common errors and how to prevent or address them. The appendices in this report include resources to assist districts with their local practices and documentation.

Districts identified a need for more training and resources on the MIS submission process, especially for new staff. They indicated all staff would benefit from training that addressed how data from MIS submissions are used in student success metrics and SCFF calculations. The current CCCCCO MIS trainings focus on changes to be implemented in the next submission. Although districts/colleges recognize the Chancellor's Office has resource constraints, they felt more training from the CCCCCO would help benefit the entire system and help ensure consistent, accurate data. They also felt resources such as mapping guides that document how MIS data elements are used in Data Mart reports would be extremely beneficial. While Data Mart (<https://datamart.cccco.edu/DataMart.aspx>) is CCCCCO's online system that provides information and many reports about students/headcounts, student services, outcomes, courses/calendar faculty and staff for the community college system as a whole, more understanding is needed to use the tool more effectively. Districts also indicated that increased dialogue with the CCCCCO about upcoming changes would help both them and the CCCCCO as they all prepare for implementation.

District and college leaders are appropriately making improved student outcomes a priority and are directing resources to improved services for students. Good data management plays an essential role in monitoring student success and can be quite helpful in focusing resources on services that have the most impact. Developing and sustaining good data management practices requires time and resources, as well as an organizational commitment to developing and sustaining policies and practices for data governance. District and college leaders should recognize that quality data is an organizational asset and ensure resources are allocated for data governance and management, including formal identification of roles and responsibilities, written procedures that are maintained over time, and adequate training for those with primary and backup data management responsibilities. District and college leaders are encouraged to engage in an ongoing dialogue with those involved with MIS reporting so that they understand the time, resources and cross-department coordination needed to implement improvements in local data management practices.

Given the pace of change in recent years, as district and college leaders set priorities for information systems/information technology (IS/IT) projects, they should examine whether current IS/IT resources are being consumed with implementing new requirements or if there are resources available to assist with improvement of existing systems, tools, and resources for data manage-

ment staff. For example, staff currently are hampered in their ability to monitor data quality by lack of access to well-documented local reports that mimic how data will be reported on Data Mart and/or provide easy access to trend data. District and college staff need access to tools to support their efforts to improve processes and data quality.

Districts and colleges reported that the increased focus on helping students graduate and transfer has increased the Associate Degree for Transfer (ADT) verification workload. Many reported staffing has not kept pace with the growth in transfers and they are challenged to meet the timelines required by the California State University system for ADT verifications. They also reported that communications from CSU to transferring students has unintentionally resulted in inefficient use of district/college resources. Dialogue between CSU, CCCCCO and districts may help eliminate or reduce the problem.

District and college staff interviewed indicated that the pace of change in recent years made it difficult to implement continuous improvement processes. They implement one change and are required to move quickly to another change without time to reflect on how to improve their implementation of the first change. Staff also indicated that sometimes communications between the CCCCCO and districts/colleges and between the district and colleges can be challenging. Sometimes all involved do not receive the message about an upcoming change and/or there may be different understandings about how a change is to be implemented. The CCCCCO and districts are encouraged to explore methods for improving communications to ensure affected staff receive clear and consistent messages about upcoming changes with sufficient time to plan and implement them.

Findings and Recommendations

Base Allocation

The base allocation is primarily based on units of full-time equivalent students (FTES). One FTES represents a full-time student taking 15 units in 35 weeks of instruction, or 525 hours of attendance. Attendance can be collected by census date accounting, based on a predetermined date during the term for courses scheduled coterminously with regular meeting patterns, or a weekly census for courses that are not coterminous with the primary term. Positive attendance, accounting for actual hours of attendance, is used for courses with short term credit courses, irregularly scheduled credit courses, and open entry/open exit courses. Alternate attendance accounting procedures are used for courses with atypical characteristics or requirements, or an unknown type of meeting pattern; for example, intercollegiate athletics, field trips, labs and hours to be arranged.

Attendance is reported to the Chancellor's Office through the CCFS-320 process three times a year following the end of each term: P1 (first period) July 1 through December 31 (data is annualized); P2 (second period) July 1 through April 15 (data is annualized); Final (annual) July 1 thru June 30. Revisions may be made following the final report if adjustments are needed.

Data Collection

Prior to the implementation of the SCFE, funding was based primarily on FTES apportionment, and as a result, districts have well-established practices around the collection, reporting and reviews of these data. Minor issues were reported with collecting data, such as occasional problems with instructors not returning attendance within the required timelines, difficulty with capturing hours for programs that may meet on weekends due to software limitations, and additional efforts required in accurately collecting attendance for dual enrollment students.

Attendance Monitoring and Report Preparation

Most of the districts in this study reported some systematic process of monitoring and review of attendance data and many stated that multiple departments collaborated in these processes. Attendance data are regularly audited and heavily scrutinized. Several cited weekly and even daily reviews and analyses of FTES by census type, as well as departmental and divisional trends. Some had developed processes including maintaining duplicate attendance systems for monitoring during the term, custom Structured Query Language (SQL) reports, workbooks, and reverse engineering of the 320 report. Staff verify that instructors substantiate rosters and sign for attendance, and run error reports looking for specific errors, such as problems with non-residency and positive attendance.

320 Reporting Process

Attendance data are reported at specified times during the year, aligned with the school terms, to the Chancellor's Office through the Apportionment Attendance Report (CCFS-320) system. The reporting timelines are defined by the California Code of Regulations (CCR), Title 5, section 58003.4. Data are hand-entered for the CCFS-320 reporting, and the process was described as "a little clunky" and cumbersome. Although several interviewed staff reported having incomplete data and issues due to short turnaround times especially for the P2 report, the P2 numbers are

preliminary and are corrected at the final report. Occasionally recalculations are submitted, but this is not typical. The CCCCCO should consider developing a process by which CCFS-320 data could be uploaded rather than being hand entered by districts so key-entry errors are avoided and data more accurate and need less corrections.

Several specific issues were raised regarding the CCFS-320 reporting. One district reported errors and underreporting for special admits and incarcerated students in prior years but has rectified its collection and monitoring for current reporting. Positive attendance was carefully examined, and if there were any questions or concerns about the supporting documentation, it was not reported for that course.

The ability to report summer attendance for courses that cross fiscal years was noted as beneficial to the districts for maximizing revenue. Staff stated that those courses were carefully tracked to identify when they were reported.

Several districts noted that the lack of availability of statewide training for the CCFS-320 reporting was of concern, as was documentation to provide context around the use of the data, especially for new staff. They also reported being unable to find Frequently Asked Questions or a repository of resources on the Chancellor's Office website. Some voiced frustration that they were unable to reach Chancellor's Office staff by telephone and were unable to leave messages as voice mailboxes frequently were full. Either staff needs to ensure their mailboxes do not get full, or another method should be implemented so that field staff can leave messages and get responses, such as an automated ticket tracking system. To work around these issues, personnel work with other districts and colleges to get questions answered whenever possible rather than working with CCCCCO staff.

320 Data Quality

The CCFS-320 reports were reported to be carefully reviewed following each submission. As previously noted, many districts engaged staff in multiple departments (admissions and records, finance, schedulers) in the post submission analysis with internally developed multiyear trend reports. Review procedures were not consistently well-documented, or in some cases not documented at all. Rather, staff were trained in how to review and reconcile the data with the SIS, or other systems in which attendance data are maintained. It is critical to develop and follow desk procedures that document steps taken to complete attendance accounting tasks. These procedures should have sufficient detail so that a new staff member could read them and understand how to complete each necessary task. A schedule should be established and followed for annual review and update as necessary of the procedures for attendance accounting. To be effective, staff must be provided time to complete the review and update, and to be held accountable for it.

All attendance data are subject to annual independent audits; as a result, districts reported verifying contact hours to ensure they are reported accurately and not reporting course attendance if there were any concerns with data or less than desirable supporting documentation, to avoid potential audit issues. Reports are also reviewed by finance offices for verification and alignment with audit standards as they are more familiar with content of the data. One issue that was reported to be of concern is the reporting of dual and concurrent enrollments because the ability to capture those data were "not as clean." For example, there may be challenges in obtaining attendance data for courses held on high school campuses because the attendance data may not be recorded the same way or in the same system as courses held on college campuses.

Recommendations

The CCCCCO should:

1. Establish a method that allows people to 1) leave messages for staff if no one is available to take a call when it comes in and 2) receive a response.
2. Consider developing a process by which CCFS-320 data could be uploaded rather than being hand entered by districts.

The districts should:

1. Develop desk procedures that document data flow and steps taken to complete attendance accounting tasks relative to MIS reporting.
2. Establish a schedule of the procedures for attendance accounting for annual review and update as necessary.
3. Ensure that staff are provided time to complete an annual review and update, if necessary, of attendance accounting procedures.

Supplemental Allocation

The supplemental allocation of the funding formula is calculated based on the number of Pell Grants, California Promise Grants, and AB 540 fee waiver recipients. The funding formula is based on disbursements, not eligibility. Students apply for both Pell and California Promise grants through the Free Application for Federal Student Aid (FAFSA) system. Students applying for AB 540 fee waivers complete the California Nonresident Tuition Exemption Request form, also referred to as the AB 540 Affidavit.

Pell Grant

Pell Grants are federal grants for students with financial need. Pell Grants are limited to 12 semesters, or roughly six years. To remain eligible for federal aid, students must maintain satisfactory academic progress (e.g., cumulative GPA, workload, cumulative pace (attempted vs. completed), quantitative pace). Each college has a satisfactory academic progress policy for financial aid purposes.

Financial aid staff expressed concerns that students receiving Pell Grants could use all of the funding before transferring, potentially making it difficult or impossible for the students to afford to finish their bachelor's degrees. Staff indicated they wanted to ensure students have additional years of Pell eligibility after they transfer to a four-year institution. One college reported specific efforts to get students through in three years or less whenever possible. Staff expressed concern that they do not have time or resources to counsel individual students regarding financial literacy.

California Promise Grant

The California College Promise Grant waives the enrollment fee for eligible resident students for two years. Students can apply through the FAFSA application or by submitting the California Dream Act application. Students may qualify for the Promise Grant by various criteria.

Some reported needing clarification on the various qualifications for Promise Grant financial aid. As with the Pell Grant, academic and progress standards must be maintained for students to retain eligibility. Some students encounter problems with the application and never complete the application process. But overall, colleges reported an increase in the number of Promise Grants awarded.

AB 540

Non-resident students who have attended high school in California and received a high school diploma or its equivalent are exempt from paying non-resident tuition due to AB 540. Students apply by completing the California Nonresident Tuition Exemption Request form (AB 540 Affidavit).

Free Application for Federal Student Aid

Most students start the financial aid process with the FAFSA application, which is maintained and managed by the U.S. Department of Education. The financial aid staff take over the process once the data from the FAFSA web portal are loaded into the student information systems or other interim system for review and to make any necessary follow-up and/or corrections and determine all of the potential aid for which a student may be eligible. If any discrepancies are uncovered in the applications, the U.S. Department of Education requires that they be resolved

prior to awarding any funds, requiring staff intervention. Some data are maintained in supplemental or “shadow” systems; however, districts ensure the financial aid information pulled for MIS reporting is included in their system of records.

Some students are unaware of all of the information required to complete the application, including not knowing their own Social Security number, and may get stalled by the process and discouraged. Some are discouraged by the lengthy application. Homeless students have difficulty due to the lack of a physical address.

For students who are not initially eligible for financial aid, staff will review the FAFSA application. Students can also appeal financial aid decisions. An appeals process typically goes through a committee that can determine if the student actually is eligible.

Several colleges commented that not all students who may be eligible for financial aid were applying because students are unaware of the many financial aid options and opportunities. This was especially true of the colleges with more students from families that are not typically considered low income; these students may assume they are not eligible when they actually may qualify for aid based on true cost of college (books, transportation, cost of living). Financial aid staff were working to get more students to be aware of financial aid benefits by stressing that applying for financial aid should be part of the college application. Specific programs have been implemented for high school students, identifying those who may qualify for aid with follow-up during their first year of college.

Financial Aid Supports

Districts have responded to help students through the financial aid applications by retooling processes, developing supports, and adopting automated solutions to facilitate the completion of applications. Some examples are single-page flyers such as Steps to Financial Aid, and a one-stop model that merged the admissions and financial aid processes. Staff use tablets to work with students waiting in line for staff assistance to confirm they have all needed documents. One college reported that it has adopted a high tech-high touch model to support students.

Several colleges have recently implemented commercial solutions to facilitate application monitoring and follow-up processes. Campus Logic has been adopted at multiple colleges allowing the tracking of the entire financial aid process, verification of Institutional Student Information Record (ISIR) data, electronic verification and secure submission of financial aid documents. Staff can reach out to students on the financial aid website, link their accounts and more easily resolve simple problems, like a missing college code. The financial aid worksheet can be auto-filled with information in the system about the student and school to streamline the process. Then, the student just needs to review it. Campus Logic has allowed colleges to work more proactively with students.

Some indicated they have implemented auto-packaging for federal financial aid that provides students with all of the aid they may be eligible to receive. Previously this was a manual process, and the automation has resulted in an increase in the number of awards. A number of colleges reported that they are adopting self-service so that students are able to see awards and make simple corrections. Others have subscribed to FATV, a chatbot that can respond to students' questions about financial aid. ECMC/iGrad provides students with entrance counseling, so students understand their financial obligations for promissory notes rather than borrowing more than they need and not understanding they must pay it back.

MIS Reporting Process

Financial aid data are submitted to the Chancellor's Office MIS system annually in the fall for the previous academic year. As with the 320 reporting, practices vary by district as to audits and data reviews prior to submission. With the implementation of the funding formula, more attention is being paid to data quality. Processes have been established for internal reviews and reconciliation and analyzing variance reports from the Common Origination and Disbursement (the COD is a federal system for processing, storing, and reconciling Pell Grants, and other federal financial aid data), and resolving common errors like name changes and incorrect birthdates. Several sites have designated data stewards who have specific responsibilities for ensuring data are complete and correct, but not all have a formalized process. Prior to submissions, some districts reported sending email notifications to district and/or college staff responsible for MIS financial aid data to remind them to review data and reconcile any discrepancies. These districts reported that some staff were more consistent and diligent than others. Some districts reported that existing practices, expectations, and the source and flow are documented, but not all documentation is consistent, complete and up-to-date. Several colleges are building out shared knowledge bases using group tools like Confluence and Google Docs.

Data Quality

Financial data are maintained and reported in multiple systems, which can make reconciling all student financial aid challenging. Colleges reported that they audited the data prior to the MIS submission to try to get data clean and ensure students who were awarded grants were accurately reported. Most offices reported systematic internal reviews with the other systems (ISIR, Cal-ISIR files). There are four main financial aid disbursements to students during the academic year. Data are reconciled after each disbursement and at the end of the year. However, not all data can be reconciled because the statewide data may include financial aid provided while students attended other colleges.

After the MIS processing is complete, many reported reviewing the data and comparing numbers with the Data Mart and stated that numbers were "very close" to internal records. Trend analysis from prior years is reviewed and verified with other departments, like finance, to ensure reasonability.

Several reported concerns about the MIS reporting timelines. Since the reconciliation processes may not be complete by the reporting deadline, there may be insufficient time to report accurate financial aid data to the Chancellor's Office. One college stated that Pell Grants are underreported due to simple errors (name changes, birthdates) that cannot be resolved by the reporting deadline.

After the data are submitted to the Chancellor's Office, reports can be retrieved for review. Staff commented that since no definitions were available for the referential files and the text file is not user friendly, they found it difficult and sometimes impossible to reconcile local data to the reports. Other comments reported were that some data elements are difficult to understand; districts and colleges reported it would be easier for them to understand these data elements if the CCCCO provided more explanation of what, why and how data being reported to the Chancellor's Office are used.

Colleges reported that they are building out local processes in specific areas for ease of reconciling data from their SIS with the MIS referential files and Data on Demand counts. A consortium

of colleges is working with their SIS vendor to develop an automated processing model for Cal Grants that will reduce the time required to report this data by thousands of hours annually.

Recommendations

The CCCCCO should:

1. Provide detailed documentation regarding the financial aid counts produced on Data Mart, including elements, transformations, parameters, and time frames.

The districts should:

1. Develop desk procedures that document the data flow and steps taken to complete reporting of financial aid data for MIS reporting.
2. Identify data stewards responsible for pre- and post-MIS submission reviews.

Student Success Allocation

Data used for the student success allocation comes from MIS submissions of student and course data by term at the end of the fall, winter/spring and summer terms. The submissions include these files:

- Student Basic File
- Student Enrollment File
- Course File
- Section/Sessions/Assign File
- Student Success File
- Employee Demographic
- Student Disability File
- Student EOPS File
- Student CalWORKs File
- Student VTEA File
- College Calendar File (submitted only for the end of spring/winter term)

Annually the CCCCCO publishes a calendar of submission windows and downtimes for the MIS submissions. CCCCCO uses the downtime windows to update the system to prepare for future submissions (e.g., to complete the transition to a new year).

Local Processes for Completing Term-End MIS Submissions

Typically, a term-end MIS involves the following steps:

1. Creation of the files: Generally, the person responsible for sending the term-end MIS data files to the Chancellor's Office was in the Information Systems/Information Technology Department (the actual name of the department varied). Files were most frequently generated by the SIS used, but some districts use their own queries to create the files. All districts reported using the Data Element Dictionary, which is available from the CCCCCO at <http://extranet.cccco.edu/Divisions/TechResearchInfoSys/MIS/DED.aspx>, in this process and indicated the document was helpful. The Data Element Dictionary provides a description of the System Office MIS and the technical specifications for the data to be collected and reported to the state. Submission of course data includes the course code. Districts work with local curriculum committees and their Academic Senate on course definitions and then submit course information into the Chancellor's Office Curriculum Inventory (COCI) system for course approval and assignment of a course code. The process of assigning a course code takes time and must be complete for the course to be included in the course catalog prior to beginning of a session. As a result, work to add any new courses or update course codes if there have been changes is done well before MIS submissions.

2. Pre-submission check of the files: In some districts, the person responsible for uploading the files to the Chancellor's Office runs local routines to verify the files before they are submitted. These routines check to be sure the files are in the correct format and contain only allowable characters. Typically, in districts completing this step, the person responsible for the files corrects errors if the solution is obvious (e.g., a field missing leading zeros) and the staff person responsible for the data is contacted if research is needed to resolve the error.
3. Upload files to the Chancellor's Office: The responsible person uploads the files into the MIS site. At this point, the files go through syntactical, referential and analysis routines. The files either pass the validation checks and are uploaded, or they are rejected due to errors.
4. Correct errors: In most districts visited, the error correction process was a joint effort between the person generating the files and the person responsible for the data, also known as the data owner. In some districts, the person generating the files would correct errors with obvious solutions, especially if the pre-submission check of the files was not completed, and the data owner was responsible for correcting errors that needed to be researched (e.g., missing or invalid birthdate). In other districts, the data owner was always responsible for resolving errors. Key entry errors were reported as the most frequent cause of errors but in some instances, errors were created when the MIS files were generated (e.g., the system right justifying a field when it should be left justified) or incorrect or inconsistent understandings among those responsible for the data.
5. Resubmit the files: Once the errors were corrected, the files were regenerated and uploaded to the Chancellor's Office. If one or more files error out at this point, the process for correcting and resubmitting is repeated until all files are accepted. Because the validation process includes cross-file validations, each submission must include all required files.
6. Review data reports: Once processed and uploaded, the data are available in reports. The IS/IT staff member typically notified the data owners that the reports were available on the Chancellor's site and requested that the counts in the reports be verified. Most of the data owners reported they reviewed the reports, but also indicated that the depth of the review varies depending upon how much time is available. In some, only the data that will impact funding was reviewed in the reports to ensure accuracy. Others do a more in-depth probe. If errors in counts are identified before the data submission window closes, the district can resubmit the files and correct the data. If an error is identified after the window closes, the district may resubmit. However, this process can be cumbersome and time consuming, especially if it involves a prior fiscal year, because course information may have changed and the Chancellor's Office does not maintain historical course information.

Data owners reported that whether or not they review reports for accuracy and the depth of their review depends upon the amount of available time and competing priorities. Data owners are typically those involved in providing services to students

(e.g., Admissions and Records staff) and these staff members may be too busy with other responsibilities to do a thorough review. In some districts, the depth of the review is understood among the district team working on the submission, but in others it may not be, and leadership may not have visibility into the depth of the review.

Some districts reported that the window in August when the CCCCCO takes the MIS down for system maintenance creates challenges. No submissions can be completed during this downtime. In 2018-19 this maintenance window was August 9-23. All term-end files are due within one month after the end of each term. For summer terms ending in July, the August downtime may impact a district's ability to complete the submission within the required window. Annual program award files are submitted at the end of August/beginning of September. The August downtime may also impact this submission.

Local Data Governance Practices

Data governance practices are the practices an organization uses to manage data and information. Best practices for data governance include formalizing local data governance practices in a set of policies and procedures that encompass the full life cycle of data, including collection; use, including reporting for local, state and federal purposes, and disposal. This includes defining roles and responsibilities for data management, including decision-making authority, as well as policies, procedures, and standards regarding data collection, quality, security and privacy protection, access, and monitoring. See Appendix C for information regarding using a Responsible, Accountable, Consulted, and Informed (RACI) matrix to document roles and responsibilities; a RACI matrix can be very useful in documenting the steps in as well as the roles and responsibilities of those involved in the data management process, such as MIS submissions. See Appendix D for a sample checklist on data governance.

Local data governance practices begin with establishing roles and responsibilities for data management. Generally, staff interviewed had common understandings of roles and responsibilities for MIS data in terms of the staff responsible for collecting and reporting the data. Most staff displayed commitment to reporting accurate data and working collegially with others to complete the MIS submissions. A few districts had formal committee structures and regular meetings (e.g., monthly) to ensure consistent practices to collect, maintain, report and use accurate data. Some had completed an inventory of their data systems and had formal documentation of the shared responsibilities, including responsibilities of the data owners and the IS/IT owners in terms of providing technical support for the systems in use. However, most districts and colleges had informal structures to address issues and improvement efforts. In some districts, responsibility for the MIS submissions rested primarily with one person; most of these districts indicated that they had done little, if any, documentation and cross-training and would have difficulty completing the MIS submissions with the same degree of accuracy if that person retired or took another position. Documenting and articulating local data governance roles and responsibilities is a best practice.

Districts with a common ownership for data reporting and error correction took individual and collective responsibility for completing the steps necessary to submit accurate MIS data. Often issues were addressed one-to-one by the IS/IT person and the data owner, but if needed, other departments participated in the discussion. For example, several districts indicated that if a trend analysis revealed that data seemed to vary from what would have been expected, a meeting between Institutional Research, the data owner and IS/IT would be called to discuss the data and identify any issues with data quality or the processes for data collection and reporting.

These districts reported modifying local processes when local practices need to change to address MIS submission errors and/or data quality issues. The process for identifying and implementing changes in local practices is informal and generally initiated by data owners. A small number of districts held post submission reviews and developed collective agreements about and priorities for improvements prior to the next submission. In some districts, individuals recorded notes about changes they planned to implement to improve their practices in the next submission. Completing a post submission review and documenting changes needed to improve the next data submission is a best practice; the review typically includes what went well during the submission to capture practices that need to be sustained and what needs to be changed to improve data quality and/or the efficient completion of the next submission. See Appendix E for more details about post submission reviews. Districts that do not currently do a post submission review should adopt this practice.

In contrast with the staff in districts with a shared sense of responsibility, a small number of districts had staff who reported being focused on completing individual assignments without much regard for working as a team to address cross-department issues. Time constraints and lack of leadership-level support for districtwide focus on data practices were the most frequent explanations for this approach. Districts indicated that executive leadership was focused on providing services to students and that there was often little, if any, discussion with executive leadership about the resources needed for data management and the depth of staff review of reports once data were submitted to CCCCCO.

Districts with a collaborative, shared responsibility for data had better data management practices. This finding held whether a district had multiple colleges or a single college. Districts with shared responsibility for accurate data worked across organizational lines to investigate data errors and determine the changes in practices needed to prevent errors in the future. When changes took months to implement (e.g., changes that would impact the course catalog), they were able to work together to backward map the time needed to implement the changes by considering the time required for each step toward the final goal. Districts without shared responsibility tended not to do this backward mapping; each department did their part when convenient without the overall coordination to ensure the timeline would result in the task being completed on time.

Some districts indicated that because local decision makers may not be involved with the details about data collection and reporting, they may not understand the time required for activities such as designing and implementing process changes and for implementing and adequately testing software systems used for data collection and reporting. These districts stressed the importance of decision makers having ongoing dialogue with those involved with MIS reporting so that the decision makers can be advocates for the time, resources and cross-department coordination needed to implement changes. Districts also indicated that executive-level leaders may not thoroughly understand whether or not there are sufficient resources to review reports after submission and the depth of the review if one is completed.

Local Efforts to Improve Student Outcomes

Districts and colleges are working to successfully implement changes resulting from an increased focus on student success and equity. Staff indicate that student success metrics and the SCFF are resulting in positive changes, including:

- Increased or improved support services for students are leading to an increase in the number of students graduating and transferring. For example, districts have increased communications to students about transfers and some districts have opened student

- transfer centers that provide additional support. Some offer priority class registration to transfer students. With these increased and improved services, districts have seen an increase in student transfers. Some districts have implemented financial aid systems that send automated reminders to students who are in the process of applying for financial aid to let students know the status of their application and the steps they need to take to complete the applications (e.g., bring in required documentation); districts report such systems are helping to increase the number of students receiving financial aid.
- Improved visibility into student progress is also contributing to student success. For example, some districts have implemented online self-service degree audit programs students can use to examine their progress toward completing their degree. Others have implemented degree audit programs for counselors to use when meeting with students. This increased visibility helps keep students on track and helps them see other degrees they are on track to complete. Some districts/colleges use degree audit and “auto award” programs to identify multiple degrees a student might be eligible to receive. Districts in the study did not automatically provide degrees to students but some did use auto award programs to notify staff of students eligible for multiple degrees. Once staff verified the student’s eligibility, students were notified and could receive the additional degree(s) if they wanted to do so. Some districts auto award certificates, especially if the certificates are needed for job placement (e.g., nursing).
 - Some districts are examining how to identify students who either are eligible or could be eligible for additional degrees or certificates if they took a small number of additional classes. This effort is driven in part by a desire to help students transition to careers and in part to obtain additional funding under the SCFF. Discussions are underway that the SCFF might be statutorily changed to only reimburse districts for the highest degree or certificate awarded, not all degrees and/or certificates. Since this change occurred during the review, FCMAT was not able to determine if all districts understood the change and if they had time to discuss how the change in that policy might impact current practices.
 - Increased attention on data quality is leading to examination and improvements in some practices. For example, a number of the districts/colleges visited indicated they are in the process of reviewing course codes as they realized that the career technical education designation for courses was not necessarily correct. Some courses were coded as occupational when they were not, and some were not coded as occupational when they were. The process of updating course codes takes time as it involves action by the Curriculum Committee and the Academic Senate at the district before the district can work with the state on the changes. The process of working with the state also takes time.

Districts with large changes in data used for the SCFF between 2016-17 and 2017-18 were able to explain how increased and improved services for students resulted in the improved outcomes. For example, districts and colleges reported that the increased focus on helping students graduate and transfer has resulted in improvements in these metrics. Districts that had updated course codes to correct CTE designations indicated that sometimes the changes resulted in their CTE counts decreasing; districts worked to establish correct course designations even if it meant decreases in that metric because they wanted the data to be accurate.

Many reported staffing has not kept pace with the verification required with the growth in ADTs, and they are challenged to meet the timelines required by the CSU system for ADT verifications. Districts also expressed that communications and coordination challenges with CSU sometimes

resulted in staff time being spent on responding to questions from students who were confused or concerned about communications from CSU regarding their transfer status when the district had already informed CSU about that individual student's status.

Districts and colleges also reported challenges in the timely review of transcripts from other community colleges and other institutions of higher education. Districts and colleges ideally would complete this review shortly after a student arrives so that the student was aware of course requirements that had already been met. However, due to workload, most districts/colleges report that this work is completed just prior to graduation.

Districts reported challenges with respect to dual/concurrent enrollment students and the completion of transfer-level mathematics and English courses in the first year of enrollment. As the number of high school students taking community college courses beginning in ninth and tenth grade increases, the number of students taking transfer-level mathematics and English courses while they are still in high school also increases. These students do not count in the calculation of the completion of transfer-level mathematics and English courses in the first year of enrollment metric. As a result, many districts reported that the completion of transfer-level mathematics and English courses in the first year of enrollment metric in the SCFF does not adequately reflect their work to get students ready to transfer.

Districts also reported challenges with CCCApply. Although they acknowledged efforts underway to improve CCCApply, they indicated that ongoing work is being done to prevent applications from being submitted solely to gain access to free software through the acquisition of a ".edu" email account. Districts said that as soon as CCCApply improved to address these phony applications, those attempting to get the ".edu" email accounts became more sophisticated in how they completed the applications so that their applications would make it through spam filters. As a result, districts expressed their hope that efforts to address phony applications will be ongoing. Districts also indicated that some of the questions in CCCApply result in residency problems for some students. For example, when ninth and tenth grade students who apply are asked where they attended high school in the last two years, they cannot provide a California school because they did not attend high school for the past two years; their response results in the system assuming they are from out of state.

District and college staff interviewed indicated that the pace of change in recent years has made it difficult to implement continuous improvement processes. Districts and colleges implement one change and are then required to move quickly to another change without time to reflect on how to improve their implementation of the first change. Districts also reported that the pace of change has resulted in SIS vendors focusing the vast majority of their attention on mandated changes. As a result, some of the changes districts have requested have been waiting in the vendors' queues for years.

Districts also noted that at times, it appears the pace of change is also a challenge for the CCCCO. They reported that on multiple occasions the Chancellor's Office has released information about an upcoming change and then received a large volume of communications from districts/colleges indicating why the planned change was problematic. Sometimes when this occurred, the CCCCO issued clarifications or policy adjustments within a few days or weeks of the initial communication, which may increase the workload and confusion among districts. To decrease the risk of this occurring again, districts expressed an interest in increasing the dialogue between the CCCCO and districts about upcoming changes so that implementation challenges and unintended consequences can be discussed and resolved before changes are finalized.

Training/Knowledge Transfer

Districts attend annual webinars by the Chancellor's Office on changes in the MIS process as well as regional and statewide professional learning opportunities sponsored by professional organizations and SIS users' groups. Districts reported that although the sessions on the MIS changes by the Chancellor's Office were helpful, they would benefit from additional training from the CCCCCO. Districts reported that having training that focuses on the entire MIS submission and the connections to student success, as well as cyber security, would be helpful for all staff involved in the MIS submission process, and especially for new staff. Many districts reported that those working to ensure the data submitted to the Chancellor's Office were complete and correct needed to understand why data were collected and how individual data elements were used. They indicated that when information about how student success metrics are calculated and monitored is not shared with those doing MIS reporting, those staff don't necessarily have the context they need to understand how to correct errors or identify changes to improve practices. Districts also requested more training on the interrelationships between data elements and data files.

Districts noted that the Chancellor's Office offers training for new financial aid officers for two years at the Chancellor's Office, as well as annual refresher training, but noted that this type of training is no longer available for new staff responsible for MIS submissions. With the funding now tied to the accuracy of the MIS submission, districts indicated they would benefit from CCCCCO-sponsored training for those new to MIS submissions and requested that their staff be strongly encouraged to attend for the first two years on the job, with optional attendance after that. The Chancellor's Office staff indicated resources were not currently available to provide this type of training.

District and college representatives interviewed indicated that they learned from examples of successful practices from other districts and colleges. They expressed appreciation for conferences and webinars focused on sharing information about practices that were helping to improve student outcomes. User groups, professional organizations and the CCCCCO all encourage this type of sharing.

Some districts expressed confusion about how specific data elements from the local student information system are reflected in Data Mart reports. These districts indicated they would like training or more documentation on how data flow from the MIS files into the Data Mart reports.

In terms of local knowledge transfer, many districts expressed concern about upcoming retirements. Many districts have staff who have worked on the MIS submissions for years and have developed much expertise that potentially will be lost when they retire or if they accept another position. Several districts indicated they were working to develop local documentation of the steps taken to complete each submission but also indicated other priorities and constant change are hampering their efforts to build complete and current local documentation. Districts also expressed concern if responsibility for the MIS submissions primarily rested with one person and no back-up had been designated or trained.

Resources & Tools

Districts/colleges reported that the Data Element Dictionary was a valuable resource in the MIS submission process.

Some districts have adopted a tool or tools to assist in documentation of local practices, including SharePoint and Confluence. These districts are in the process of building documentation and developing the processes for maintaining documentation once built. Some districts are working

to document the processes used to collect, report and use data. Others are doing this and also documenting common errors, the meaning of error messages from MIS, and how to avoid these errors.

Some districts have developed local reports designed to provide staff with a preliminary view of data in the same or similar format used in the Data Mart reports. Data owners can use these reports to monitor data quality on an ongoing basis or at least just prior to a submission to try to identify and resolve problems prior to the submissions. Data owners indicated these reports were helpful, but sometimes struggled to understand exactly what data were included and the time frame covered by the reports. Often, there was little or no documentation to help users understand the specific data elements in the report, the effective dates of the data, and how any aggregates displayed were calculated. The number of reports available varied by district, but often districts indicated that there may be multiple reports that contain very similar information, which resulted in confusion about which report should be used. For example, one district reported having more than 1,000 reports.

Districts reported that their constraints on the development and implementation of tools, reports and other types of supports to assist with data management were primarily a lack of resources and the pace of change. Tools and resources often need to be implemented by the district's IS/IT department, and often staff were committed to implementing new legislative requirements and did not have the time to focus on other issues.

Recommendations

The CCCCCO should:

1. Identify resources for and provide training for new staff responsible for the MIS submissions similar to the training for new financial aid officers.
2. Provide training and/or resources for districts that explain how the data elements collected through MIS are used in the SCFF.
3. Develop a mapping guide to show how the data elements submitted in the MIS files are used in the Data Mart reports.
4. Provide documentation specifically focused on what MIS error messages mean and how to avoid them.
5. Communicate frequently with districts on changes to the funding formula to ensure all involved understand the changes as they occur and have the opportunity to develop an understanding of what this means in the local context, including what impacts the changes will have on local practices.
6. Continue opportunities for districts and colleges to share practices that are improving student outcomes and, to the extent possible, provide districts and colleges the time and resources for a continuous improvement process. Districts and colleges need the time to implement and refine the many efforts underway to focus on student success and equity.

The districts should:

1. Establish the expectation for shared ownership of data management responsibilities at the executive level and communicate this expectation to all departments.
2. Encourage and support work across departments to develop and sustain practices that support the collection, reporting and use of accurate data.
3. Develop a matrix of responsibilities for MIS tasks, including the designation of staff members who are trained to complete MIS responsibilities in the event the person with primary responsibility is unexpectedly out when the submission must be completed.
4. Provide those involved with MIS reporting in districts/colleges with information about how the data are used in the SCFF and in monitoring student success.
5. Establish ongoing communication between local decision makers and those gathering and reporting data such that the decision makers understand the time, resources, and coordination needed to support the collection, use and reporting of accurate data.
6. Once developed by CCCCCO, use the mapping guide to build staff understanding of what data goes into each report.
7. Build a common understanding among those who do the MIS data submission and those who are accountable for the accuracy of the data about how reports will be reviewed for accuracy (e.g., which data elements will be verified and the depth of the verification) and what happens if the counts are not accurate.
8. Identify resources to acquire or sustain tools that help those responsible for data accuracy to monitor data quality and develop local documentation of what data elements are included in the reports, how aggregates are calculated, the time frame for the report, and local processes for data management. Support data owners in building documentation and using reports on an ongoing basis or at least just prior to each submission.
9. Conduct a post submission review and document changes to improve the next submission.

Documentation and Sustainability

As mentioned in other sections of the report, few districts reported having current documentation of data management processes such that a new staff member could use it to complete data management responsibilities. Lack of time/resources was the most common reason given for not having this documentation. Constant change in requirements also was reported as a cause for out-of-date documentation. Documentation and current processes need to be reviewed whenever a change comes from Sacramento or a policy clarification is received to determine if procedures and the documentation need to be modified to implement the change or policy clarification.

Districts reported that it takes individuals time to develop expertise in MIS reporting and data management responsibilities. Many districts and colleges expressed concern about lack of documentation and indicated that if staff members take other jobs or retire, the new staff member may not be able to complete MIS data submission responsibilities and/or collect or report data accurately. Documentation of data management processes would facilitate knowledge transfer from one staff member to another and help ensure current practices can be sustained. Documentation also helps experienced staff remember how to complete tasks that are typically performed only at one specific time during the year.

Some districts are working on building/revising documentation to make future submissions easier (e.g., recording what error messages mean, the cause(s), and how to avoid errors in the future).

Districts reported that individuals are working hard to have good data, but all of the recent changes and the focus on student success sometimes means that efforts are focused on student services rather than on documentation of data management processes, report verification or process improvements. Districts must ensure that local data management documentation is created and updated. That documentation should include a detailed description of each data management task and responsible parties, including who is responsible for each task, who is accountable for the task, who is consulted, and who is informed about work. Best practice is to include common errors, what they mean and how to avoid them. A schedule should be adopted for periodic review and updating of data management documentation (e.g., annually or every other year) and the responsible parties should be provided with the time and tools necessary to keep documentation current.

Recommendations

The CCCCCO should:

1. Advocate for districts and colleges to allocate resources to help them develop and maintain adequate local documentation of data management practices.
2. Create a forum where examples of local documentation can be shared with other districts as examples of best practices for documentation.

The districts should:

1. Create or update local data management documentation.
2. Adopt a local schedule for periodically reviewing and updating data management documentation and provide the responsible parties with the time and tools necessary to keep documentation current.

CCCCO Communications

The CCCCCO utilizes various alias lists and listservs to communicate with districts and colleges. Alias lists are used to distribute information to individuals holding specific positions in the California Community Colleges system. A communication is sent to an alias list when there is a targeted audience for the message. For example, a message might be designed for and sent to chief business officers or chief student services officers. The CCC Technology Center also hosts listservs for the California Community Colleges regional and system-wide organizations.

Districts and colleges appreciate the information they receive via the various lists and listservs. However, sometimes information sent to one list is applicable to others in a district/college and it may take time for the message to reach all whose job responsibilities are impacted by a communication. This can be especially true about communications regarding changes in MIS reporting since it impacts many departments across districts and colleges. Sometimes all involved do not receive the message about an upcoming change and/or there may be different understandings about how a change is to be implemented because the information was stated a bit differently on different lists. The CCCCCO could consider establishing a new state listserv that is used to communicate information about upcoming MIS changes. This listserv would be in addition to the existing listservs and would be open to any community college staff who wish to subscribe.

When districts/colleges have questions about MIS reporting, they are directed to send questions to the email box for MIS (cccmisedit@cccco.edu). There is no public knowledge base where users can look up previously asked questions and the response. Users indicated they generally received a response after they submitted a question, but noted that the response could take a long time, especially if it required collaboration between multiple divisions within the CCCCCO. The CCCCCO does not use a help desk software program to track emails received by date or topic, making it difficult to collect metrics and monitor responses to inform improvement efforts. A help desk tracking system should be considered to collect information on volume of tickets, days to resolution, the frequency of questions on a topic, etc. If a tracking system is adopted, the Chancellor's Office should use the frequency of questions on the same topic to improve trainings, as well as the average response time, to help determine if additional coordination, focus or resources are needed to address questions received.

The MIS section of the Chancellor's website (<http://extranet.cccco.edu/Divisions/TechResearchInfoSys/MIS.aspx>) contains information and resources about MIS submissions, including previous web-based trainings and the Data Element Dictionary. However, some resources are difficult to find and may not be readily accessible to users who are not familiar with the site. The Data Element Dictionary is not searchable. The CCCCCO indicated a project is underway to revise all data dictionaries to make them more consistent and easier to use.

Districts and colleges indicated that changes are not always communicated with sufficient lead time to make changes needed in the SIS and in local practices. Districts indicated they used to receive notice approximately one year prior to the change and frequently had the opportunity to implement changes one term before the data would be officially reported so they could identify and resolve issues related to the data collection before the data were used. They reported that now the lead time is much shorter, often just a few months. This means there is little time to implement the change and adjust the implementation plans if unexpected results or consequences are encountered.

Districts also indicated that in the past there was more two-way dialogue with the CCCCCO before changes finalized. Districts indicated this dialogue was useful as it helped them understand

and prepare for upcoming changes and it also provided the CCCCCO with feedback on implementation challenges and possible unintended consequences. Districts expressed willingness to engage in more of these types of discussions with the CCCCCO and felt they would benefit both districts and the Chancellor's Office. The Chancellor's Office indicated that this type of dialogue could be useful, but that time and resource constraints make it challenging.

Recommendations

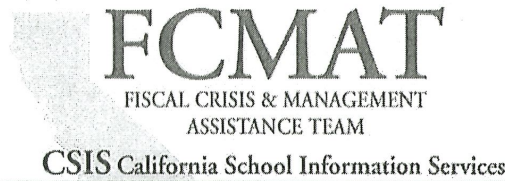
The CCCCCO should:

1. Consider how communication channels can be improved so that individuals in various district/college roles receive the same message about upcoming MIS reporting changes.
2. Communicate MIS reporting changes and the rationale for changes in multiple ways so individuals who missed the first announcement have other opportunities to learn of the change.
3. Gather feedback from districts and colleges about potential changes, implementation challenges, unintended consequences and the amount of lead time necessary to prepare for MIS reporting changes. Use the feedback to refine proposed changes and the planned implementation schedule when possible.
4. Gather input from those involved in the MIS submission process, including new staff, and revise the MIS submission webpages so it is easier to find resources related to the submission.
5. Consider utilizing a help desk tracking system to collect information on volume of tickets, days to resolution, frequency of questions on a topic, etc. to help determine if additional coordination, focus or resources are needed to address questions received.

Appendices

Appendix A

Study Agreement



RECEIVED FEB 23 2019

10541

Approved to establish
Contract

John [Signature]

2/20/19

2/25/19 - 2/24/20

\$150,000⁰⁰

FISCAL CRISIS & MANAGEMENT ASSISTANCE TEAM
STUDY AGREEMENT
February 12, 2019

See attached email showing Kern County as the agent.

The Fiscal Crisis Management and Assistance Team (FCMAT), hereinafter referred to as the Team, and the California Community Colleges Chancellor's Office on behalf of the California Community College Board of Governors, hereinafter referred to as the Chancellor's Office, mutually agree as follows:

1. BASIS OF AGREEMENT

The Chancellor's Office has requested that the Team conduct a management assistance study on data management practices across the community college system and provide recommendations and suggested protocols to improve data quality and data management practices for data used in the Student Centered Funding Formula, enacted in 2018. The Team will serve as a subcontractor or subgrantee of the Chabot-Las Positas Community College District (CLPCCD) to complete the work outlined in this agreement under the direction of the Chancellor's Office. CLPCCD will serve as the Fiscal Agent. All work shall be performed in accordance with the terms and conditions of this Agreement.

2. SCOPE OF THE WORK

A. Scope and Objectives of the Study

The Team will:

1. Analyze data used in the Student Centered Funding Formula through 2017-18 and summarize trends in the data, noting any anomalies.
2. Conduct a review of data management responsibilities and practices related to the collection, review, reporting and transformation of data elements used in the Student Centered Funding Formula at 10-15 community colleges selected by the Team as the study sample. The methodology for identifying the sample will include consideration of the college size, region, and whether the college is in a single-college district or a multi-college district. The review at each college/district in the selected sample will include both examination of documents and interviews of staff regarding data policies, procedures, responsibilities, and flow for the data elements used in the Student Centered Funding Formula.
3. Provide recommendations on best practices for data management designed to improve data quality, data collection practices, data flow and/or reporting at individual community colleges and between colleges, districts and the Chancellor's Office.

Veronica Morrow vmorrow@fcmat.org

4. In consultation with the Chancellor's Office, provide sample protocols and audit procedures to improve data management practices designed to address issues identified in the review.

Services and Products to be Provided

1. Trend Analysis – The team will review the data used in the Student Centered Funding Formula for the period of 2012-13 through 2017-18 for the community colleges in the sample to the extent the data are available, and identify trends and any changes in the data during this period that appear to be beyond what would be expected with typical year-to-year variations.
2. Orientation Meeting – The team will conduct an orientation session at the Chancellor's Office and each community college in the sample to brief designated personnel on the team's procedures, purpose and schedule.
3. Sample Selection – The team will select a sample of 10-15 community colleges using methodology that considers college size, region, and whether the college is in a single-college district or a multi-college district.
4. On-site Review – The team will conduct an on-site review at the Chancellor's Office as well as on-site reviews of the community colleges and their respective districts in the sample. The on-site visit at the Chancellor's Office will include a review of data storage, processing, and extraction of the data through the Chancellor's Office Management Information System (COMIS), as well as how external data is acquired, processed, stored, matched, and otherwise extracted. The on-site visits at colleges and districts will include a review of data management practices, including data collection as well as any processes and transformations performed.
5. Draft Report – Electronic copies of a preliminary draft report will be delivered to the Chancellor's Office for review and comment.
6. Final Report – Electronic copies of the final study report will be delivered to the Chancellor's Office following completion of the review. The final report will be published on the FCMAT website.
7. Presentations – At the request of the Chancellor's Office, make presentations regarding the study and the findings to the Chancellor's Office staff, Board of Governors of the California Community Colleges, Department of Finance, and legislative committees.

3. **PROJECT PERSONNEL**

The FCMAT Team may include:

- | | |
|----------------------------------|-----------------------------------|
| 1. Michelle Giacomini | FCMAT Deputy Executive Officer II |
| 2. Nancy Sullivan | Consultant |
| 3. Data Management Consultant | TBD |
| 4. Community Colleges Consultant | TBD |

Other equally qualified FCMAT staff or consultants will be substituted in the event the above individual is unable to participate.

4. **PROJECT COSTS**

The Fiscal Agent will be invoiced and will process payments. Invoices will not be processed for payment without prior approval of the Chancellor's Office. The total cost shall include the following costs:

- A. \$1,100 per day for each FCMAT staff member while on site, conducting fieldwork at other locations, presenting reports, or participating in meetings. The cost of independent consultants will be billed at the actual daily rate for all work performed.
- B. All out-of-pocket expenses for FCMAT staff members and consultants while traveling for the purposes of this agreement, including travel, meals, lodging, etc. The Fiscal Agent will be invoiced at actual costs.
- C. The Fiscal Agent will be invoiced at actual costs, with 50% of the estimate cost due following the completion of the on-site reviews and the remaining amount due upon the Chancellor's Office acceptance of the final report.

Based on the elements noted in section 2, the annual total not-to-exceed cost of the study is \$150,000.

Any change to the scope, as well as specific requests to change recommended protocols, will affect the estimate of total cost.

Payments for FCMAT services are payable to Kern County Superintendent of Schools - Administrative Agent, located at 1300 17th Street, Bakersfield, CA 93301.

5. **RESPONSIBILITIES OF THE CHANCELLOR'S OFFICE**

Chancellor's Office responsibilities will include the following:

- 1. Designate a lead for this study who will:
 - a. Provide the Team the following:

- i. Copies of policies, regulations, data dictionaries or other documents defining data elements in the Student Centered Funding Formula; file formats to be used in transmitting the data to districts and/or the Chancellor's Office; procedures or other documents describing how data are to be collected and submitted to districts and the Chancellor's Office, including any transformations to be performed; and prior reports addressing the data management and the data elements involved in the scope of this study.
- ii. Spring break schedules or other holidays that occur during the time period of this study that may impact when the team can make on-site visits.
- iii. Any documents requested on a supplemental listing.
- b. Coordinate with each of the community colleges in the sample to identify a lead at each community college and communicate the following expectations to each college lead:
 - i. Prior to the onsite visit, provides the team copies of written policies, job descriptions/duty statements that include data management responsibilities, procedure manuals, prior reports, file formats, data edits, or any other documentation related to the data elements used for the Student Centered Funding Formula or other documents related to the study requested by the team.
 - ii. Identifies for the team in advance of the onsite visit those at each college responsible for data management, including but not necessarily limited to data collection, data review, error resolution, and data reporting.
 - iii. Ensures individuals with data management responsibilities at that campus are available for interviews during the onsite review, and
 - iv. Assists in scheduling interviews.
2. Provide interpretation of laws and regulations to FCMAT.
3. Work directly with interested stakeholders, such as the Department of Finance, and provide guidance to the FCMAT Team on the interpretation of laws, regulations and codes when requested by FCMAT.
4. Review and provide feedback to FCMAT on the draft report.

Any documents requested should be provided to FCMAT in electronic format; if only hard copies are available, they should be scanned by the district and sent to FCMAT in electronic format.

All requested documents must be provided in advance of fieldwork. Any delay in the receipt of requested documentation may affect the start date and/or completion date of the study.

6. **PROJECT SCHEDULE**

The Team will commence work on February 25, 2019. The project will continue until a termination date is determined.

The project schedule outlines the key study milestones and will be established upon the receipt of a signed study agreement.

Orientation:	Approximately February 26, 2019
Staff Interviews:	To be determined
Draft Report:	May 1, 2019
Final Report:	To be determined
Presentations:	To be determined

Booked for 1 year.
(40)
2/23/19

7. **COMMENCEMENT, TERMINATION AND COMPLETION OF WORK**

FCMAT will begin work as soon as this agreement is executed and FCMAT has assembled an available and appropriate study team consisting of FCMAT staff and independent consultants, taking into consideration other jobs FCMAT has previously undertaken and assignments from the state. The team will work expeditiously to complete its work and deliver its report, subject to the cooperation of the Chancellor’s Office and sample community colleges and any other parties from which, in the team’s judgment, it must obtain information. Once the team has completed its fieldwork, it will proceed to prepare a preliminary draft report and a final report. Prior to completion of fieldwork, the Chancellor’s Office may terminate its request for service and will be responsible for all costs incurred by FCMAT to the date of termination under Section 4 (Project Costs). If the Chancellor’s Office does not provide written notice of termination prior to completion of fieldwork, the team will complete its work and deliver its report and the Chancellor’s Office will be responsible for the full costs. The Chancellor’s Office understands and agrees that FCMAT is a state agency and all FCMAT reports are published on the FCMAT website and made available to interested parties in state government. In the absence of extraordinary circumstances, FCMAT will not withhold preparation, publication and distribution of a report once fieldwork has been completed, and the Chancellor’s Office shall not request that it do so.

8. **INDEPENDENT CONTRACTOR**

FCMAT is an independent contractor and is not an employee or engaged in any manner with the Chancellor’s Office or the Fiscal Agent. The manner in which FCMAT’s services are rendered shall be within its sole control and discretion. FCMAT representatives are not authorized to speak for, represent, or obligate the Chancellor’s Office in any manner without prior express written authorization from an officer of the Chancellor’s Office.

9. **INSURANCE**


During the term of this agreement, FCMAT shall maintain liability insurance of not less than \$1 million unless otherwise agreed upon in writing by the Chancellor’s Office, automobile liability insurance in the amount required under California state law, and workers compensation as required under California state law. FCMAT shall provide certificates of insurance, with California Community Colleges Chancellor’s Office named as additional insured, indicating applicable insurance coverages upon request.

10. HOLD HARMLESS


FCMAT shall hold the Chancellor's Office, its board, officers, agents and employees harmless from all suits, claims and liabilities resulting from negligent acts or omissions of its board, officers, agents and employees undertaken under this agreement. Conversely, the Chancellor's Office shall hold FCMAT, its board, officers, agents and employees harmless from all suits, claims and liabilities resulting from negligent acts or omissions of its board, officers, agents and employees undertaken under this agreement.

11. CONTACT PERSON


Name: Christian Osmeña, Vice Chancellor of College Finance and Facilities
Planning Division
Telephone: (916) 322-9508
E-mail: cosmena@ccccc.edu




Date 2.27.19
Julia A. Dozilar
Chabot-Las Positas Community College District Representative



Date February 12, 2019
Michael H. Fine
Chief Executive Officer
Fiscal Crisis and Management Assistance Team

OK 
2/23/19

See attached Email
showing Kern County as
the agent.


Appendix B Data Analysis

Section 1: Analysis of Student Success Metrics 2016-17 to 2017-18 Data Provided by CCCCO, Dated December 20, 2018

Table 1.1: Associate Degrees (AD) Awarded and Associate Degrees for Transfer (ADT)

District	2016-17 AD Total	2017-18 AD Total	AD % Change Since 16-17		2016-17 ADT Total	2017-18 ADT Total	ADT Changes Since 16-17
Allan Hancock	1,076	1,071	-0.5%		259	298	15.1%
Antelope	1,303	1,224	-6.1%		430	566	31.6%
Barstow	274	291	6.2%		79	74	-6.3%
Butte	1,152	1,143	-0.8%		303	367	21.1%
Cabrillo	1,035	1,188	14.8%		227	272	19.8%
Cerritos	1,090	1,186	8.8%		645	758	17.5%
Chabot-Las Positas	1,351	1,254	-7.2%		432	689	59.5%
Chaffey	1,775	2,141	20.6%		726	987	36.0%
Citrus	2,170	2,291	5.6%		803	1,027	27.9%
Coast	4,211	4,207	-0.1%		1,573	1,690	7.4%
Compton	493	636	29.0%		0	0	
Contra Costa	2,308	2,891	25.3%		1,280	1,697	32.6%
Copper Mountain	145	163	12.4%		59	63	6.8%
Desert	428	498	16.4%		476	579	21.6%
El Camino	2,432	2,203	-9.4%		349	1,096	214.0%
Feather River	166	170	2.4%		26	57	119.2%
Foothill	2,085	1,983	-4.9%		1,070	1,256	17.4%
Gavilan	365	360	-1.4%		157	238	51.6%
Glendale	382	402	5.2%		467	545	16.7%
Grossmont	2,125	2,453	15.4%		920	1,184	28.7%
Hartnell	550	755	37.3%		402	559	39.1%
Imperial	952	949	-0.3%		368	412	12.0%
Kern	1,329	1,436	8.1%		781	1,112	42.4%
Lake Tahoe	102	99	-2.9%		43	64	48.8%
Lassen	206	175	-15.0%		47	39	-17.0%
Long Beach	749	806	7.6%		782	936	19.7%
Los Angeles	8,927	9,409	5.4%		2,540	3,446	35.7%
Los Rios	4,597	4,574	-0.5%		1,601	1,894	18.3%
Marin	203	211	3.9%		99	134	35.4%
Mendocino	233	258	10.7%		93	94	1.1%
Merced	632	612	-3.2%		441	572	29.7%
MiraCosta	928	1,302	40.3%		223	350	57.0%
Monterey	356	397	11.5%		254	331	30.3%
Mt. San Antonio	1,685	1,778	5.5%		524	833	59.0%

District	2016-17 AD Total	2017-18 AD Total	AD % Change Since 16-17	2016-17 ADT Total	2017-18 ADT Total	ADT Changes Since 16-17
Mt. San Jacinto	1,668	1,927	15.5%	337	496	47.2%
Napa	521	433	-16.9%	218	253	16.1%
North Orange	1,892	2,300	21.6%	1,279	1,590	24.3%
Ohlone	720	785	9.0%	260	291	11.9%
Palo Verde	133	164	23.3%	14	8	-42.9%
Palomar	1,606	1,620	0.9%	312	438	40.4%
Pasadena	3,090	4,028	30.4%	1,040	1,393	33.9%
Peralta	1,278	1,345	5.2%	505	568	12.5%
Rancho Santiago	2,989	3,302	10.5%	1,062	1,237	16.5%
Redwoods	424	443	4.5%	62	77	24.2%
Rio Hondo	956	1,202	25.7%	552	622	12.7%
Riverside	3,477	5,045	45.1%	593	920	55.1%
San Bernardino	1,536	1,365	-11.1%	527	611	15.9%
San Diego	2,010	2,049	1.9%	1,304	1,473	13.0%
San Francisco	1,117	1,180	5.6%	261	294	12.6%
San Joaquin Delta	2,631	2,571	-2.3%	203	231	13.8%
San Jose	744	789	6.0%	454	594	30.8%
San Luis Obispo	674	633	-6.1%	418	428	2.4%
San Mateo	1,375	1,336	-2.8%	925	955	3.2%
Santa Barbara	1,984	1,953	-1.6%	0	500	
Santa Clarita	1,395	1,542	10.5%	729	1,062	45.7%
Santa Monica	2,064	3,048	47.7%	572	775	35.5%
Sequoias	949	949	0.0%	282	463	64.2%
Shasta Tehama	616	689	11.9%	176	260	47.7%
Sierra	2,004	2,028	1.2%	724	830	14.6%
Siskiyou	223	203	-9.0%	14	17	21.4%
Solano	1,152	1,263	9.6%	188	218	16.0%
Sonoma	1,522	1,774	16.6%	629	695	10.5%
South Orange County	2,009	2,398	19.4%	1,082	1,315	21.5%
Southwestern	1,043	1,045	0.2%	653	750	14.9%
State Center	1,304	1,609	23.4%	1,409	1,854	31.6%
Ventura	3,518	4,106	16.7%	1,871	2,161	15.5%
Victor Valley	968	994	2.7%	110	177	60.9%
West Hills	762	798	4.7%	120	214	78.3%
West Kern	360	355	-1.4%	105	105	0.0%
West Valley	616	699	13.5%	532	666	25.2%
Yosemite	1,340	1,474	10.0%	470	607	29.1%
Yuba	1,061	902	-15.0%	188	265	41.0%
Statewide Total	101,546	110,862	9.2%	38,659	49,632	28.4%

Table 1.2: Credit Certificates Awarded and Students Taking Nine or More Units of CTE

District	2016-17 Credit Certificates Awarded	2017-18 Credit Certificates Awarded	Certificates % Change Since 16-17	2016-17 CTE Total	2017-18 CTE Total	CTE Changes Since 16- 17
Allan Hancock	791	750	-5.2%	1,933	1,915	-0.93%
Antelope	895	1,049	17.2%	2,138	2,033	-4.91%
Barstow	17	80	370.6%	421	374	-11.16%
Butte	517	490	-5.2%	2,260	2,192	-3.01%
Cabrillo	176	169	-4.0%	1,174	1,135	-3.32%
Cerritos	1,504	2,227	48.1%	3,846	3,738	-2.81%
Chabot-Las Positas	378	577	52.6%	2,582	2,718	5.27%
Chaffey	1,210	1,654	36.7%	2,442	2,382	-2.46%
Citrus	1,462	2,031	38.9%	1,919	1,728	-9.95%
Coast	4,358	4,322	-0.8%	5,849	5,565	-4.86%
Compton	178	104	-41.6%	559	555	-0.72%
Contra Costa	1,703	2,126	24.8%	4,526	4,406	-2.65%
Copper Mountain	66	76	15.2%	227	232	2.20%
Desert	200	300	50.0%	1,628	1,688	3.69%
El Camino	557	719	29.1%	2,626	2,690	2.44%
Feather River	0	10	#DIV/0!	338	590	74.56%
Foothill	682	1,084	58.9%	5,908	5,263	-10.92%
Gavilan	562	657	16.9%	813	729	-10.33%
Glendale	241	207	-14.1%	2,327	2,231	-4.13%
Grossmont	1,497	1,649	10.2%	2,407	2,385	-0.91%
Hartnell	673	829	23.2%	869	839	-3.45%
Imperial	582	694	19.2%	1,249	1,378	10.33%
Kern	536	1,660	209.7%	4,734	4,789	1.16%
Lake Tahoe	33	25	-24.2%	287	245	-14.63%
Lassen	136	105	-22.8%	289	295	2.08%
Long Beach	213	229	7.5%	3,020	2,747	-9.04%
Los Angeles	7,983	8,180	2.5%	20,035	17,253	-13.89%
Los Rios	2,099	2,532	20.6%	9,058	8,430	-6.93%
Marin	59	86	45.8%	464	434	-6.47%
Mendocino	63	55	-12.7%	529	517	-2.27%
Merced	480	605	26.0%	1,358	1,443	6.26%
MiraCosta	1,004	1,463	45.7%	1,891	1,863	-1.48%
Monterey	113	254	124.8%	850	880	3.53%
Mt. San Antonio	582	542	-6.9%	5,150	4,956	-3.77%
Mt. San Jacinto	137	141	2.9%	1,370	1,409	2.85%
Napa	368	440	19.6%	863	845	-2.09%
North Orange	825	900	9.1%	4,922	4,770	-3.09%
Ohlone	37	58	56.8%	1,007	905	-10.13%
Palo Verde	51	36	-29.4%	581	738	27.02%
Palomar	1,635	1,641	0.4%	3,377	3,432	1.63%

District	2016-17 Credit Certificates Awarded	2017-18 Credit Certificates Awarded	Certificates % Change Since 16-17	2016-17 CTE Total	2017-18 CTE Total	CTE Changes Since 16- 17
Pasadena	536	548	2.2%	3,251	3,092	-4.89%
Peralta	1,188	1,220	2.7%	2,960	2,758	-6.82%
Rancho Santiago	2,614	2,679	2.5%	3,761	3,903	3.78%
Redwoods	177	122	-31.1%	746	737	-1.21%
Rio Hondo	166	1,561	840.4%	2,025	1,972	-2.62%
Riverside	871	1,034	18.7%	4,311	4,286	-0.58%
San Bernardino	580	565	-2.6%	2,274	2,591	13.94%
San Diego	1,141	1,199	5.1%	6,180	6,048	-2.14%
San Francisco	730	809	10.8%	3,538	4,363	23.32%
San Joaquin Delta	1,101	755	-31.4%	3,453	3,264	-5.47%
San Jose	573	735	28.3%	1,870	1,728	-7.59%
San Luis Obispo	336	349	3.9%	1,403	1,427	1.71%
San Mateo	1,242	1,220	-1.8%	2,817	2,776	-1.46%
Santa Barbara	1,581	1,258	-20.4%	2,971	2,682	-9.73%
Santa Clarita	1,524	1,420	-6.8%	2,752	2,933	6.58%
Santa Monica	1,456	2,388	64.0%	3,822	3,758	-1.67%
Sequoias	195	355	82.1%	1,820	1,825	0.27%
Shasta Tehama	417	555	33.1%	1,548	1,527	-1.36%
Sierra	185	188	1.6%	2,659	2,547	-4.21%
Siskiyou	57	114	100.0%	435	317	-27.13%
Solano	146	145	-0.7%	1,201	1,155	-3.83%
Sonoma	573	614	7.2%	2,868	2,888	0.70%
South Orange County	3,538	3,747	5.9%	4,491	4,360	-2.92%
Southwestern	651	570	-12.4%	2,159	2,091	-3.15%
State Center	675	1,510	123.7%	5,569	5,659	1.62%
Ventura	2,144	3,724	73.7%	3,828	3,942	2.98%
Victor Valley	206	195	-5.3%	1,915	1,777	-7.21%
West Hills	277	346	24.9%	983	939	-4.48%
West Kern	60	31	-48.3%	303	313	3.30%
West Valley	283	457	61.5%	1,911	1,867	-2.30%
Yosemite	364	693	90.4%	2,995	2,865	-4.34%
Yuba	61	102	67.2%	1,463	1,365	-6.70%
Statewide Total	60,251	71,964	19.4%	192,108	186,472	-2.93%

Table 1.3: Students Completing Transfer-Level English and Mathematics During Their First Year of Enrollment

District	2016-17 English & Math Transfer Level Courses Complete First Year	2017-18 English & Math Transfer Level Courses Complete First Year	English & Math Transfer Level Courses Complete First Year % Change Since 16-17
Allan Hancock	215	184	-14.4%
Antelope	206	187	-9.2%
Barstow	26	58	123.1%
Butte	261	314	20.3%
Cabrillo	148	146	-1.4%
Cerritos	156	203	30.1%
Chabot-Las Positas	469	482	2.8%
Chaffey	255	270	5.9%
Citrus	224	328	46.4%
Coast	886	1,139	28.6%
Compton	33	27	-18.2%
Contra Costa	805	889	10.4%
Copper Mountain	30	36	20.0%
Desert	79	112	41.8%
El Camino	487	583	19.7%
Feather River	51	47	-7.8%
Foothill	1,037	1,172	13.0%
Gavilan	79	92	16.5%
Glendale	260	257	-1.2%
Grossmont	546	592	8.4%
Hartnell	196	183	-6.6%
Imperial	115	107	-7.0%
Kern	283	353	24.7%
Lake Tahoe	14	23	64.3%
Lassen	25	31	24.0%
Long Beach	307	339	10.4%
Los Angeles	643	985	53.2%
Los Rios	596	650	9.1%
Marin	59	56	-5.1%
Mendocino	30	30	0.0%
Merced	178	210	18.0%
MiraCosta	329	341	3.6%
Monterey	90	99	10.0%
Mt. San Antonio	368	451	22.6%
Mt. San Jacinto	348	387	11.2%
Napa	172	138	-19.8%
North Orange	681	759	11.5%
Ohlone	219	223	1.8%
Palo Verde	3	2	-33.3%

District	2016-17 English & Math Transfer Level Courses Complete First Year	2017-18 English & Math Transfer Level Courses Complete First Year	English & Math Transfer Level Courses Complete First Year % Change Since 16-17
Palomar	225	372	65.3%
Pasadena	684	867	26.8%
Peralta	273	304	11.4%
Rancho Santiago	629	717	14.0%
Redwoods	56	57	1.8%
Rio Hondo	100	189	89.0%
Riverside	376	826	119.7%
San Bernardino	169	249	47.3%
San Diego	738	904	22.5%
San Francisco	214	339	58.4%
San Joaquin Delta	182	254	39.6%
San Jose	210	308	46.7%
San Luis Obispo	166	174	4.8%
San Mateo	490	635	29.6%
Santa Barbara	368	401	9.0%
Santa Clarita	401	464	15.7%
Santa Monica	619	566	-8.6%
Sequoias	173	224	29.5%
Shasta Tehama	122	107	-12.3%
Sierra	659	686	4.1%
Siskiyou	59	95	61.0%
Solano	220	202	-8.2%
Sonoma	216	210	-2.8%
South Orange County	738	928	25.7%
Southwestern	204	263	28.9%
State Center	563	790	40.3%
Ventura	844	1,006	19.2%
Victor Valley	109	131	20.2%
West Hills	133	115	-13.5%
West Kern	41	53	29.3%
West Valley	257	322	25.3%
Yosemite	64	83	29.7%
Yuba	84	94	11.9%
Statewide Total	21,295	25,420	19.4%

Section 2: Analysis of Student Success Data 2014-15 to 2015-16

Data Obtained from Data Mart June 2019

*Table 2.1: Students Completing Associate Degrees
2013-14 to 2015-16*

District	Associate Degrees Granted			Change Between 2013-14 & 2015-16
	2013-14	2014-15	2015-16	
Allan Hancock	1,100	1,097	1,006	-9%
Antelope	1,322	1,368	1,429	8%
Barstow	302	268	272	-10%
Butte	1,392	1,241	1,278	-8%
Cabrillo	1,334	1,171	1,137	-15%
Cerritos	1,333	1,009	1,086	-19%
Chabot-Las Positas	1,213	2,024	1,229	1%
Chaffey	1,772	1,735	1,827	3%
Citrus	1,580	1,883	2,251	42%
Coast	3,702	3,989	4,251	15%
Compton	262	316	386	47%
Contra Costa	2,334	2,251	2,341	0%
Copper Mountain	151	155	181	20%
Desert	473	482	426	-10%
El Camino	1,875	1,800	2,162	15%
Feather River	219	162	181	-17%
Foothill	2,072	2,205	2,157	4%
Gavilan	384	382	361	-6%
Glendale	417	401	378	-9%
Grossmont	2,042	1,982	1,999	-2%
Hartnell	619	591	630	2%
Imperial	843	881	826	-2%
Kern	1,566	1,420	1,266	-19%
Lake Tahoe	133	131	152	14%
Lassen	178	210	213	20%
Long Beach	702	647	637	-9%
Los Angeles	6,746	6,756	7,557	12%
Los Rios	5,059	4,648	4,526	-11%
Marin	277	238	244	-12%
Mendocino	265	243	232	-12%
Merced	630	566	632	0%
MiraCosta	1,185	1,099	1,288	9%
Monterey	412	391	294	-29%
Mt. San Antonio	1,704	1,757	1,792	5%

District	Associate Degrees Granted			Change Between 2013-14 & 2015-16
	2013-14	2014-15	2015-16	
Mt. San Jacinto	1,538	1,541	1,624	6%
Napa	571	505	573	0%
North Orange	1,964	1,881	1,961	0%
Ohlone	667	786	741	11%
Palo Verde	104	147	145	39%
Palomar	1,887	1,727	1,734	-8%
Pasadena	2,135	2,592	3,182	49%
Peralta	1,171	1,092	1,235	5%
Rancho Santiago	2,781	2,888	3,016	8%
Redwoods	389	445	632	62%
Rio Hondo	907	865	824	-9%
Riverside	2,749	2,810	3,061	11%
San Bernardino	1,317	1,296	1,314	0%
San Diego	1,711	1,992	1,899	11%
San Francisco	1,909	1,507	1,297	-32%
San Joaquin Delta	2,472	2,210	2,238	-9%
San Jose	1,026	950	878	-14%
San Luis Obispo	691	648	616	-11%
San Mateo	1,516	1,445	1,291	-15%
Santa Barbara	1,763	1,860	2,019	15%
Santa Clarita	1,174	1,068	1,109	-6%
Santa Monica	1,324	1,935	2,863	116%
Sequoias	1,026	1,023	1,045	2%
Shasta Tehama	656	585	587	-11%
Sierra	2,115	2,046	1,988	-6%
Siskiyou	162	165	178	10%
Solano	1,379	1,317	1,260	-9%
Sonoma	1,557	1,492	1,583	2%
South Orange County	1,603	1,590	1,644	3%
Southwestern	891	896	1,064	19%
State Center	1,607	1,496	1,313	-18%
Ventura	2,406	2,403	2,830	18%
Victor Valley	947	857	938	-1%
West Hills	702	697	742	6%
West Kern	326	312	302	-7%
West Valley	1,100	939	888	-19%
Yosemite	1,447	1,437	1,363	-6%
Yuba	825	921	955	16%
Statewide Total	95,734	95,081	99,559	4%

**Table 2.2: Students Completing Associate Degrees for Transfer
2013-14 to 2015-16**

District	Associate Degrees for Transfer			Change Between 2013-14 & 2015-16
	2013-14	2014-15	2015-16	
Allan Hancock	51	140	194	280%
Antelope	27	107	319	1081%
Barstow	6	10	20	233%
Butte	63	179	263	317%
Cabrillo	26	167	224	762%
Cerritos	137	347	546	299%
Chabot-Las Positas	133	185	264	98%
Chaffey	210	402	556	165%
Citrus	399	500	703	76%
Coast	544	984	1,253	130%
Compton	0	0	0	
Contra Costa	556	798	1,143	106%
Copper Mountain	6	27	63	950%
Desert	148	304	353	139%
El Camino	123	177	301	145%
Feather River	5	12	26	420%
Foothill	173	397	768	344%
Gavilan	63	58	149	137%
Glendale	37	212	395	968%
Grossmont	362	590	729	101%
Hartnell	128	193	351	174%
Imperial	115	249	324	182%
Kern	35	296	555	1486%
Lake Tahoe	27	38	53	96%
Lassen	14	28	22	57%
Long Beach	330	463	576	75%
Los Angeles	291	645	1,531	426%
Los Rios	516	861	1,327	157%
Marin	33	62	96	191%
Mendocino	47	74	78	66%
Merced	190	252	390	105%
MiraCosta	134	152	243	81%
Monterey	68	175	184	171%
Mt. San Antonio	235	330	427	82%
Mt. San Jacinto	68	179	266	291%
Napa	29	75	149	414%
North Orange	638	886	1,117	75%

	Associate Degrees for Transfer			Change Between 2013-14 & 2015-16
Ohlone	47	153	206	338%
Palo Verde	0	1	0	
Palomar	94	165	211	124%
Pasadena	435	557	800	84%
Peralta	72	202	337	368%
Rancho Santiago	389	605	989	154%
Redwoods	0	0	0	
Rio Hondo	85	298	470	453%
Riverside	106	183	343	224%
San Bernardino	174	305	379	118%
San Diego	482	1,056	1,008	109%
San Francisco	122	199	264	116%
San Joaquin Delta	53	86	174	228%
San Jose	83	177	342	312%
San Luis Obispo	145	321	442	205%
San Mateo	274	485	669	144%
Santa Barbara	0	0	437	
Santa Clarita	180	291	509	183%
Santa Monica	110	287	499	354%
Sequoias	63	99	161	156%
Shasta Tehama	61	141	135	121%
Sierra	333	498	619	86%
Siskiyou	2	9	11	450%
Solano	17	39	157	824%
Sonoma	335	430	614	83%
South Orange County	362	699	964	166%
Southwestern	171	407	611	257%
State Center	305	569	1,143	275%
Ventura	683	1,093	1,514	122%
Victor Valley	29	43	94	224%
West Hills	16	26	119	644%
West Kern	11	28	62	464%
West Valley	290	423	578	99%
Yosemite	73	270	447	512%
Yuba	10	61	110	1000%
Statewide Total	11,579	20,760	31,376	171%

**Table 2.3 Percentage of Students Completing Transfer Level English in the First Year of Enrollment
2013-14 to 2015-16**

	Cohort Year 2013-14	Cohort Year 2014-15	Cohort Year 2015-16	
	% Completing Transfer Level English - 1st Year	% Completing Transfer Level English - 1st Year	% Completing Transfer Level English - 1st Year	Change from 2013-14 to 2015-16
Allan Hancock CCD	31.5%	35.0%	42.5%	11.0%
Antelope CCD	38.0%	37.4%	40.6%	2.6%
Barstow CCD	0.3%	0.3%	22.1%	21.8%
Butte CCD	51.8%	52.3%	53.9%	2.1%
Cabrillo CCD	50.2%	48.1%	51.3%	1.1%
Cerritos CCD	26.0%	25.3%	33.0%	7.0%
Chabot-Las Positas CCD	40.7%	43.7%	50.1%	9.4%
Chaffey CCD	22.7%	23.8%	36.4%	13.7%
Citrus CCD	27.4%	28.7%	37.3%	9.9%
Coast CCD	45.7%	49.6%	53.6%	7.9%
Compton CCD	27.8%	25.1%	26.4%	-1.4%
Contra Costa CCD	31.3%	33.8%	33.0%	1.7%
Copper Mountain	27.6%	30.5%	34.6%	7.0%
Desert CCD	35.5%	33.3%	39.5%	4.0%
El Camino CCD	45.9%	46.6%	45.9%	0.0%
Feather River CCD	44.4%	49.5%	53.5%	9.1%
Foothill CCD	47.8%	51.2%	54.0%	6.2%
Gavilan CCD	37.7%	38.2%	41.9%	4.2%
Glendale CCD	44.7%	50.4%	53.1%	8.4%
Grossmont CCD	24.2%	33.7%	36.3%	12.1%
Hartnell CCD	29.5%	32.9%	34.9%	5.4%
Imperial CCD	16.4%	23.4%	23.3%	6.9%
Kern CCD	22.0%	24.6%	27.2%	5.2%
Lake Tahoe CCD	62.5%	55.8%	54.3%	-8.2%
Lassen CCD	44.9%	50.5%	59.2%	14.3%
Long Beach CCD	31.2%	35.0%	34.0%	2.8%
Los Angeles CCD	22.5%	25.6%	28.9%	6.4%
Los Rios CCD	34.3%	36.2%	38.5%	4.2%
Marin CCD	35.2%	37.4%	43.4%	8.2%
Mendocino CCD	33.2%	38.0%	33.2%	0.0%
Merced CCD	22.6%	25.4%	30.8%	8.2%
MiraCosta CCD	56.6%	57.4%	61.8%	5.2%
Monterey CCD	35.3%	35.9%	44.0%	8.7%
Mt. San Antonio CCD	20.1%	27.7%	31.2%	11.1%
Mt. San Jacinto CCD	21.5%	25.1%	33.9%	12.4%
Napa CCD	19.9%	25.4%	35.5%	15.6%
North Orange CCD	36.1%	39.4%	42.2%	6.1%
Ohlone CCD	41.6%	44.5%	45.6%	4.0%

	Cohort Year 2013-14	Cohort Year 2014-15	Cohort Year 2015-16	
	% Completing Transfer Level English - 1st Year	% Completing Transfer Level English - 1st Year	% Completing Transfer Level English - 1st Year	Change from 2013-14 to 2015-16
Palo Verde CCD	15.7%	25.9%	14.9%	-0.8%
Palomar CCD	38.3%	38.8%	39.2%	0.9%
Pasadena CCD	36.4%	43.3%	46.4%	10.0%
Peralta CCD	42.4%	43.1%	43.5%	1.1%
Rancho Santiago CCD	46.5%	48.2%	52.2%	5.7%
Redwoods CCD	29.9%	31.5%	40.3%	10.4%
Rio Hondo CCD	36.9%	34.9%	37.4%	0.5%
Riverside CCD	23.1%	25.9%	30.3%	7.2%
San Bernardino CCD	21.1%	21.5%	24.8%	3.7%
San Diego CCD	27.5%	30.7%	40.1%	12.6%
San Francisco CCD	22.1%	22.5%	24.5%	2.4%
San Joaquin Delta CCD	43.3%	40.5%	39.6%	-3.7%
San Jose CCD	28.5%	32.5%	32.3%	3.8%
San Luis Obispo CCD	60.2%	56.8%	57.6%	-2.6%
San Mateo CCD	41.3%	45.8%	51.3%	10.0%
Santa Barbara CCD	62.3%	53.1%	56.7%	-5.6%
Santa Clarita CCD	37.9%	41.6%	53.7%	15.8%
Santa Monica CCD	43.4%	45.3%	49.1%	5.7%
Sequoias CCD	34.4%	39.2%	36.1%	1.7%
Shasta Tehama CCD	49.6%	47.7%	50.8%	1.2%
Sierra CCD	47.8%	54.8%	58.1%	10.3%
Siskiyou CCD	34.0%	49.7%	50.2%	16.2%
Solano CCD	43.8%	41.2%	46.6%	2.8%
Sonoma CCD	43.7%	47.0%	52.3%	8.6%
South Orange County CCD	43.9%	41.8%	44.8%	0.9%
Southwestern CCD	66.7%	68.0%	70.7%	4.0%
State Center CCD	25.4%	28.2%	30.7%	5.3%
Ventura CCD	51.6%	53.3%	56.5%	4.9%
Victor Valley CCD	27.9%	30.5%	31.7%	3.8%
West Hills CCD	35.7%	38.9%	42.6%	6.9%
West Kern CCD	31.4%	42.9%	41.0%	9.6%
West Valley CCD	53.8%	56.7%	57.2%	3.4%
Yosemite CCD	39.9%	35.1%	34.2%	-5.7%
Yuba CCD	33.3%	32.2%	34.7%	1.4%
	35.7%	37.8%	41.2%	5.5%

**Table 2.4 Percentage of Students Completing Transfer Level Mathematics in the First Year of Enrollment
2013-14 to 2015-16**

	Cohort Year 2013-14	Cohort Year 2014-15	Cohort Year 2015-16	
	% Completing Transfer Level Math - 1st Year	% Completing Transfer Level Math - 1st Year	% Completing Transfer Level Math - 1st Year	Change from 2013-14 to 2015-16
Allan Hancock CCD	15.3%	17.1%	20.2%	4.9%
Antelope CCD	10.4%	10.2%	13.0%	2.6%
Barstow CCD	0.0%	0.0%	11.3%	11.3%
Butte CCD	16.1%	20.6%	20.7%	4.6%
Cabrillo CCD	18.2%	18.6%	20.3%	2.1%
Cerritos CCD	6.1%	6.3%	6.6%	0.5%
Chabot-Las Positas CCD	18.5%	20.8%	23.2%	4.7%
Chaffey CCD	9.0%	10.7%	12.1%	3.1%
Citrus CCD	10.8%	10.2%	14.6%	3.8%
Coast CCD	24.7%	26.7%	28.7%	4.0%
Compton CCD	4.5%	5.3%	6.4%	1.9%
Contra Costa CCD	26.4%	28.5%	29.8%	3.4%
Copper Mountain	13.3%	13.4%	17.6%	4.3%
Desert CCD	6.8%	6.2%	5.3%	-1.5%
El Camino CCD	12.9%	16.7%	16.9%	4.0%
Feather River CCD	19.1%	26.1%	23.0%	3.9%
Foothill CCD	39.0%	38.8%	39.3%	0.3%
Gavilan CCD	11.0%	9.8%	13.1%	2.1%
Glendale CCD	15.0%	19.3%	19.5%	4.5%
Grossmont CCD	21.8%	19.7%	24.8%	3.0%
Hartnell CCD	13.9%	18.6%	20.3%	6.4%
Imperial CCD	10.5%	10.2%	10.9%	0.4%
Kern CCD	10.0%	11.1%	10.8%	0.8%
Lake Tahoe CCD	13.2%	8.0%	13.0%	-0.2%
Lassen CCD	4.3%	11.2%	7.5%	3.2%
Long Beach CCD	12.6%	13.5%	13.6%	1.0%
Los Angeles CCD	8.0%	8.3%	8.8%	0.8%
Los Rios CCD	14.3%	15.2%	14.8%	0.5%
Marin CCD	17.7%	17.4%	19.7%	2.0%
Mendocino CCD	13.5%	15.7%	20.2%	6.7%
Merced CCD	12.4%	14.0%	14.1%	1.7%
MiraCosta CCD	21.3%	17.8%	21.4%	0.1%
Monterey CCD	12.4%	14.4%	18.5%	6.1%
Mt. San Antonio CCD	11.6%	12.6%	15.3%	3.7%
Mt. San Jacinto CCD	12.1%	18.3%	17.9%	5.8%
Napa CCD	22.3%	24.2%	25.4%	3.1%

North Orange CCD	19.7%	21.2%	22.4%	2.7%
Ohlone CCD	24.1%	29.8%	29.8%	5.7%
Palo Verde CCD	5.7%	1.8%	5.0%	-0.7%
Palomar CCD	15.7%	15.7%	15.3%	-0.4%
Pasadena CCD	18.4%	20.9%	22.6%	4.2%
Peralta CCD	21.9%	25.7%	26.6%	4.7%
Rancho Santiago CCD	24.8%	23.5%	25.8%	1.0%
Redwoods CCD	13.4%	14.2%	14.3%	0.9%
Rio Hondo CCD	5.0%	3.2%	4.7%	-0.3%
Riverside CCD	10.0%	12.2%	11.4%	1.4%
San Bernardino CCD	10.9%	12.6%	13.0%	2.1%
San Diego CCD	19.9%	22.0%	23.8%	3.9%
San Francisco CCD	28.8%	28.4%	30.8%	2.0%
San Joaquin Delta CCD	9.7%	10.2%	9.8%	0.1%
San Jose CCD	22.2%	23.2%	25.0%	2.8%
San Luis Obispo CCD	24.1%	23.1%	25.0%	0.9%
San Mateo CCD	25.4%	24.4%	28.7%	3.3%
Santa Barbara CCD	25.6%	23.5%	25.9%	0.3%
Santa Clarita CCD	14.1%	16.1%	17.6%	3.5%
Santa Monica CCD	12.7%	14.9%	15.9%	3.2%
Sequoias CCD	13.7%	14.7%	12.5%	-1.2%
Shasta Tehama CCD	20.0%	18.3%	16.0%	-4.0%
Sierra CCD	21.0%	24.1%	25.1%	4.1%
Siskiyou CCD	9.7%	12.8%	15.1%	5.4%
Solano CCD	21.0%	22.3%	25.7%	4.7%
Sonoma CCD	18.8%	19.7%	17.7%	-1.1%
South Orange County CCD	23.9%	28.5%	31.5%	7.6%
Southwestern CCD	5.3%	5.4%	5.5%	0.2%
State Center CCD	12.9%	14.4%	17.1%	4.2%
Ventura CCD	22.8%	21.1%	24.0%	1.2%
Victor Valley CCD	4.7%	5.8%	8.5%	3.8%
West Hills CCD	10.8%	14.0%	12.9%	2.1%
West Kern CCD	8.3%	9.7%	11.2%	2.9%
West Valley CCD	26.6%	25.7%	27.0%	0.4%
Yosemite CCD	4.2%	4.2%	5.6%	1.4%
Yuba CCD	10.1%	9.7%	11.1%	1.0%
	16.0%	17.0%	18.4%	2.4%

Appendix C

RACI Matrix

A Responsible, Accountable, Consulted, and Informed (RACI) Matrix describes general roles and responsibilities of those involved in a specific process, such as MIS submissions. A RACI Matrix is useful in helping to set expectations for who is responsible for tasks, who is accountable for the work, who is consulted in the process, and who is kept informed about the task. If created correctly, a RACI Matrix helps members of an organization see where they need to be involved, and with which tasks. A RACI Matrix can also help eliminate confusion by knowing who is ultimately accountable for a task completion. It is particularly useful to set expectations with more senior stakeholders who are informed on the project; it will allow them to know what information they will receive and the steps involved.

Table 1: Definitions of Responsible, Accountable, Consulted, and Informed (RACI)

Role	Role Code	Definition
Responsible	R	This role completes the actual work and owns the problem; this role is the “doer.” There can be multiple R’s.
Accountable	A	This role approves the completed work and is held accountable for it. There should only be one A.
Consulted	C	This role has information and/or capability to complete the work. There will be two-way communication between those responsible and those consulted. There can be multiple C’s.
Informed	I	This role is informed of progress and results. This role receives one-way communication, usually from the R. This role is not involved in completing the work. There can be multiple I’s.

Instructions for Definitions of Roles for MIS Submissions

In the table below, list each role in the Roles column and enter the job title and a brief description of the responsibilities of that position in the Definition column. The description is high level, with more specific details about the step(s) that person completes in the MIS submission in the RACI Matrix.

Table 2: Definitions of Roles for MIS Submissions

Roles	Definition

Instructions for Completing the RACI Matrix for MIS Submissions

In the table below, list each step in the MIS submission in the left-hand column. In the remaining cells of the header row, insert the roles included in Table 2: Definitions of Roles for MIS Submissions. For example, if one role in Table 2 was Dean of Enrollment Services, one of the columns included in Table 3 would be headed as Dean of Enrollment Services. Insert an R and A for each step and include a C and/or I if applicable. Remember for each row, there must be an A. There may be more than one R, but try to limit the number of Rs so that completing the task does not get too complex.

Table 3: RACI Matrix for MIS Submission

Steps Involved in MIS Submission	Roles				

Appendix D

Data Governance Checklist

The U.S. Department of Education's Privacy Technical Assistance Center (PTAC) has developed a Data Governance Checklist designed to assist stakeholder organizations with establishing and maintaining a successful data governance program. Data governance can be defined as an organizational approach to data and information management that is formalized as a set of policies and procedures that encompass the full life cycle of data, from acquisition to use to disposal. This includes establishing decision-making authority, policies, procedures, and standards regarding data security and privacy protection, data inventories, content and records management, data quality control, data access, data security and risk management, data sharing and dissemination, as well as ongoing compliance monitoring. Although developed for K-12 education, the Data Governance Checklist contains many best practices applicable to higher education data governance. To download the checklist, visit <https://studentprivacy.ed.gov/resources/checklist-data-governance>.

Readers interested in using the checklist should download it from the link above in case PTAC has made updates since the publication of this report.

Appendix E

Post Submission Analysis

The purpose of a post submission analysis is to improve data quality and processes by reviewing what worked well and the challenges encountered during the data submission, and identifying action items to address the challenges and improve data quality and processes.

If a district has a team responsible for the MIS submission or a portion of the submission, the analysis can be done via a team meeting so that different perspectives can be gathered and analyzed. Then, the group can identify priorities. If each task is primarily done by one person, a post submission analysis can be done by that person reviewing the prompts below and documenting changes to be made in the next submission.

Process for Post Submission Analysis

1. Before the meeting send participants the purpose, time and place for the meeting. Ask participants to gather their thoughts and notes on experiences during the submission and bring to the meeting what they thought worked well and the pain point(s) during the submission.
2. Begin the meeting by reviewing the purpose of the meeting and the agenda.
3. Review what went well and document responses.
4. Brainstorm without judgment or discuss problems encountered that need to be addressed – focus on the problems and issues, not the solutions.
5. Brainstorm possible solutions to each pain point. These need to be concrete, doable actions.
6. Review results of brainstorming and come to consensus on specific actions that can be taken to address the challenges identified:
 - Determine what actions need to be sent to the leadership team for discussion/ approval and what can be implemented immediately
 - Prioritize and assign actions to individuals
 - Review and document action items and agreements
7. Close the meeting by debriefing on the meeting, including what worked and what might need to be improved in terms of the debrief process and group interactions for the next debrief. If time permits, review any unresolved items or review the list and agree where items should be referred.
8. Document agreements and share with attendees so that the individuals can be held accountable for assigned follow-up action items.