



California  
Community  
Colleges

# Case for Change: California Community Colleges Common ERP

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***“Every student in our state deserves the same level of protection, the same level of service, the same quality of experience, the same ease of access to opportunity that every other student in the state has.”***

**-CCC Stakeholder**

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# Case For Change: California Community Colleges Common ERP

## Abstract

In response to the roadmap between the Governor, his administration, and the California Community Colleges (the “Colleges” or the “System”) in addition to the Governor’s commitment to developing a phased approach to implement a common statewide system, the California Community Colleges Chancellor’s Office (the “Chancellor’s Office”) is building upon past efforts to develop the case for such a system. In doing so, the Chancellor’s Office recognizes the importance of engaging stakeholders from across the system, almost all of whom will be impacted by this type of change.

The Chancellor’s Office partnered with Accenture to understand the current challenges that the system and its colleges, faculty, staff, and students face with existing Enterprise Resource Planning (ERP) systems. Moving towards a common ERP would mitigate the current challenges, enable new capabilities, increase transparency, and build trust.

Interviews with stakeholders across the 116 colleges and 73 districts were conducted to help understand the opportunities of transitioning from their existing ERP systems to a common ERP across the California Community Colleges as it relates to student information, administrative services such as Finance and HR, and data collection and reporting. The purpose of the engagement was to provide a voice to and showcase the experiences of the students, staff, and faculty that are a part of the entire System, and to capture the diversity of the Colleges within their local contexts.

This report explores the case for California Community Colleges to modernize and unify its ERP technology to build institutional resiliency, provide a uniform experience and equitably support all students statewide in reaching their learning goals. A common ERP may help provide systemwide solutions to many critical challenges that the system currently faces and create a far better experience for students, faculty, and staff. This case for change is rooted in careful engagement with the system’s stakeholders and in-depth experience of the team who have worked with higher education and public sector clients.

This report is not designed to include evaluations or recommendations of technology vendors, nor does it seek to provide implementation costs or timeline. It represents an initial phase of work focused on documenting the needs and challenges the system is currently facing and what might be possible through a common systemwide ERP platform. Ongoing systemwide engagement with larger groups of stakeholders will continue as these efforts progress.

## Background

The Chancellor's Office is in the process of understanding the need of a solution or platform to support the system's collective data, information security, and information infrastructure needs and to help reduce the local administrative burden on students, faculty, and staff at the colleges.

The Chancellor's Office has partnered with Accenture to understand the current challenges and opportunities for key areas of the System as they relate to a common ERP.

### ERP, SIS, and common ERP definitions

Below are the working definitions used throughout the project for ERP, higher education Student Information System (SIS), and common ERP.

#### ERP Definition

ERP (Enterprise Resource Planning) systems are used across various industries and according to Gartner, is defined as “the ability to deliver an integrated suite of business applications. ERP tools share a common process and data model, covering broad and deep operational end-to-end processes, such as those found in finance, HR, distribution, manufacturing, service, and the supply chain” (*Gartner, n.d.a*).

Core functionality of a typical government ERP system includes:

- “Accounting and finance management: general ledger, budget planning and management, accounts payable, accounts receivable, payments, annual reporting, investment planning and capital management, revenue forecasting.”
- “Human capital management: recruitment, onboarding, benefits administration, scheduling, time, and attendance, payroll, and performance management.”
- “Procurement: Contract Management, Vendor Management, E-Catalog, Vendor Registration, Procure or Source to Pay, Bid Locker/RFP Notification” (*Mendonsa, 2022*).

#### SIS Definition

According to Gartner, a SIS is defined as “the core system of record for institutions of higher education. It supports and delivers services daily for a variety of routine administrative and academic activities. An SIS supports a broad spectrum of back-office administrator and student/faculty-facing functionality to manage key institutional information assets such as student prospects, applicants and matriculates, courses offered, student course registrations, and grades and transcripts. The current market offerings vary in size, scope, country localizations, functional capability, and delivery options (SaaS/cloud, hosted or on premises). They range from individual components to

enterprise-wide integrated solutions or sometimes are part of a larger administrative ERP application suite” (Gartner, n.d.b).

Core functionality of a Higher Education SIS typically includes:

- “Academic activity: course catalog, course registration, and attendance.”
- “Advising interactions: Degree audit, operational reporting, enrollment management, and academic advising and planning.”
- “Business transactions: financial aid, student accounts receivable, and student recruitment.”
- “Education outcomes: admissions, grades and academic record, and degree audit” (Yanckello & Farrell, 2022).

### **Definition of a Common ERP**

When an ERP system is managed centrally and incorporates consolidated business data and organization processes, it is considered a “common ERP” solution. It can be a single platform, several platforms, or systems working in tandem which share a common system of record for the collection of data.

In the context of California Community Colleges, a common ERP is a technology solution that is centrally managed and potentially encompasses ERP and SIS functionality, which may include student information, human capital management (HR), and finance and accounting management that would unify the colleges through the same system(s), processes, and data architecture. Currently, the ERP systems (human capital management/HR and finance) and Student Information System (SIS) across the system’s colleges are all locally managed at the college or district level and are distinct and separate from ERP and SIS systems at other colleges, leading to divergent experiences and qualities.

### **External ERP and SIS landscape**

ERP system vendors in the government market with on-premises, private cloud, and SaaS offerings include, but are not limited to the following alphabetized list:

- Microsoft
- Oracle
- SAP
- Unit4
- Workday

SIS vendors in the higher education market with on-premises, private cloud, and SaaS offerings include, but are not limited to the following alphabetized list:


- Anthology
- Ellucian

- Jenzabar
- Oracle

There are four main ways that an ERP/SIS system can be hosted and managed:

- **On-premises:** Software is licensed, and the full instance of the software resides within the customer’s premises.
- **Private cloud:** Software is hosted by the vendor and provided to a single customer, but the resources and infrastructure of the private cloud may be based on those that were original to the customer’s on-premises solution.
- **Multi-tenant cloud (SaaS):** Several customers (tenants) share a single SaaS solution, with access to the same resources and infrastructure (e.g., security system), but with each customer’s data remaining separate.
- **Single-tenant cloud (SaaS):** A single SaaS solution and its resources and infrastructure are provided to one customer (tenant). Each customer has his or her own database(s) and instance of the SaaS.

**Figure 1** compares multi-tenant SaaS, single-tenant SaaS, private cloud, and on-premises versions in terms of implementation, extensibility/standardization, governance, upgrade cycle, deployment benefits, licensing, infrastructure, and security considerations.



Offering Attributes	SaaS Cloud		Private Cloud	On-Premise
	Multi-tenant Cloud	Single-tenant Cloud	Private Cloud hosted by vendor	On-premise managed by customer
<b>Implementation</b>	Clean slate with limited data migration	Clean slate with data and configuration migration	Clean slate or conversion of existing implementations	Clean slate or conversion of existing implementations
<b>Extensibility/Standardization</b>	Standardized, cannot be extended/customized	Limited configuration and support for additional regions, but standardization recommended	Customization, modification, and extensibility possible	Highest flexibility for customization, modification, and extensibility
<b>Governance</b>	Vendor-led	Vendor-led or customer-influenced	Customer-influenced	Customer-led
<b>Upgrade Cycle</b>	Quarterly	2 upgrades a year, one mandatory within 12-month window of release	Annual; speed of adoption on customers' schedule	Annual; speed of adoption on customers' schedule
<b>Deployment Benefits</b>	Multi-tenant environment, lowest total cost of ownership and fastest time to value	Single-tenant environment, low total cost of ownership and fast time to value	Customer controlled deployment and implementation efforts	Customer controlled deployment and implementation efforts
<b>Licensing</b>	Subscription licensing	Subscription licensing	Bring Your Own License + infrastructure subscription	Perpetual licensing
<b>Infrastructure</b>	Shared public cloud	Dedicated system landscape on vendor cloud infrastructure	Customer specific system landscape	Runs on customer preferred infrastructure
<b>Security</b>	Vendor owns security and manages risks, if one tenant experiences a breach, all tenants at risk	Vendor owns security and manages risks, customer data is siloed from other customers	Vendor owns security and manages risks, customer data is siloed from other customers	Customer owns security and manages risks

Figure 1. Comparison of SaaS, Private Cloud, and On-Premises

Both multi-tenant and single-tenant cloud solutions can be broken out into a single instance or multi-instances. An instance refers to a self-contained copy of a specific product, or in this case, an installation of an ERP application. **Table 1** compares the benefits of single and multi-instance ERPs.

<b>Single-instance benefits:</b>	<b>Multi-instance benefits:</b>
Access to a single solution for all the organization's operations	Access to one or many copies of a product
Centralized control	Administrative autonomy
Common data	Data isolation
Standardized	Each instance is customizable
Without additional deployment environments, lower maintenance and upkeep costs	Ability to control user access for each instance, which affects the costs

*Table 1. Single vs. Multi-Instance Benefits*

As the Colleges aims to transition towards a common ERP, considerations will need to be made about how the solution will be managed and hosted.

## Historical context

### Current Colleges ERP landscape

Across the 116 colleges, there are currently three major ERP systems in use. The share of the ERP systems across colleges are:

- 38% of colleges using Colleague
- 36% using Banner
- 22% using PeopleSoft
- 4% are on home-grown systems

In our analysis of the 66 colleges represented in the stakeholder interviews, we found that while there are only a select number of different ERP systems/vendors being utilized across the state, the technology landscape across the System varied from college to college in terms of:

- Number of colleges currently going through a transition, upgrade, or integration with their current ERP.
- The number of colleges currently on the latest version available of their ERP software or who are behind in upgrading their systems.
- The number of colleges who are still on-premises or who have moved to the cloud.

Responses gathered from stakeholder interviews revealed that while individual colleges may have implemented the same software as others throughout the system, they are at different stages of customizations: transitioning their systems, upgrading their systems, or moving their systems to the cloud.



## **System-wide California Community College initiatives to date**

This would not be the first time that the California Community Colleges have embarked on a system-wide centralization effort. The colleges have experienced several centralization efforts to date, with the most recent or ongoing system-wide efforts being:

- A common Learning Management System (LMS), Canvas.
- A common Library Services Platform (LSP), Ex Libris.
- An ongoing adoption of common course numbering across the colleges, C-ID.

A common ERP implementation is a much larger undertaking in terms of scope of functionality than the current system-wide initiatives to date. Research into the common reasons for adoption, the value gained, and the successes and lessons learned from the implementations across these three efforts will inform the common ERP implementation process and support its success.

Across the system's history of system-wide initiatives, the need to address and overcome frequently encountered challenges resulted in the decision to adopt a centralized, system-wide solution. The most frequent challenges that led to the need for a common LMS and LSP solution were:

- Colleges were using several different LMS platforms.
- Many of these platforms were outdated and inadequate for the current digital environment.
- There was little to no sharing of knowledge or resources across the system due to the variance in platforms and procedures.
- Since the platforms varied to such degree, so did the student experience, where the mental load for transitory students to navigate multiple platforms was burdensome.

In the current California Community College's ERP landscape, colleges are facing many of the same core problems. The current ERPs are disparate, outdated, and highly customized platforms that:

- Make it burdensome for students to navigate multiple systems.
- Limit sharing of best practices for faculty, staff, and IT talent.
- Increase the variability of experiences for students moving throughout the system.

In moving to common, system-wide solutions (i.e., Canvas and Ex Libris), the colleges have experienced many benefits from each implementation. The collective benefits that came from implementing a common LMS, a common LSP, and a common course numbering system include:

- Increased system-wide collaboration and best-practices, eliminating duplicate work.

- Increased mobility for students and improved equitable transfer for student success.
- Cost savings of an estimated “\$10 million to date for the System through the usage of a common LMS” and a “projected savings of \$8.5 million from 2019-2024 from moving to a common LSP”
  - *(California Virtual Campus – Online Education Initiative [CVC-OEI], 2022)*
  - *(Council of California Community Colleges Chief Librarians, n.d.)*

Moving to a common ERP could prove to have many of the same benefits such as increased bandwidth and cost savings, increased collaboration, and an equitable, consistent experience for students as they move throughout the California Community College system.

Examining the successes and lessons learned from past system-wide efforts can be used to inform the common ERP implementation process. A key success factor of the adoption of the common LMS was positioning it as pathways to improve collaboration in online education *(CVC-OEI, 2022)*. Lessons learned that were shared across the common LMS, common LSP, and C-ID initiatives include engaging stakeholders to ensure a shared vision, establishing pilot programs, conducting roadshows, incentivizing individual colleges with state funding, and developing policies and procedures for ongoing operation of the project and methodology.

### Stakeholder engagement approach

To capture the full spectrum of stakeholder voices of the California Community College system, students, staff, and faculty were engaged through representative stakeholder groups during the interview process. Accenture worked with the Chancellor’s Office of Innovation, Data, Evidence, and Analytics and the Division of Digital Innovation and Infrastructure to identify key stakeholder groups selected to systematically represent the system’s experiences and needs.

Over the course of two months, interviews were conducted with 67 participants, identified from 11 different stakeholder groups, and representing more than half of the system’s colleges. The opportunities identified were recurring themes in the stakeholder synthesis and were drawn across stakeholder groups, district type (multi or single), and college contexts (region, urban, suburban, or rural, and/or small, medium, large).

Key Stakeholder Groups	Represented Role
Academic Senate for California Community Colleges (ASCCC)	Faculty Leadership
Association of Chief Budget Officers (ACBO)	Chief Budget Officers (CBO)

Association of Chief Human Resource Officers/ Equal Employment Officers (ACHRO/EEO)	Chief Human Resource Officers (CHRO)
California Community College Chief Instructional Officers (CCCCIO)	Chief Instructional Officers (CIO)
California Community College Cohort Information Systems/California Community Colleague User Group (4CIS/4CUG)	Chief Information System Officers (CISO)
California Community Colleges Student Financial Aid Administrators Association (CCCSFAAA)	Financial Aid Officers
Chief Executive Officers of the California Community Colleges (CEOCCC)	Presidents/Superintendents
Chief Information Systems Officers/Systemwide Architect Committee (CISOA/SAC)	Chief Information System Officers (CISO)
Chief Student Services Officers Association (CSSO)	Chief Student Services Officers
Institutional Research, Planning, and Effectiveness/Research and Planning Group for California Community Colleges (IRPE/RP Group)	Institutional Researchers/Institutional Effectiveness
Student Senate for California Community Colleges (SSCCC)	Student Leadership

*Table 2. Key Stakeholder Groups*

Interviews were conducted with 67 participants, with at least four from each stakeholder group, who represented 57% of the California Community Colleges.

Additional information on the breakdown of stakeholders engaged can be found in Appendix A Stakeholder Engagement Breakdown. Appendix B Stakeholder Insights provides the key takeaways gathered from the interviews for each stakeholder group.

## Case for Change

Stakeholders are facing **five significant challenges** as it relates to their existing ERP systems outlined in **Figure 2**.



1.  Disparate processes, procedures, and systems lead to **manually intensive work**, significantly **hindering** the colleges' **ability to focus on strategic activities**
2.  **Inconsistent** management of data and **inaccurate** reporting limit our **ability to serve students and faculty**
3.  Current landscape **exacerbates** existing **hiring and retention challenges** for IT staff.
4.  Students, faculty, and staff face **inequitable experiences related to technology**, **reduces institutional mobility, limits visibility** into data, **hinders communities of practice**, and **increases barriers** to success
5.  **Slow adoption of modern technology** systemwide contributes to **security vulnerabilities** for students, faculty, staff, and institutions, impacting continuity of delivery of education and services.

Figure 2. Key Challenges with Current ERPs

The process of adopting a common ERP for the California Community Colleges will enable the colleges to reap the benefits of moving to a common ERP (e.g., increased transparency, equal access, automated capabilities, etc.)

The following sections explore the five challenges:

## 1. Disparate processes, procedures, and systems lead to manually intensive work, significantly hindering the colleges' ability to focus on strategic activities

Disparate technology and processes create a sense of disjunction across the system. Each college, particularly the larger colleges, operates almost as its own entity. Information is collected, compiled, analyzed, and reported in nearly 73 different ways, which makes sharing information and resources among the colleges nearly impossible.

Many colleges are still using ERPs adopted in the late 1990s and early 2000s, which have significantly limited functionality (e.g., supporting enrollment waitlists, supporting net disbursements, outdated UI, etc.) Additionally, these older systems pose maintenance challenges and limit staff's ability to properly make upgrades. The effort required to maintain the older systems is burdensome on staff; maintaining a colleges ERP can take up to 80% of staff's time. To account for the lack of functionality (e.g., interoperability among colleges, real-time reporting and analytics, rollover data capabilities, security instances, etc.), faculty and staff must use time-consuming manual processes to accomplish their tasks. While ERP technology in the market and in higher education has improved and become more modernized, California Community College's legacy ERP systems force staff to revert to the manual processes that a modern ERP would make more efficient.

*"If I can free folks up from worrying about [ERP system] maintenance, it would be a huge win."*

-CCC Stakeholder

Many stakeholders shared their ERP is missing functionality or modules that would make their job easier, and the lack of connection to other colleges means they cannot collaborate with other colleagues. The time and effort required to complete manual processes (e.g., inputting information, data entry, tracking and reporting, etc.) means that staff have less time to support student needs. Certain colleges use Excel to manage student information, such as eligibility for basic needs programs, because the current ERP does not have functionality to support tracking of this kind of information. These shadow systems and type of tracking carries the risk of human error impacting the accuracy of data being inputted and reported.

Since ERP technology is different across colleges, staff are missing out on an opportunity to share information effectively. As students look to multiple colleges to accomplish their academic goals, their information generally does not transfer seamlessly from one college to another, forcing them to re-submit data for each new location.

### **Potential Value enabled by a common ERP**

The process of adopting a common ERP across the colleges would allow them to become more connected and part of the same system. A common ERP could automate manual processes, connect systems internally and externally, and allow for integrations of supplementary third-party platforms. Using the same system enables the user community to share best practices, troubleshoot challenges, and collaborate more effectively across colleges. A common ERP can also streamline information and data sharing, (*Bhamangol et al., 2020*), standardize support, and relieve local IT staff from the burden of ERP management. Reducing customizations and having a centralized support team relieves local IT staff from the burden of ERP management and allowing them to reprioritize their time and effort.

Finally, an investment and adoption of a common ERP signals to prospective students, faculty, staff, and partners that the California Community Colleges are investing in robust 21<sup>st</sup> Century education and technology systems that build resiliency, provide a uniform experience, and support students in their learning goals.

Modern, connected cloud ERP systems enable organizations to scale services easily, and conduct rapid upgrades or updates to relieve some of the manual burden (*Abd Elmonem et al., 2016*). By adopting a cloud-based ERP, colleges can realize improved location resiliency, system availability, and disaster recovery in the event of emergencies (*Abd Elmonem et al., 2016*).

For the common ERP to be effective:

- Colleges must align and agree on what can be standardized to reduce or eliminate specific local customizations.

- It must have enough modules available to improve the overall functionality for most stakeholders and must be equal to or better than a college’s current ERP.
- There should be a common data repository that is easily accessible to pull data as needed.
- There must be robust security in place.
- Service level agreements must be made available.

Though customizations limit the overall benefit of a common ERP, some local contracts and bargaining units may require flexibility and custom processes; however, the standardization process will reveal those tensions and provide an opportunity to maximize information sharing and student mobility.

## 2. Inconsistent management of data and inaccurate reporting limit our ability to serve students and faculty

*“A huge benefit for students would be to capture their information and have that data wherever they go, so they don’t have to re-live their trauma or revalidate they are worthy or eligible for services we know they qualify for.”*

-CCC Stakeholder

Due to a lack of standardization in data management and reporting, data is disconnected, inconsistent, and inaccurate across the system, which affects stakeholders who might be pulling, analyzing, or submitting data for reporting requirements. Partially due to local ERP differences, and changing federal and state reporting requirements, the process of collecting, cleaning, analyzing, and submitting data is burdensome and time-consuming.

This effort prevents staff from performing their jobs effectively and hinders students as they are forced to submit their information multiple times in various forms.

Inaccurate data means students are not being accounted for or represented correctly at the institutions they attend, and differences in data formats result in missing or duplicate students in the system. Given the importance of student enrollment data in the Student-Centered Funding Formula (SCFF) (*California Community Colleges, 2022*), inaccuracies create a risk of decreased funding for colleges, which negatively impacts support for students. Additionally, errors and miscommunication in data management and reporting result in students not receiving the requisite financial aid needed to pursue their education. Significant time spent by faculty and staff cleaning, manipulating, and reporting data limits their ability to better support students.

Nearly all (90%) the stakeholder groups interviewed indicated data management and reporting as a significant challenge in their current role, regardless of whether they were staff or faculty. Stakeholders highlighted difficulty tracking, extracting, and reporting data effectively for local, state, and federal requirements across multiple departments including:

- Financial aid
- Institutional research
- Student services
- Budget office

Many stakeholders also shared they must manually enter and manipulate data to meet reporting needs, which is time-consuming and pulls staff away from more strategic priorities. Formulating and cleaning data requires significant coordination with the Chancellor's Office to meet specific state requirements.

### **Potential Value enabled by a common ERP**

With a common ERP and data governance model (how data should be gathered, stored, processed, disposed, etc.) colleges can be significantly relieved of the burden and effort required to track, share, and report data. A common ERP will support the Chancellor's Office to be able to collect data when needed rather than requiring submissions from colleges. Coordinated data structures would decrease the time and effort in pulling data and allow for standardize reports.

There are currently multiple iterations of data cleansing required to fulfill the state reporting requirements. A common ERP and data model will decrease the current back-and-forth between Colleges and the Chancellor's Office to submit accurate data. A common data model enables the colleges to easily track and share data, whether sharing student information for students attending classes across multiple colleges or tracking faculty that teach in multiple colleges. Additionally, standardizing and streamlining data collection would lead to fewer errors, consistent reports, and reduce data knowledge gaps.

To reap the benefits and potential of a common ERP for the California Community Colleges, standardization of data management processes and procedures will need to be one of the first steps in the implementation process. Careful consideration around setting up permissions and restrictions to prevent other colleges from accessing sensitive data will be critical.

### **3. Current landscape exacerbates existing hiring and retention challenges for IT staff.**

Colleges across the system are facing multi-faceted talent challenges, from hiring and retaining talent to being able to effectively deploy their people due to outdated, hyper-customized local technology. Antiquated systems are a barrier to institutions' ability to hire and retain prospective employees that are seeking a modern workplace. Older ERP systems consume existing staff's time with maintenance, upgrades, and fixes, which ultimately prevents them from being proactive to better support students, faculty, and

staff. The impact is most significant at small and rural colleges with limited local talent pools. While the need is most critical with IT talent, existing technology issues affect talent in multiple departments, including Institutional Research and Financial Aid.

The IT staff provides critical foundation and wraparound support for students as they pursue their education. With IT talent consumed by ERP management and maintenance, staff cannot proactively seek opportunities to improve the student experience.

The findings from the stakeholder analysis revealed talent concerns across a broad range of stakeholder groups, colleges, and regions. Interview respondents shared that finding talent that has the appropriate qualifications for the roles is challenging, and current staff are not being used to their full potential. Stakeholders highlighted that it is often difficult to find talent with the knowledge and skillsets needed to use their specific ERP systems.

Throughout our interviews, stakeholder groups across colleges shared concern for maintaining institutional knowledge when long-time employees retire or leave, indicating that they might not be able to hire a replacement. Additionally, stakeholders highlighted insufficient funding to hire new staff or retrain current staff. For institutions located near large private sector employers, such as in Silicon Valley and Los Angeles, stakeholders voiced the struggle to compete for top talent against more modern systems and lucrative opportunities. In small, rural locations, institutions shared challenges finding qualified talent among a limited local talent pool, where positions can sometimes sit open for months.

*"I currently have a System Administrator who is about to retire, and I probably won't be able to rehire for that role with the existing ERP landscape."*

-CCC Stakeholder

## Potential Value enabled by a common ERP

A common ERP would enable colleges to take a more strategic approach to talent. Removing the local ERP management burden and moving to a common ERP with centralized maintenance would create considerable time-saving relief of fixing and updating systems. Resources that formerly served maintenance of the ERP can be reallocated to strategic projects, or simply focus talent on the core business value of serving students (*Bhamangol et al., 2020*).

Additionally, a common ERP creates a shared talent pool and knowledge base to share best practices and provide staffing support across colleges. All staff would be trained on the same system, which reduces the burden of retraining staff when working across colleges.

As it pertains to hiring talent, the open roles are more sought after to prospective applicants when they align to modernization and focus less on system maintenance. When retaining talent, a common ERP mitigates challenges when losing staff with highly



customized institutional knowledge. Since all staff are trained on the same system, with limited customizations and manual workarounds, the importance of specific institutional knowledge is decreased.

Though the initial implementation of a common ERP will create an initial learning curve for students, faculty, and staff, a common ERP would enable sharing of resources across the colleges. Having a single technology solution will also provide the opportunity for centralized solution training rather than having local training initiatives.

#### **4. Students, faculty, and staff face inequitable experiences related to technology, reduces institutional mobility, limits visibility into data, hinders communities of practice, and increases barriers to success**

Across the colleges, there is a lack of equity in systems, processes, and resources among small and large colleges. Insufficient staff and budget at small colleges, partially due to enrollment numbers, means less resources for technology needs and less resources for students, faculty, and staff. Inconsistent levels of access to technology and support from college-to-college disenfranchise students as they work to meet their academic goals.

*“Ended up switching my major because of the different systems you must use when you go outside your district/college to find classes. It made it difficult to complete my associates degree. I think having that one central system would be super beneficial to many students.”*

-CCC Stakeholder

Inequities are most prevalent for students and faculty that attend and teach at multiple colleges, as the differences navigating disparate workflows across multiple ERP systems create additional barriers that hinder their ability to focus on core administrative or educational

responsibilities. Students have a different technology experience at each college they attend which impacts the student’s trust and confidence in the college.

Stakeholders also highlighted an inability to track student and faculty members information beyond their individual college, impacting ability to report accurately. The System is set up to help students meet their educational goals by taking classes at multiple colleges to access specific classes they need, but the differences in technology create additional barriers in this process.

Colleges with greater budget said while they face challenges with their ERP, they have the resources and staff to optimize system functionality. Furthermore, these colleges can invest in new features or even entirely new ERPs that better match their needs. Meanwhile, rural colleges shared that the challenges extend beyond their ERP to internet and network connectivity issues that stifle their day-to-day operations. It is evident that colleges with greater budgets can keep their systems maintained and updated frequently or opt to move to the cloud. Colleges that are budget constrained may not have the ability to update frequently and/or afford the transition to the cloud. Inequity in resources

among the colleges creates different student experiences based on the available functionality, which means students are not receiving the same level of service and support.

### **Potential Value enabled by a common ERP**

A common ERP levels the playing field for all colleges to have a shared, standard, robust technology experience across the state. Smaller colleges gain more access to new modules they either could not afford or used a manual process to meet their needs. The student and faculty experience would improve because they only need to learn and interact with one system rather than multiple systems used across the colleges. The impact is more profound with low-income students and students of color as they continue to have unequal access to technology and the inequity is exacerbated by having to navigate multiple systems and logins (*The Education Trust-West, 2020*).

For staff, a common ERP offers a new user community and group to support each other in their specific roles and functions, to share best practices, and collaborate more effectively. By centralizing ERP management, colleges are relieved from the burden of fixing and maintaining individual systems, which is uneven across the state depending on the size of budget and access to local IT staff.

Though budget could be spent on upgrading individual systems, an investment in a common ERP would enable all colleges to upgrade their systems, thereby creating a more equitable experience across the colleges.

Equity must be considered throughout the preparation, planning, and adoption of a common ERP. In addition, the colleges must have sufficient staffing and resources that meet their needs through the implementation process. If support is not provided equitably, the net benefit of the common ERP is diminished. Implementing a common ERP could create initial inequity if challenges disproportionately affect the colleges with fewer resources. As California Community Colleges looks to adopt a common ERP, the Chancellor's Office should make sure sufficient and proportional staffing and resources are available for all colleges.

## **5. Slow adoption of modern technology systemwide contributes to security vulnerabilities for students, faculty, staff, and institutions, impacting continuity of delivery of education and services.**

Many colleges are still operating on-premises ERP systems, and many have limited staff and resources to update to the latest ERP software, which makes them significantly more vulnerable to attacks than peer colleges that are on the cloud. These vulnerabilities have resulted in cyber-attacks

*“Security remains a challenge, particularly with on-prem and outdated versions. A breach last year left us with pencil and paper registration for the full semester.”*

-CCC Stakeholder

on colleges, including reported attacks at Sierra College, Ohlone Community College District, and Merced College in 2022.

Conversations with interviewees confirmed the significance of the security vulnerabilities as multiple stakeholders, especially CISOs, indicated security was one of their highest priorities.

## Potential Value enabled by a common ERP

With a common ERP, the most vulnerable colleges are brought under the umbrella of the central system security, greatly reducing their exposure to cyber-attacks. In doing so, student, faculty, and staff data is better protected across the system, regardless of budget size or capabilities.

As some colleges face regular cyber threats, a common ERP provides centralized, committed security assets to mitigate against those threats. In a centralized system, “data is distributed across multiple servers,” so in the event of a breach, hackers cannot gain access to all data elements (Costello, 2021). Additionally, potential threat information can now be shared quickly and easily across the colleges, which is not currently happening after hacks and attacks. If the common ERP is a cloud-based solution, the colleges will see the added benefit of the cloud provider managing physical and network security, with the colleges being required to adhere to security best practices when it comes to solution configuration and management. In addition, data will be dispersed across multiple servers, so recovery can happen more quickly.

For the colleges to take full advantage of increased security protection, the common ERP should strongly consider a SaaS cloud-based solution that has features such as secure authorization and authentication, regular security patching, increased visibility into potential breaches, external threat detection, application firewalls, mechanisms to protect critical applications/assets, etc.

## Key Dependencies and Risks

Robust change management, project management, staffing support/resource availability, and transparency throughout the process will be needed to support the system in planning for, designing, and transitioning to a common ERP. While a common ERP will begin to address many challenges that California Community Colleges face, it is not a solution for all issues. A transition will not only represent a technology change but also a cultural change affecting business processes and ways of working, offering new opportunities to collaborate and work together across the system. A successful transition will additionally need

*“We have big colleges/districts and small colleges/districts, and we all have different resources. It’s important for the decision makers to be looking out for the institutions that don’t have the resources.”*

-CCC Stakeholder

to carefully attend to business process design, data model development, and a comprehensive review of roles and responsibilities. There will be key dependencies across people, process, technology, data, and experience.

## **People**

The greatest dependency identified across the 11 stakeholder groups was gathering buy-in, alignment, and agreement on a common ERP across all colleges, which currently operate and function 116 different ways and are each led by a locally elected board. It will be important to build ownership early in the process by bringing together a broad and diverse group of stakeholders (including students, faculty, staff, and local boards) into the early stages of identification, standardization, and implementation of an ERP.

Additionally, many colleges are currently undergoing or have recently completed an ERP transition, which has led to change fatigue. To mitigate change fatigue and the general fear that comes with change, the implementation process should include comprehensive change management practices, transparency, and clear communications.

Staffing and resource support will be necessary throughout the transition, both locally and at the state level. An assessment of the current staffing needs including required additional funding should be considered to ensure adequate and equitable staffing support for all colleges.

## **Process**

The most significant process challenge raised was creating standardized business processes to best enable the common ERP. Multiple interviewees highlighted this step as a key dependency before consideration of ERP elements or vendor selection. To respond to this challenge, the implementation process should include clear communications around the purpose, goals, expectations, and plans. Timelines should include ample opportunity for alignment and agreement on target state ERP business workflows, requirements, and user scenarios. Additionally, stakeholders emphasized the importance of continuous validation and alignment throughout the planning and implementation process.

Stakeholders wondered whether there would be a sustainable level of funding available given the anticipated length of the project. Specifically, some stakeholders voiced concern that funding is not guaranteed, and the potentially limited impact created by the existence of only a short-term budget guarantee. To assuage these concerns, it will be important to confirm and communicate the availability of long-term funding, and create a clear, comprehensive budget with identified funding sources.

## **Technology**

The underlying challenge around technology is a question about whether a common ERP system will have the capabilities (e.g., interoperability, real-time reporting and analytics, third-party integrations, system scalability, robust security, self-service features, etc.) to handle the diverse needs of the colleges and accomplish their institutional goals. Some stakeholders mentioned concerns about whether a common ERP will sufficiently support small colleges, or if those colleges will be forced to accommodate large colleges. Others wondered about how local complexities will affect a common approach. Overall, stakeholders indicated a need to maintain some local ERP flexibility or customizations to meet the need of local bargaining units. To mitigate these concerns, conversations with a diverse group of stakeholders should take place to determine what system(s) will best accommodate the needs of the different colleges, what level of local flexibility will be allowed, and what vendors would be fit these needs, evaluating all feasible options before selection.

### **Data**

Stakeholders highlighted data as one of their greatest challenges with their current ERP, but also acknowledged the challenge of data for adopting a common ERP. Specifically, the challenge is in finding agreement and standardizing data elements, definitions, structures, and reporting processes to support the move to a common ERP. Once agreement is found, stakeholders also highlighted the challenge of preparing and cleaning the data, and finally migrating data from all colleges on to the new solution. To mitigate these concerns, the implementation process should include extensive project management and clear timelines that include ample time and support for each step in the data standardization process.

### **Experience**

Stakeholders shared potential challenges around inequity in experience during the implementation process. Stakeholders emphasized a need for equitable support through implementation, meaning colleges that already have fewer resources and staff today will need more support through implementation than well-resourced colleges. As one stakeholder shared, “It’s important for the decision makers to be looking out for the institutions that don’t have the resources to accomplish this alone.” Resource limited colleges should be included early in the planning and implementation process to provide a voice for the needs of the colleges where additional support may be needed.

### **Risks**

Apart from the dependencies across people, process, technology, data, and experience there are risks and challenges stakeholders believe would be realized through adoption of a common ERP solution. The implementation of a common ERP system in the California Community Colleges poses unique challenges and potential risks due to the complex

nature of the operations, scale, and requirements across districts and colleges. Challenges and risks we heard in adopting a Common ERP include:

- Concern that this technology will impact jobs, roles, and workloads.
- Perceived loss of local control at a college level.
- Standardizing processes and procedures that may be unique to a college.
- Developing and maintaining consistent training for stakeholders and institutions.
- Clear ownership of maintenance, updates, and system changes.
- Clarity on measuring return on investment for adoption of a common ERP.
- Gathering buy-in.
- Aligning on nomenclature, data elements used (data dictionary), and data governance across all Districts and Colleges.

Understanding these risks further will assist in developing effective risk management strategies and ensure successful buy-in, adoption, and implementation of a common ERP platform or solution.

## Potential Alternatives to a Common ERP Suggested by Interviewees

During the interview processes, several alternatives to a common ERP were suggested by interview participants that the Chancellor's Office should take into consideration when reviewing alternative solutions, including:

- **Aligning the nine regions** by moving to common ERP systems (nine separate ERP instances) instead of moving all colleges to one common system, taking advantage of the commonalities among colleges within a region.
- **Developing a systemwide code management platform**, which would provide the ability to automate code development systemwide. The code management platform would allow for customization at the local college level within the same common software instance without impacting other colleges that are on the same instance.
- **Aligning all colleges onto the same database** (i.e., Oracle databases are an option for both Ellucian and PeopleSoft products). This might allow for an easier transition and still provide the ability to share data.
- **Creating a joint power authority** for colleges to join and benefit from consolidated buying power without needing all schools to join the common ERP.
- **The state prioritizing security first** by supporting all colleges (through funding) in moving to the cloud.
- **Supporting small colleges and resource-limited colleges** to move to a common ERP instead of the whole system, so that the small colleges and those with limited resources can take advantage of the collective buying power.

## Next Steps

This case for change encapsulates the first step in moving to a common ERP (shown in **Figure 3**). In continuing to respond to the commitment in the Governor’s Roadmap, the Chancellor’s Office’s next steps will include:

- Stand up of a common ERP task force to provide input into the decisions that California Community Colleges needs to make to support the transition.
- Building a comprehensive understanding of the current state of technology platforms across the colleges from a people, process, technology, data, security, and experience lens.

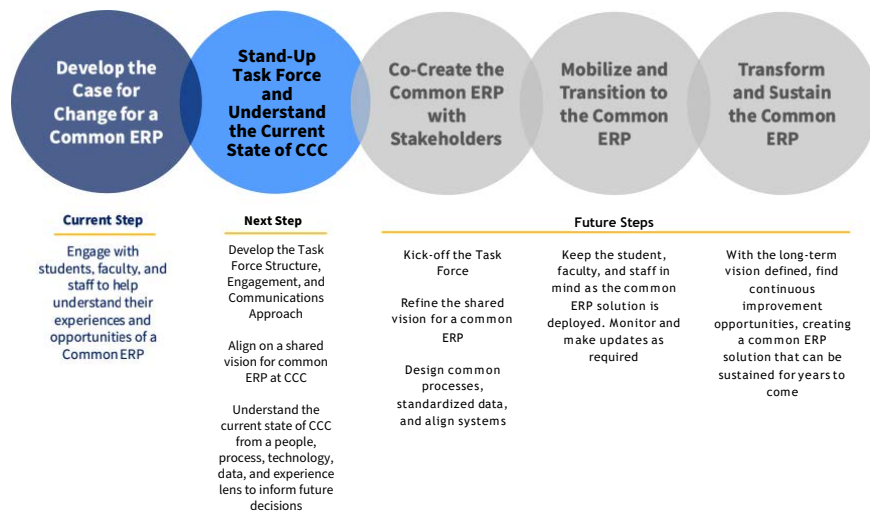


Figure 3. California Community Colleges Stages of Moving to a Common ERP

Though there are compelling reasons to move to a common ERP, many decisions must be made before an implementation or transition can take place. Some of the decisions the system will need to make include:

- Who will be transitioning and when;
- What the implementation model will be;
- Estimated cost of implementation; and
- System requirements.

To take full advantage of all the benefits a common ERP can provide, all colleges would need to move to a common ERP. There are other potential transition options, however, that the system could consider, including transitioning smaller colleges and those with limited resources and budget first.

Developing an understanding of the colleges current ERP landscape is the critical next step to informing the decisions that the Chancellor’s Office needs to make to ultimately

create the implementation roadmap. The current state assessment will provide the system with the information the task force needs to:

- Evaluate potential alternatives in implementation of a common ERP.
- Understand the alternative structures that could be used to support the change initiative.
- Develop an implementation roadmap based on the identified alternatives.

## Conclusion

Drawing on stakeholder interviews across the system, national data, and other higher education and public sector examples, the evidence suggests that the adoption of a common ERP would create meaningful benefits, including:

- A unified faculty and staff technology experience.
- A single, timely, and reliable source of data.
- Modernization that reduces barriers to attracting and retaining IT talent.
- Improved and equitable technology experiences for all stakeholders.
- Comprehensive centralized security and resiliency to reduce local vulnerabilities.

A comprehensive change management and communication strategy, project management discipline, systemwide commitment of resources, and transparency throughout the transformation journey are critical factors to success. As next steps, the Chancellor's Office will stand up of a common ERP task force and project team that will begin to build a comprehensive understanding of the current state of technology platforms across the colleges across key dimensions: people, process, technology, data, security, and experience.



## References

- Abd Elmonem, M.A., Nasr, E.S., & Geith, M.H. (2016) Benefits and challenges of cloud ERP systems – A systematic literature review. *Future Computing and Informatics Journal*, 1(1-2), 1-9. <https://doi.org/10.1016/j.fcij.2017.03.003>
- Bhamangol, B. N., Nandavadekar, V.D., & Khilari, S.H. (2020) Enterprise Resource Planning (ERP) System in Higher Education: A Literature Review. *International Journal of Management Research and Development (IJMRD)*, 1(1). <https://ssrn.com/abstract=3536089>
- California Community Colleges. (2022). *Student centered funding formula*. Retrieved December 20, 2022, from <https://www.cccco.edu/About-Us/Chancellors-Office/Divisions/College-Finance-and-Facilities-Planning/Student-Centered-Funding-Formula>
- California Virtual Campus – Online Education Initiative. (2022). *Common Learning Management System Case Study*. California Community Colleges. Retrieved December 20, 2022, from <https://cvc.edu/wp-content/uploads/2022/05/FINAL-Common-LMS-Case-Study-2022.pdf>
- Costello, L. (2021, May 25). *Benefits of ERP: Advantages, disadvantages & selecting an enterprise resource planning system*. Terillium. Retrieved December 20, 2022, from <https://terillium.com/benefits-of-erp/>
- Council of California Community Colleges Chief Librarians. (n.d.). *About the library services platform (LSP)*. Community College League of California. Retrieved December 20, 2022, from <https://caccleague.libguides.com/LSP>
- The Education Trust-West. (2020, October 6). *The digital divide in higher education*. Retrieved December 20, 2022, from <https://west.edtrust.org/resource/the-digital-divide-in-higher-ed/>
- Gartner, Inc. (n.d.a). Enterprise Resource Planning (ERP). In *Gartner Information Technology (IT) Glossary*. Retrieved December 20, 2022, from <https://www.gartner.com/en/information-technology/glossary/enterprise-resource-planning-erp>
- Gartner, Inc. (n.d.b). Higher Education Student Information Systems. In *Gartner Information Technology (IT) Glossary*. Retrieved December 20, 2022, from <https://www.gartner.com/en/information-technology/glossary/higher-education-student-information-systems>
- LaunchBoard. (n.d.). *Community college pipeline: Overview* [Infographic]. California Colleges Chancellor’s Office. Retrieved December 20, 2022, from <https://www.calpassplus.org/LaunchBoard/Community-College-Pipeline.aspx>

Mendonsa, A. (2022) Market Guide for Government ERP Solutions. *Gartner*. Retrieved December 20, 2022, from <https://www.gartner.com/document/4019570?ref=solrAll&refval=355969493>

National Center for Education Statistics. (n.d.). *College navigator*. U.S. Department of Education. Retrieved December 20, 2022, from <https://nces.ed.gov/collegenavigator/?s=CA&l=92&ct=1>

Ouska, J. (2014, July 14). *Consensus, Compromise, and Persistence: Implementing a Single ERP for 13 Colleges*. EDUCASE Review. Retrieved December 20, 2022, from <https://er.educause.edu/articles/2014/7/consensus-compromise-and-persistence-implementing-a-single-erp-for-13-colleges>

Yanckello, R., & Farrell, G. (2022). Market Guide for Higher Education Student Information Systems. *Gartner*. Retrieved December 20, 2022, from <https://www.gartner.com/document/4013907?ref=lib>

Zimmermann, L. (2021) *California community college chancellor's office final report change management and transformation approach, roadmap and budget* [Unpublished]. Huron Consulting Group.

## Appendix

### Appendix A: Stakeholder Engagement Breakdown

In preparation for this report, interviews were conducted with 67 participants, who represented 57% of the California Community Colleges and 45% of the districts.

College representation came from both the district and college level. 34 or 29% of CCC colleges were represented by an interview participant at the college level. 66 or 57% of CCC colleges were represented by an interview participant from the college or the district level.

The table and graphs below summarize the breakdown of the interview participants by:

- Number of participants per stakeholder group
- Percentage of multi-college district and single-college districts represented
- Percentage of rural, urban, and suburban colleges represented
- Percentage of small, medium, and large colleges represented

#### Number of participants by stakeholder group

A total of 67 stakeholders were interviewed. **Table 3** breaks down the number of interview participants per identified stakeholder group.

Key Stakeholder Groups	Number of Participants Interviewed
Academic Senate for California Community Colleges (ASCCC)	6 participants
Association of Chief Budget Officers (ACBO)	6 participants
Association of Chief Human Resource Officers/Equal Employment Officers (ACHRO/EEO)	5 participants
California Community College Chief Instructional Officers (CCCCIO)	4 participants
California Community College Cohort Information Systems/California Community Colleague User Group (4CIS/4CUG)	5 participants
California Community Colleges Student Financial Aid Administrators Association (CCCSFAAA)	6 participants
Chief Executive Officers of the California Community Colleges (CEOCCC)	5 participants
Chief Information Systems Officers and Systemwide Architect Committee (CISOA/SAC)	17 participants
Chief Student Services Officers Association (CSSO)	4 participants
Institutional Research, Planning, and Effectiveness/Research and Planning Group for California Community colleges (IRPE/RP Group)	5 participants
Student Senate for California Community Colleges (SSCCC)	4 participants

Table 3. Number of Interview Participants Per Identified Stakeholder Group

### Multi-College District and Single-College District Representation

As displayed in **Figure 4**, out of the 33 districts that were represented in our stakeholder interviews:

- 55% of the districts were single-college districts
- 45% were multi-college districts

This aligns closely with the overall CCC system (*LaunchBoard, n.d.*) which is made-up of:

- 67% single-college districts

- 33% multi-college districts

## Multi vs Single District

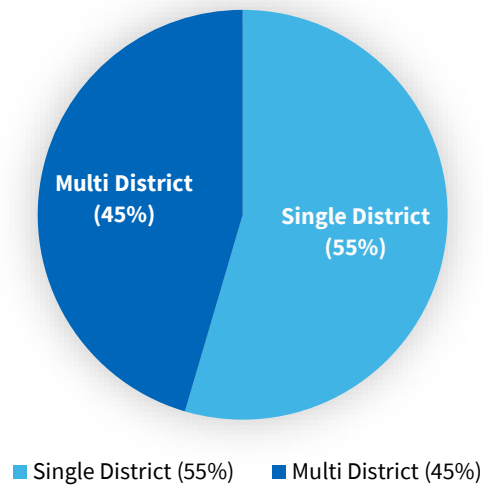


Figure 4. Multi-College District and Single-College District Representation

## Small College, Medium College, and Large College Representation

As displayed in **Figure 5**, out of the 66 colleges that were represented in our stakeholder interviews:

- 56% were large sized colleges
- 20% were medium sized colleges
- 24% were small sized colleges

College size was determined based on number of enrolled students. Colleges with less than 10,000 students enrolled were considered small, colleges with 10,000 to 15,000 students enrolled were considered medium in sized, and colleges with 15,001 or more students enrolled were considered large.

This aligns closely with the overall CCC system (*LaunchBoard, n.d.*) which is made-up of:

- 47% large sized colleges
- 27% medium sized colleges
- 26% small sized colleges

## Small vs Medium vs Large College

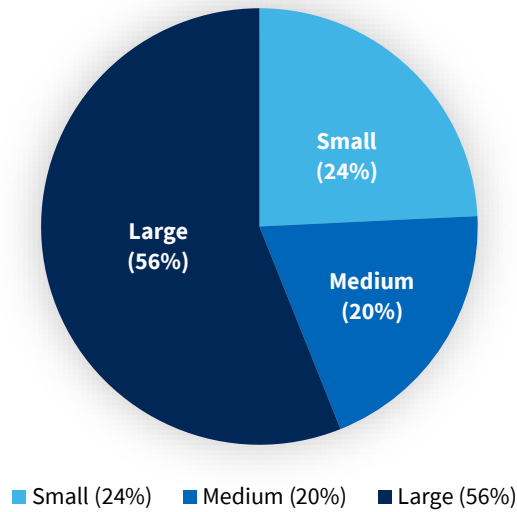


Figure 5. Small College, Medium College, and Large College Representation

### Rural, Suburban, Urban Representation

As displayed in **Figure 6**, out of the 66 colleges that were represented in our stakeholder interviews:

- 45% represented urban colleges
- 42% represented suburban college
- 11% represented rural colleges

This aligns closely with the overall CCC system (National Center for Education Statistics, n.d.) which is made-up of:

- 42% urban colleges
- 41% suburban colleges
- 16% rural colleges

## Rural, Suburban, and Urban Representation

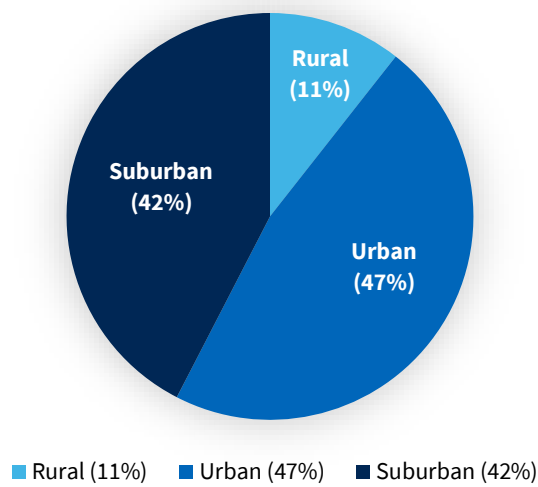


Figure 6. Rural, Suburban, Urban Representation

### Appendix B: Stakeholder Insights

#### Stakeholder Insights Definitions & Summary

The Stakeholder Insights section details the key takeaways, themes, and sentiments collected from stakeholders as part of the interview and stakeholder engagement process. Each section contains findings across requirements, challenges, benefits, and dependencies related to the stakeholder group. Responses in each stakeholder section below are listed below (they do not indicate level of importance or priority).

- **Core ERP Requirements** – The features, requirements, and functionalities which stakeholders indicated they want from an ERP solution or platform.
- **Challenges with Current ERP** – The challenges that stakeholders reported experiencing with the ERP system currently in place at their college.
- **Benefits of Common ERP** – The identified expected benefits that stakeholders believe would be realized through the process of adopting a common ERP.
- **Challenges of Common ERP** – The potential roadblocks and challenges that stakeholders believe would arise in the process of adopting a common ERP.
- **Dependencies** – The key considerations and coordination stakeholders expected throughout the process of adopting a common ERP.

When interviewing the student stakeholders, given they primarily interact with the front-end components of the ERP, the interview questions focused on their experience using the front-end components of their college’s ERP, which is referred to in this report as their Student Portal.

## 4CIS/4CUG Stakeholder Insights

The 4CIS/4CUG stakeholder group represents a subset of the Chief Information System Officers at the California Community Colleges. They are responsible for the technology that impacts the administration, academics and students. This includes enterprise applications, networking, security, telecom, help desk, academic technology support, web-based services, reporting and cloud.

Key priorities of the 4CIS/4CUG stakeholder group include removing barriers to get uniform and standardized tool sets and improving equity and access for student, faculty, and staff experience.

### Core ERP Requirements

The features, requirements, and functionalities which the 4CIS/4CUG stakeholders indicated they require from any ERP include:

- Ability to detect fraudulent applications
- Accessible in multiple languages for student-facing modules
- Allowance for interoperability among colleges
- Mobile friendly features (particularly around registration)
- Providing real-time reporting and analytics
- Ability to run integrations and quickly maneuver between applications
- Scalability
- Robust Security
- System stability
- Compliance with ADA requirements

### Challenges with Current ERP

The challenges that the 4CIS/4CUG stakeholders reported experiencing with the ERP system currently in place in their college include:

- Difficulty in being able to detect fraudulent applications passed onto the ERP
- Difficulty hiring and retaining talent due to outdated technology
- Maintaining security due to lack of available staff
- Maintaining multiple integrations
- Limited mobile-friendly features for the students
- Time consuming process to report and forecast because staff is unable to get real-time data from the system
- The amount of time and energy it takes for staff to maintain the ERP which prevents them from working with their departments

## Benefits of Adopting a Common ERP

According to the 4CIS/4CUG stakeholders, the identified expected benefits that would be realized through the process of adopting a common ERP include:

- Ability to leverage the buying power and negotiating power as a System
- Ability to share resources across the System
- Enabling students to focus on completing their degree with a uniform student experience (i.e., not putting the burden on them to learn multiple systems and need multiple login credentials)
- Ability to rapidly innovate system-wide
- Ability to give IT staff the time back to innovate, assist students directly, and help staff
- Improved reporting capabilities
- Modern technology to help attract and retain talent
- Savings, efficiencies, scale and fiscal support
- Stronger cybersecurity by reducing vulnerabilities caused by variability (platform used, location, size of team, size of budget)
- Supporting Cradle to Career initiative by supporting the state-wide data system

## Challenges of Adopting a Common ERP

Potential challenges identified by the 4CIS/4CUG stakeholders that would arise in the process of adopting a common ERP include:

- Concern that a change in technology will impact roles and jobs
- Resistance to change (administrative, functional, and technical)
- Perceived loss of local control at the college level (i.e., reporting)
- Standardizing different processes and procedures across all colleges

## Key Dependencies to Move to a Common ERP

The key considerations and coordination expected by the 4CIS/4CUG stakeholders for the process of adopting a common ERP include:

- Clear requirements to support effective scope of work
- Effective, ongoing change management throughout implementation
- Executive support from the Chancellor's Office and Board of Governors
- Fiscal leadership and equitable funding
- Peer discussions to clarify needs for customizations
- Actively participating statewide leadership committee
- Statewide stakeholder involvement
- Strong technical skills and leadership at the state level



- Inclusion of functional staff to drive the effort as experts in their area along with IT staff

## Chief Budget Officers Stakeholder Insights

### Description

The Chief Budget Officers (CBOs) responsibilities include overseeing the administrative functions of the college including accounting, financials, budgeting, risk management, and facilities.

Key priorities of the CBOs include focused on governance, policies from the legislature, and financial integrity.

### Core ERP Requirements

The features, requirements, and functionalities which the CBO stakeholders indicated they require from any ERP include:

- Ability to integrate with other systems that the college has in place
- Functionality across HR, Student Information, Financial Reporting, Payroll, Bond Programs, Student Records, and Budget
- Ability to accommodate local policies and procedures

### Challenges with Current ERP

The challenges that the CBO stakeholders reported experiencing with the ERP system currently in place in their college include:

- Maintaining the system as updates affect many customized processes
- Managing many system customizations to accommodate the individual needs of colleges and requirements from the legislature/CCCCO
- Updating the ERP in a timely manner due to customizations
- Maintaining information security and protecting student, staff, and faculty Personally Identifiable Information (PII)
- Managing financial aid due to the federal reporting requirements
- Managing frequency of updates needed based on requirements from the legislature and the Chancellor's Office
- Difficulty finding IT staff that are qualified to work in Higher Ed and with the ERP systems currently in place
- Maintaining large number of integrations with other systems being used at the colleges

## Benefits of Adopting a Common ERP

The expected benefits identified by the CBOs that would be realized through the process of adopting a common ERP include:

- Allowing the Colleges to move to a single point of reference, one accounting source with the same codes
- Economies of scale
- Ability to look at data statewide more readily
- Ability to create an implementation of best business practices across the state
- Time savings as colleges could pull data instead of surveying individuals which leads to incorrect calculations due to gaps in response rate
- Resolving problems around dual enrollment and financial aid to better support the students
- Allowing the Chancellor's Office to pull real-time data themselves, freeing up time for the colleges to focus on the needs of the students
- Improved security as updates would be made on a timely basis

## Challenges of Adopting a Common ERP

According to the CBO stakeholders, the potential challenges that would arise in adopting a common ERP include:

- Addressing duplicate ID numbers and different levels of personnel across each college
- Colleges' return on investment for those currently undergoing an ERP transition
- Effort to standardize across the System (e.g., agreeing to the same Chart of Accounts or style of reporting) as each college conducts business differently
- Addressing legacy systems customizations and functionality unique to the college
- Impact to staff workload who will be involved in implementing the change

## Key Dependencies to Move to a Current ERP

The key considerations and dependencies expected by the CBO stakeholders in adopting a common ERP include:

- Clear communications around the impact a common ERP will have on the budget officers, staff, students, and faculty
- Confirmation that Chancellor's Office has enough staff to support the transition
- Transparency on the Colleges expected contributions to the cost of this initiative
- Clarity on return on investment for the Colleges
- Discussion around the common steps that would be necessary for the change
- Inclusion of local boards in future discussions
- Security controls around moving user data into a single uniform system

- Support in backfill for day-to-day operations and support
- Transparency of the upfront cost and ongoing cost

## Chief HR Officers Stakeholder Insights

### Description

The Chief Human Resource Officers (CHROs) are responsible for oversight of all human resources functions including recruitment, onboarding, training, benefits, employee and labor relations, compliance, and reporting. They may also oversee payroll, the ERP, or serve as the lead negotiator for local labor unions.

Key priorities of the CHROs include reporting, the full recruitment process, and compliance for all employees.

### Core ERP Requirements

The features, requirements, and functionalities which CHRO stakeholders indicated they require from any ERP include:

- Ability to rollover data (from legacy ERPs)
- Ability to interface with external applications/systems (including receiving, transmitting, and processing data)
- Easy processes for making corrections/updating data
- Flexibility to respond to differences in the way colleges classify, employ, pay, and manage employees
- Mobile-friendly self-service and accessibility features
- Information connected to one person (not a position) in one profile that can be tracked, rather than multiple instances
- Robust security controls and features (i.e., access and authorization)
- System that can easily be queried

### Challenges with Current ERP

The challenges that CHRO stakeholders reported experiencing with the current ERP system include:

- Customizations needing to be addressed after every major updates
- Inability for ERP to interface seamlessly with internal or external systems
- Cost and time-sensitivity of implementation and maintenance
- Use of duplicative or “shadow” systems to manage employment
- Time consuming processes to pull current and historical data from the system for reports

- Timekeeping being either poorly integrated or not supported at all with current ERP
- Variance in module usability (e.g., benefits); some functions work well while others may not

## **Benefits of Adopting a Common ERP**

According to the CHROs, the identified expected benefits that would be realized through the process of adopting a common ERP include:

- Centralization which will allow for compliance with retirement system reporting
- Centralized functions that would allow data retrieval, sharing, and reporting
- Collective buying power or discount based on size – significant cost reductions by leveraging the entire system
- Decreased time spent on compliance and training because information can be easily shared and accessed by multiple groups across colleges
- Ability to easily track employee information for those working across colleges
- Live, accurate data for all reporting needs

## **Challenges of Adopting a Common ERP**

Potential challenges identified by the CHRO stakeholders that would arise in the process of adopting a common ERP include:

- Managing the unique collective bargaining agreements of each college that will impact updates to a common system
- Creating a common labeling system and data dictionary will be a large and complex effort
- Getting all 116 colleges to agree and align on the same system
- Balancing standardization and the need for customization
- Recouping costs and investment of current ERP
- Training staff on a new system will require time and effort

## **Key Dependencies to Move to a Current ERP**

The key considerations and coordination expected by the CHROs for the process of adopting a common ERP include:

- Clear directions and delineation of what each college is responsible for, and what each college is allowed to do to fit their local needs
- Clarity around security responsibilities
- Guidance on customizations—if customizations are allowed, who will be responsible for payment, maintenance, and data breaches
- Flexibility to be able to accommodate local union contracts and negotiations

- Preference towards one universal contract with an ERP provider, where each college would get a license to use the same product

## Faculty Leadership Stakeholder Insights

### Description

The faculty leader is ultimately responsible for the student learning experience including teaching and curriculum development. Faculty leaders act as the voice of faculty locally, have served in leadership roles such as Academic Senate President or Chair of Curriculum and Accreditation, and provide a voice for faculty in statewide matters.

Key priorities of faculty leaders include helping students matriculate as easily as possible, advocating for faculty matters locally and statewide, and making other faculty more aware and interested in student data.

### Core ERP Requirements

The features, requirements, and functionalities which faculty leadership stakeholders indicated they require from any ERP include:

- Ability to access and download important information:
  - Academic calendars, schedules, etc.
  - Employee pay stubs, benefits, records, etc.
  - Student data, eliminating unnecessary barriers to access the data
- Easy-to-use and accessible system for students
- Necessary information being easy to access and readily available
- Integration with third-party applications
- Processes driven by the college instead of the technology driving college processes
- System and network consistency—an ERP that will not break down during peak usage at the beginning of term

### Challenges with Current ERP

The challenges that faculty leadership stakeholders reported experiencing with the ERP system currently in place in their college include:

- Inconsistent access to timely data, delays in access hinder ability to serve students
- Lack of equity across the Colleges – smaller colleges cannot afford the system that may best meet their needs
- Patches and fixes not alleviating problems, and sometimes create new issues
- Providing accurate information to students and staff without having to manually input data
- Software dictating their processes, instead of processes directing the system

## Benefits of Adopting a Common ERP

According to the faculty leadership stakeholders, the identified expected benefits that would be realized through the process of adopting a common ERP include:

- Better access to current data within the semester/term
- Communication and coordination across different systems, both internally and externally
- Improved equity across the Colleges; small and large colleges will use the same system
- Reducing equity gaps in the institutional experience for students and staff at colleges across the state; access to information is consistent and available
- Opportunity to modernize functionality, look and feel of the system

## Challenges of Adopting a Common ERP

Potential challenges identified by the faculty leadership stakeholders that would arise in the process of adopting a common ERP include:

- Coordinated, consistent training for everyone; one-off trainings will not help end-users feel comfortable
- Designing a shared system that adequately meet local needs
- Statewide and local resources required to implement and provide training and support for new processes and systems
- The learning curve around the new solution or platform
- Time needed to prepare, implement, and train for both individuals and institutions

## Key Dependencies to Move to a Current ERP

The key considerations and coordination expected by the faculty leadership stakeholders for the process of adopting a common ERP include:

- Broad stakeholder engagement across the System to allow everyone's voice to be heard
- Collaborating with faculty, ASCCC, students, and all stakeholders throughout the whole process so that all stakeholders are integral in the decision-making
- Considering what is standard and what is customized, how the money will be spent, and how the colleges will be supported
- Determining what elements will be state-directed and what can be customized
  - Local bargaining agreements will need to be factored into consideration
- Interaction and engagement with the Chancellor's Office for guidance and communication on timelines and goals

## Chief Instructional Officers Stakeholder Insights

### Description

The Chief Instructional Officers (CIOs) act as an educational liaison on instructional planning, institutional effectiveness in support of data integrity, curricula, and student attendance.

Priorities of the CIOs include driving conversations around inclusivity of hiring practices, student experience, and leadership, consulting with the Chancellor's Office on the impact of legislative matters, supporting diversity and equity across numerous facets of student and faculty experience, and providing support for professional faculty development that promotes equitable student experiences in the classroom.

### Core ERP Requirements

The features, requirements, and functionalities which the CIO stakeholders indicated they require from any ERP include:

- Ensuring that students are enabled to succeed and that all data necessary to do so is available and up-to-date
- Ability to build schedules, house courses, programs, prerequisites, course material fees, and course characteristics
- Ability to integrate with external applications
- Ability to view accurate student data to understand demographic, diversity, and student success parameters

### Challenges with Current ERP

The challenges that the CIO stakeholders reported experiencing with the ERP system currently in place in their college include:

- Data integration processes that are time consuming and cumbersome
- Lack of self-service reporting
- Ability to drive scheduling and curriculum decisions based on student needs rather than within the technical bounds of the existing ERP system(s)
- Difficulty tracking students with the data currently available system-wide (e.g., notably tracking pipeline from K-12 institutions to CCC institutions, students that leave and return to CCC at varying times, and their subsequent departure to other institutions such as 4-year colleges or the job market)
- Understanding and tracking diversity factors amongst existing and future students to bolster awareness of equity within the system

## Benefits of Adopting a Common ERP

According to the CIOs, the identified expected benefits that would be realized through the process of adopting a common ERP include:

- Allowing for better integration of other tools currently being used to reduce manual data entry, increase awareness, and safeguard data quality
- Coordinated data structures that would decrease the time and energy it takes to pull data and allow for standardized reports
- Creating a community of practice within the colleges to solve problems collectively
- Streamlining of data collection would lead to fewer errors and more consistent data
- Ability to standardize how common data is collected and organized would ensure everyone is using and adhering to the same data sets

## Challenges of Adopting a Common ERP

Potential challenges identified by the CIOs that would arise in the process of adopting a common ERP include:

- Needing to hire technical staff members as well as additional support staff members at the Chancellor's Office level to support a common ERP
- The cost and ownership of the common ERP in addition to clear ownership for maintenance, updates, and system changes

## Key Dependencies to Move to a Current ERP

The key considerations and coordination expected by the CIOs for the process of adopting a common ERP include:

- Sufficient staffing for programmers and IT support staff
- Sufficient bandwidth for preparation and training of the new solution
- Robust transition plan with support both for current ERP as well as enhancements and customizations currently developed

## Financial Aid Officers Stakeholder Insights

### Description

The Financial Aid Officers are responsible for all scholarships and funding programs including federal, state, institutional, and veterans' programs, special relief programs (such as HEERF - Higher Education Emergency Relief Funds), and student employment.

Key priorities of the Financial Aid Officers include getting back to pre-Covid enrollment and building partnerships and conducting outreach for financial aid participation (for



student funding formula), getting work study students back, using HEERF funding, and building in automation to their current processes.

## **Core ERP Requirements**

The features, requirements, and functionalities which the Financial Aid Officers stakeholders indicated they require from any ERP include:

- Flexibility, ease-of-use, and self-service workflows for the end user
- Ability to meet regulatory requirements for federal, state, and veterans affairs reporting, ideally with limited data manipulation
- Proper configurations from the beginning, with limited customizations, compatibility with LMS, and modules that connect with one another
- Reporting and queries, must be able to access the data easily in cleanest possible form and visualize as dashboards

## **Challenges with Current ERP**

The challenges that the Financial Aid Officers stakeholders reported experiencing with the ERP system currently in place in their college include:

- Customizations requiring the need to run multiple reports/queries to get relevant data needed for reporting
- Difficulty with ERP not working well with other colleges; requires extra coordination and communication to find data do their job effectively
- Manual workarounds for processes that should be automated or easy to do with the ERP
- The ERP learning curve where the system works only as well as the ability of trained staff to use the system
- The ripple effects of updating or changing one module which often disrupt other modules or processes

## **Benefits of Adopting a Common ERP**

According to the Financial Aid Officers, the identified expected benefits that would be realized through the process of adopting a common ERP include:

- The ability for students to see the same information anywhere in the system
- Consistency and efficiency of reporting, both in pulling reports and submitting reports to the CCCCCO
- More efficient and streamlined processes
- Reduced time and effort of staff to find and compile data needed for reporting

- Reduced learning curve, students only need to learn how to use one system vs. navigating multiple systems across different colleges
- Opportunities to create state workgroups to determine the best workflow for one system when new programs happen

## **Challenges of Adopting a Common ERP**

Potential challenges identified by the Financial Aid Officers that would arise in the process of adopting a common ERP include:

- Adjusting policies and procedures for a new system which will need time and resources
- Aligning all colleges with local boards and local decision-making to agree on one system
- Clarity around Colleges' return on investment for current ERP or transition to new ERP
- Management of faculty contracts and how academic calendars affect faculty contracts; almost every academic calendar is unique that may create downstream ripple effects
- Gathering buy-in for the initiative up front before any implementation
- Transparency around the upfront cost and ongoing cost of a new ERP if it is the responsibility of the colleges

## **Key Dependencies to Move to a Current ERP**

The key considerations and coordination expected by the Financial Aid Officers for the process of adopting a common ERP include:

- Alignment and standardization of policies and procedures will be an important step
- Clear state-level structure for coordination, compliance, and maintenance of ERP
- Commitment from Chancellors, Presidents, and their boards
- Coordination with 3rd party systems and services that integrate with the ERP (e.g., Ocelot, Campus Logic, etc.)
- Gather buy-in from all stakeholders involved in the process before deciding a change or vendor
- Staffing support for implementing and training, and ongoing support, including dedicated IT support, for the new system in addition to staff backfill for any employees pulled away from their current workload

## Superintendent/President (CEOCCC) Stakeholder Insights

### Description

The Superintendents/Presidents are ultimately responsible for the college, represent the various stakeholders within the institution, and are accountable to a locally elected board.

Key priorities of the Superintendent/President include delivering education promised to students, setting up and running Guided Pathways, create an accessible and usable robust data system, and ensuring faculty and staff can effectively do their job supporting students.

*In General, the Superintendent/President is open to considering alternative solutions in lieu of a common ERP.*

### Core ERP Requirements

The features, requirements, and functionalities which the Superintendent/President stakeholders indicated they require from any ERP include:

- Ability for HR to track workloads and proportional payments of benefits for part-time faculty
- Cloud options with multiple instances
- Easy-to-use interface, mobile-friendly, and up to date software
- On-time payment of employees, students, and vendors
- Prompt vendor customer service response
- Regular, timely updates that do not overly interfere with day-to-day operations
- Simple, streamlined data reporting capabilities
- Some flexibility, seamless integration with multiple systems and customizations to meet local needs and requirements
- Strong cybersecurity protection

### Challenges with Current ERP

The challenges that Superintendent/President stakeholders reported experiencing with the ERP system currently in place in their college include:

- Annual cost increases without significant functionality improvement
- Concerns that the major ERP providers do not have incentive to provide high-quality services and products to the Colleges because of inherent complexity and local level nuances
- Formulating and uploading data for MIS and other reporting

- Inequity across colleges to go to the cloud; smaller and colleges with limited funding cannot afford the transition
- Poor vendor management where instead of fixing ERP issues around California regulations, ERP provider provides manual workaround guidance
- Platform updates that break and causes issues with the local ERP, which is particularly bad in California because the standard system is not built for the nuances of California needs

## Benefits of Adopting a Common ERP

According to the Superintendent/President stakeholders, the identified expected benefits that would be realized through the process of adopting a common ERP include:

- Assuming a common ERP is a cloud solution, better data security and location resiliency against natural disasters
- Buying and negotiating power for better discounts for everyone; current annual costs are significant
- Streamlined way of reporting data for state and federal programs, and sharing across colleges
- Centralization would level the playing field for smaller colleges enabling them to have equal access and benefit from modern technology
- Integrating applications and information (e.g., connect ERPs with Canvas) and reducing duplicative data entry
- Increased bandwidth of IT and Institutional Research staff to do more proactive, innovative work rather than maintenance, patching, and upgrades
  - Would not downsize IT staff, a common ERP would enable staff to be more productive

## Challenges of Adopting a Common ERP

The potential roadblocks and challenges identified by the Superintendents/Presidents that would arise in the process of adopting a common ERP include:

- Aligning across all colleges:
  - Each college has local contracts, collective bargaining agreements, load factors, etc. that need to be taken into consideration
  - Getting agreement on data elements to standardize reporting
  - Integration of information across schools, including alignment of different colleges' business processes
- Effort to redo existing integrations to all current systems as well as all business processes impacted
- Pushback from restricting local control and local autonomy

- Risk of central bottleneck, where if one thing breaks, it affects the collective system
- Single point of security failure; unclear if a common system will make all data secure overall
- Uncertainty around if any one entity or group has the staff and resources to undertake and manage a large-scale transformation at present

## **Key Dependencies to move to a Common ERP**

The key considerations and coordination expected by the Superintendents/Presidents for the process of adopting a common ERP include:

- Acknowledgment of the benefit to the small colleges in the System, but questions whether a smaller-scale common ERP better serves the needs of those colleges rather than one for the entire system
- The desire to see other existing problems solved first before a common ERP
- Transparency around cost-savings which if real can benefit the colleges, and used as an incentive
- Clarity around if there are enough staff and resources at a system-level to accomplish such an effort
- The use of a joint power authority that could be put in place for colleges to join and get the same economy of scale without needing all schools to join a common ERP
- The need to understand and agree on the problems the system is trying to solve for
- The need for the Chancellor's Office to set standards for data, security, etc.
- The alternative of the state prioritizing security first by supporting all colleges (through funding) in moving to the cloud

## **Chief Information System Officer (CISOA/SAC) Stakeholder Insights**

### **Description**

The Chief Information System Officers (CISOs) oversee the technology strategy and operations of their college including infrastructure, networking, data services and security, and disaster response.

Key priorities of the CISOs include security of college systems and data, identifying and managing IT services, and enabling students, faculty, and staff to be successful from a technology perspective.

### **Core ERP Requirements**

The features, requirements, and functionalities which the CISO stakeholders indicated they require from any ERP include:

- Access to clean, real-time data for internal use and reporting requirements
- One consistent experience for the students that is simple, easy to use, and mobile friendly
- Robust support to ensure uninterrupted system performance and quick and effective issue response
- Seamless integrations to 3rd party products and systems with a common API toolset
- Robust security from a data security and authorization/authentication perspective
- Ability to account for some aspect of local manipulation for specific needs without allowing full customizations
- Standard business and academic functions, regulatory requirements, and processes should be automated, without manual workarounds
- Technology that is on a managed cloud or SaaS
- Training for end-users and managers of the ERP system

### **Challenges with Current ERP**

The challenges that the CISO stakeholders reported experiencing with the ERP system currently in place in their college include:

- Complex data governance created challenges with data sharing and reporting requirement
- Customizations and local complexities make patching, updating, and system administration, resource intensive
- Lack of ongoing support from ERP vendor; overpromising and under-delivering on updates and features
- Management of ERP systems requires significant time investment from the IT team
- Security issues: many colleges have been hit by ransomware and malware
- Significant manual processes and data entry as a result of over-customization
- Vendor nimbleness with California regulation compliance; vendors cannot keep up with new regulation and reporting requirements

### **Benefits of Adopting a Common ERP**

According to the CISOs, the identified expected benefits that would be realized through the process of adopting a common ERP include:

- Collaboration among user community across CCC, opportunities to share best practices, troubleshoot, and create solutions
- Continuous availability of the system, reduces or eliminates down-time
- The ability to prevent fraudulent applications and fake identities
- Economies of scale: negotiation and buying power enabled by the collective group, which leads to overall cost-savings

- Improving resource equity among small or under resourced colleges
- Increased security and visibility into potential security breaches
- The opportunity to coordinate and consolidate business processes that are currently different at every college
- Reduction of complexity of systems, fewer and easier integrations with other programs such as CCCApply and Canvas
- Relieving local IT staff from infrastructure maintenance including upgrades, patches, and fixes on a more regular cadence to limit disruption to local campus operations
- Significant student experience improvement: better access to their information, data follows them, same system use at all locations
- Standardization of data enables easier, timelier, and more accurate reporting and data sharing across colleges

### **Challenges of Adopting a Common ERP**

Potential challenges identified by the CISOs that would arise in the process of adopting a common ERP include:

- Aligning all independent-minded and locally governed colleges with multiple stakeholders to agree on common processes (incorporating local board policies and procedures)
- Aligning on common nomenclature and data dictionary for data sets for all academic and business functions
- Managing large-scale migration needs such as staffing, project management, coordination of effort
- Meeting unique local obligations of both contractual and collective bargaining agreements while using a common ERP
- Rebuilding and aligning on common processes that are currently different at every college, without allowing too much customization
- Robust communication and engagement to obtain consensus
- Resistance to changing how things operate; convincing stakeholders to change what is familiar
- Uncertainty around whether a single ERP solution exists to meet the breadth and depth of the needs of the Colleges
- Uncertainty around funding in perpetuity, stakeholders would want to know that funding is guaranteed, and how it is guaranteed

### **Key Dependencies to move to a Common ERP**

The key considerations and coordination expected by the CISOs for the process of adopting a common ERP include:

- Consideration around a phased approach beginning with a pilot or proof of concept to test validity and effectiveness with flexibility on phase assignment based on college readiness
- Diligent project management, with resources deployed locally for handholding folks
- Leading with a clear, compelling vision for the overall benefits for students and stakeholders
- Open communication, transparency, and gathering buy-in from all relevant groups including participatory governance early on and throughout the process
- Outlining definitive cost ownership by the Chancellor's Office and/or the legislature now and in the future
- Clarity around the ownership and/or leadership of the initiative, either by the Chancellor's Office or others within the system

## Vice President of Student Services (CSSO) Stakeholder Insights

### Description

Chief Student Services Officers (CSSOs) are responsible for overseeing all student support services, including admissions and records, financial aid, counseling, advising, and other special programs.

Key priorities of the CSSOs include equity and social justice, addressing enrollment declines, operational needs in pandemic recovery, removing barriers in the student environment, and ensuring student needs are being met holistically (from application through to registration, onboarding and completion of their educational goals).

### Core ERP Requirements

The features, requirements, and functionalities which the CSSO stakeholders indicated they require from any ERP include:

- Ability for CSSOs to track students in new or categorical programs/activities/populations such as guided pathways or veterans
- Ability to handle basic functions to support the student experience: enrollment, financial aid, disbursements, student information and records, degree progress, housing, etc.
- Ease of use, including easy to learn, easy to update and integrate with other systems
- Ability to identify and prevents financial aid fraud
- Adequate, supportive training for staff

### Challenges with Current ERP



The challenges that the CSSO stakeholders reported experiencing with the ERP system currently in place in their college include:

- Code changes from the state legislature that require system changes with little time to implement
- Difficulty tracking students across colleges
- Missing functionality that would be helpful to better support students such as net disbursements and enrollment waitlists
- Outdated user interface (on the back end for staff)
- Significant number of customizations
- Difficulty maintaining the system as updates affect many customized processes
- Inability to integrate with third party software
- The need to use manual adjustments and processes when pulling data so that it is usable for reporting
- Needing to use manual processes like Excel spreadsheets as some information cannot be tracked in ERP

### **Benefits of Adopting a Common ERP**

According to the CSSOs, the identified expected benefits that would be realized through the process of adopting a common ERP include:

- Allowing students to move within the System and not re-enter information
- Cohesive statewide advocacy with Board of Governors and Legislature
- For smaller budget colleges, an opportunity to utilize additional modules (e.g., payment plan options, degree audit system, etc.)
- Relief for small college IT departments: allows for more frequent updates, stronger cybersecurity, and more resources
- Reduced costs for colleges to manage their ERP systems on their own
- Standardized data which will enable better usage, reporting, and sharing of information, regardless of college
- Seamless transfer of information to UC or CSU systems

### **Challenges of Adopting a Common ERP**

Potential challenges identified by the CSSOs that would arise in the process of adopting a common ERP include:

- Aligning all colleges without infringing on local autonomy and interests, convincing local boards that are more active in recent years
- Perception of the potential for job loss from modernizing technology
- Transition fatigue for colleges currently undergoing ERP transitions to jump into another transition in the coming years

- The amount of time resources, funding, and processes needed to prepare for an EPR– cleaning data, aligning business process, and addressing local customization

## **Key Dependencies to Move to a Common ERP**

The key considerations and coordination expected by the CSSOs for the process of adopting a common ERP include:

- A system-led effort, driven, and coordinated by the Chancellor’s Office and should include a representative leadership structure
- A steering committee with representatives from the major associations (e.g., CSSO, CCCCIO, ACBO, etc.)
- Availability of third-party consultants and vendors for each college to support the effort
- Concrete funding and assigned support for implementation
- Designated expert(s) at each college to lead the initiative
- Annual, regional training conferences (north, south, central) to train stakeholders on the new system
- Training materials that are produced and leveraged both during the implementation and as leave-behind job aids
- Thoughtful consideration about impacts of a common ERP on colleges of different sizes and whether all voices are heard

## **Dean of Institutional Effectiveness (IRPE/RP Group) Stakeholder Insights**

### **Description**

The Institutional Researchers are responsible for research, planning, and effectiveness for the college. Their staff is responsible for data cleaning, collection, visualization, analysis, and synthesis on various KPIs and strategic initiatives.

Key priorities of the Institutional Researchers include ensuring the fidelity of institutional data, supporting departmental initiatives, and managing data reporting. A system that assists with this work would free up staff time for all other essential duties the office performs (e.g., building capacity for data literacy).

### **Core ERP Requirements**

The features, requirements, and functionalities which the Institutional Researcher stakeholders indicated they require from any ERP include:

- Access to reports for real-time data
- Clean, reliable data with a common data element dictionary
- Ease of use and access to minimize transactional time spent on system

- Functionality to maintain, analyze, and report on institutional data
- Robust support system, including a helpdesk and implementation team

### **Challenges with Current ERP**

The challenges that the Institutional Researcher stakeholders reported experiencing with the ERP system currently in place in their college include:

- Data coming from multiple distinct sources and requiring manual translation, transfer, and reporting to be in the format needed for compliance reporting to various agencies
- Differences in definitions for various components of data and related qualifiers, such as enrollment and demographics, making comparisons challenging
- Low level of visibility of time and effort for data analysis processes that occur at individual colleges, inter-college, and at state level
- Significant effort required to pull data from the ERP, manipulate and clean the data to meet reporting requirements at the state level

### **Benefits of Adopting a Common ERP**

According to the Institutional Researchers, the identified expected benefits that would be realized through the process of adopting a common ERP include:

- Ability to analyze and harness data with up-to-date and common data
- Ability to create a single definition and set of parameters governing each data element which would make it possible to readily access and compare data from different groups or colleges within CCC
- Recapturing time spent on manual data cleaning and collection to be spent on other activities
- Removal of manual tasks that the team performs to clean data to account for variances in reporting and format

### **Challenges of Adopting a Common ERP**

Potential challenges identified by the Institutional Researchers that would arise in the process of adopting a common ERP include:

- Aligning infrastructure (including data collection, data entry, and related business processes) to standardize format will require alignment and commitment from numerous groups
- Adopting a system that not only serves common data needs but also interfaces with the related third-party systems in place at state and college level (e.g., data visualization software, LMS, etc.)

- Coordinating the multiple stakeholders and factors that need to be considered as part of a transition to a common ERP across all colleges
- The need for adequate staffing for a support system, including a helpdesk and implementation team

## **Key Dependencies to Move to a Common ERP**

The key considerations and coordination expected by the Institutional Researchers for the process of adopting a common ERP include:

- Establishing data governance to ensure that all required data and information is carried over to the new system
- Early co-creation with other stakeholders so that everyone is ‘speaking the same language’ as many colleges have different approaches to different systems
- The need for frequent communication at multiple levels to establish project timelines, engage all relevant parties, and create awareness of support systems for transition
- Pairing ERP implementation communications and training with data fluency and awareness of common definitions to be adopted and the significance of each piece of data

## **Student (SSCCC) Stakeholder Insights**

### **Description**

Students use their college’s student portal to view financial aid, pay tuition, register for classes, access tax documents, schedule appointments and tutoring, review the course catalog, and manage degree planning.

Given that student stakeholders only see and interact with the front-end components of the ERP, the interview questions for this group focused on their experience using the front-end components of their college’s ERP which is referred to in this report as their Student Portal.

### **Core Student Portal Requirements**

The core requirements that students indicated they required from any student portal or related system include:

- Ability for student organizations to post information/resources/events through the ERP (student portal)
- American Sign Language (ASL) tutorials, interpretations, and visual aids, and a space where these services can be easily requested

- Ease of use and ease of access – student portal should be intuitive to use with minimal instruction
- Minimal clicks required to access information or schedule appointments
- Minimal navigation process to reduce burden on students
- A one-stop shop for student information (i.e., Zoom and Canvas links) – do not want to log into multiple portals, and do not want the quick links within the portal to require additional logins
- A simple and consistent design so students can access the breadth and depth of the most recent and relevant information and resources available to them

### **Challenges with Current Student Portal**

The challenges identified by students that they experienced with their current student portal include:

- Negative experiences navigating the applications
- A non-intuitive system, which is hard to use, navigate, and access information
- Lack of instruction or support on how to effectively use the portal; learned from peers
- Lack of communication; was not notified or informed when there was a critical functionality and process change in the student portal

### **Cross-College Experience using Different Student Portals**

The challenges that students reported regarding their experience taking courses across multiple colleges within CCC include:

- Inequities in experience
- The need to log into two separate portals with two different logins
- Poor experiences which led to discouragement in continuing to enroll in classes across colleges and pursuit of degree