ERP Fit Gap Analysis

Santa Monica College

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Executive Summary

Santa Monica College partnered with CampusWorks in a campus-wide endeavor designed to review the current state of the student, finance, and human resources technology systems and processes. This endeavor included bringing a team of CampusWorks staff to campus for a week-long assessment that consisted of a document review, in-person interviews and focus groups with staff, faculty, administrators and students, and a review of the various systems that are used to currently service the various constituencies across the College.

During this assessment, the commitment, perseverance, and dedication to Santa Monica College displayed throughout the community was clear. It is this level of commitment to the College and the students it serves, that allows the staff and students the ability to persevere through a mountain of paper-driven processes, disconnected technology, and a lack of self-service functionality.

The current state of the administrative systems throughout the College needs attention and a holistic approach to not only the current needs of the community but also its' future needs. Students and staff alike are accustomed to 21st century technology that is on-demand and provides a personalized experience. Despite the valiant efforts of the IT staff, the current WebISIS system including its' multiple components is unable to provide that. The IT staff are a talented, thoughtful and customer service driven group, but in today's world of instantaneous and integrated systems, the current system that has been built over the past several decades has outlived its' capability, and it is time to embark on the implementation of a modern, integrated ERP system.

Changing the culture at SMC from the current homegrown system that has afforded people the opportunity to receive personalized, custom modules and add-ons to an integrated, configurable ERP environment will be challenging. The implementation of new technology is always a challenging undertaking that takes significant time, effort and additional costs, but these things will not be the most difficult part of procuring a new ERP, changing the culture across SMC will be something that has to be attended to and managed throughout the process. Throughout the interviews conducted with the functional staff and administrators, there was a significant amount of frustration described due to the lack of functionality within WebISIS and its various modules and the predominant reliance on paper processes so being able to illustrate to the community how integration and significant increases in functionality will directly benefit their work lives and their ability to have time to interact directly with students, will be an important piece of the puzzle and should not be treated as insignificant.

Included in this document are the findings and recommendations provided by the CampusWorks team as well as a suggested path forward for Santa Monica College. There are 6 major companies in the higher education ERP marketplace that could potentially meet the needs of SMC. Some of these companies may be a better fit than others due to functionality, cost, implementation time and the ability to integrate with the Los Angeles County Office of Education system for finance and HR, CGI. It is the recommendation of the CampusWorks team that SMC initiates an RFP process to procure an integrated ERP capable of meeting the specific needs of the College. Throughout the following pages, you will see the reasons for this conclusion as well as an estimated project plan, budget, governance structure, and fit-gap analysis. Please note that the estimates for the project plan and budget are based on CampusWorks' prior experience with this process but are subject to change. In addition, the fit-gap analysis has been based on the initial understanding of SMC's needs and vendor information that is publicly available. If SMC decided to engage in an RFP process, the college's specific needs and how each vendor can meet those will become much more apparent.

Our Understanding of the Current Environment

Our Understanding of the Current Environment is a review of findings regarding Santa Monica College's current systems, processes, and policies. It provides a guide to the issues and concerns about business processes, policies, and technology systems. It discusses activities that the institution does well, should be improved, and where you are exposed.

CampusWorks finds virtually every client considering an ERP replacement has significant issues with both the technology and business processes. Critical challenges with both issues were present at SMC. There is an innumerable number of unnecessary manual processes driving excessive costs and poor customer satisfaction that cannot be sustained for the institution to thrive. Additionally, the "customize culture" and thriving cottage industry for purchasing single purpose software that promise to solve SMC's issues is an ongoing threat that also cannot be sustained. Not only are these costs excessive, but they divert funding from SMC's educational mission in favor of back-office operations.

CampusWorks' findings and specific improvement recommendations can be found in detail throughout. A note of caution for Santa Monica College: the cultural and organizational change issues are as critical to the future as replacement of the ERP systems. Technology is a tool. Replacing technology without addressing the serious business process and organizational change issues in balance will not solve the challenges found.

STUDENT

Processes Built for Departments, Not the Student Experience

The existing business process environment at SMC reflects the isolated nature of departmental efforts. There is no agreement or common understanding of what the intended or desired student experience should be. As a result, business processes are developed or maintained based on individual or departmental opinions rather than around a central and common definition of the intended outcomes.

The evolution of business processes over time has been constrained by the lack of collaboration as well as the functionality of the ISIS system. What exists today are business processes that are largely paper- and transaction-driven, demanding substantial manual effort for the students to complete and the College to maintain. These inefficiencies are further exacerbated by the fact that the teams do not have the capacity to further develop processes, as changing business processes requires creating new programming in ISIS, which is time intensive. Processes have been designed or maintained with the primary purpose of accomplishing a department transaction as opposed to first defining the desired experience and designing the processes to support it.

Since a common understanding of the desired student and employee experiences has not been established, decision fatigue arises because departments and individuals must frequently make decisions independently. This disconnected approach, in combination with the reporting challenges that exist, leads to many decisions being made in isolation.

Inconvenient, Inconsistent, and Confusing Student Experiences

The current silo mentality among functional offices results in a lack of business process definition and collaboration opportunities. While some departments naturally cross into other areas, such as student records and counseling, other functional areas identified the current lack of collaboration as problematic functional areas across campus must understand that the student experience should be

seamless, from recruitment as a prospective student through graduation and the transition to alumni. There are natural opportunities to work across functional areas and every opportunity to encourage departments to collaborate should be made.

Customer Service deficiencies were noted in several functional areas. One major instance identified was the long waiting lines in the Admission & Records Office and Counseling Office (up to a four-hour wait during peak periods). Admissions recorded over 44,000 student visits in the last year and counseling recorded 120,000 student visits. With the high numbers of student visits to these offices, students are required to return repeatedly with paper documents to accomplish what should be done within modern systems.

In order to provide better service to students, the counseling department purchased QLess software. This software is an electronic scheduling system that lets students know their place in line when they visit the office (Admissions & Records does not use this software). Students may leave the office area and receive notification when their place at the head of the line is imminent. While the concept of ensuring an easier wait in line is noble, the practice of asking students to stand in line, physically or electronically, for any issue, is far from optimal. Students are required to physically come to the counseling center to get in line and secure their physical or electronic position. No online appointment scheduling is available directly to students. Some areas of the counseling center are first-come, first-served, while other areas accept appointments up to a week in advance (appointments may be made by phone or in person).

The QLess software does little to address the problem of lengthy wait times for students. The lack of student self-service causes students to visit the counseling center for assistance, which in turn causes a backlog of work in the counseling office. The backlog of work limits proactive outreach, which further exacerbates this problem.

College transcript evaluation is also problematic. SMC does not employ a Registrar who oversees transfer coursework or student records. These functions are embedded in Admissions & Records and Counseling. The current course transfer process allows counselors to determine what credits will transfer into SMC. There are well over 100 counselors at SMC and there is the potential issue of transfer inconsistency. In fact, during the ISIS demonstration of transfer functionality, CampusWorks personnel observed a single course being accepted for at least four different SMC courses.

The current transfer process requires a counselor to enter the transfer credits into ISIS and place those credits into a "pending" status until they are approved or rejected by the transfer evaluator or articulation officer. However, the credits will remain in pending status until the student initiates a final transcript evaluation. In some cases, the credits remain in pending status for months, or longer. This is also problematic as financial aid rules require all credits to be recorded as they make financial award determinations based on credits completed toward the student's degree. Credits not recorded in a timely manner will result in incorrect aid awards to students. Furthermore, because there are no transfer equivalency tables built into ISIS, evaluation of equivalent courses is inconsistent depending on who performs the evaluation.

The counseling department identified 70,000 courses from 1,200 schools mapped to SMC courses (MycourseArticulationProgram). However, this mapping doesn't integrate in any way to the degree audit program or the MyEdPlan program. All matching of transfer courses to SMC courses is a manual process for each student. See Appendix A for a sample Future State transcript evaluation map.

Similarly, Corsair Connect, while it contains most links and information students need, is difficult to navigate and lacking functionality. The Home screen is comprised of approximately 50 links to

various campus services and offices. All of the links and information are necessary for students, but the look and feel of the page is dated. Any web page with too many navigation options can feel cluttered and overwhelming, increasing the likeliness that students will drop off or take the wrong path. A good practice is to prioritize the navigation links from left to right with the most important pages at the left. For an information heavy site such as this, focus on high-level topics on the homepage and use a "mega menu" or a drop-down menu to create sub-navigation is preferred.

Many of the tools found on Corsair Connect are fine tools but lack integration with ISIS. For example, Schedule Planner, found via the link in Corsair Connect, is a tool that helps students create their preferred class schedule each semester while allowing students to build in breaks and other responsibilities such as work, family responsibilities, study time, working out, etc. However, the Schedule Planner does not enroll students in classes. The Schedule Planner only allows students to build various course schedule scenarios. Students must take this information and enroll in their courses via Corsair Connect. Similarly, the student-facing version of MyEdPlan is an intuitive tool that allows students to create up to five different versions of a degree plan, all via the student portal.

The daily and weekly time calendar, videos for each possible major and the wizard to add classes to the degree plan are all excellent features of this tool. However, there are no pre-built versions of degree plans. All students start with a blank slate, although there are common courses that are required in various majors across campus. Each course must be manually added to a student's degree plan. Once a degree plan is built, students are not able to register for classes from their degree plan. Like Schedule Planner, students must review the courses on their degree plan, reference it to their schedule planner (if used) and manually enter a four-digit class code to register for each course via Corsair Connect.

When CampusWorks met with students, one of the issues that surfaced occurs when they attempt to change their EdPlan. The EdPlan does not update ISIS which often results in the student operating under an incorrect degree plan. This leads to several issues including student aid eligibility, graduation, and transfers.

There is confusion among new students regarding the functions of the Welcome Center, Outreach and Recruitment, Admissions & Records and Counseling. There appears to be significant overlap in the duties and responsibilities of these offices. In addition, there appears to be role ambiguity at the office level. For example, Admissions & Records works with students who are approaching graduation and verifying graduation eligibility. Counseling also works with students on their degree plan and working to ensure students graduate in a timely manner. Outreach and Recruitment work to enroll prospective students as does the Admission & Records office. The Welcome Center appears to have similar duties as Admission & Records and Counseling, but their services are limited to only first-year students.

There are also duplicate, non-integrated software systems across campus.

Systems Utilization/Proliferation: General (Governance)

During the sessions, the CampusWorks team noted that many 3rd-party software systems have been purchased and implemented at SMC. This practice has led to a proliferation of external systems, many of which do not communicate with ISIS, resulting in duplicate functionalities among the various systems, and redundant costs/expenses.

Software is often purchased without the benefit of business case rigor to determine whether it will solve the identified business problem or evaluation of the total cost of ownership (TCO). There is minimal understanding of maintenance, support, or integration capabilities necessary for efficient

processing. Evaluation of comparable functionality in software already owned by SMC does not appear to be a requirement.

For example, SMC has purchased an SMS texting package through Salesforce. Admissions & Records can text students reminders of various events, deadlines, and lists of documents needed for enrollment. Once the texting job is scheduled, it is generally sent within several hours. However, they generally don't utilize this system. They opt to use the Blackboard Connect emergency alert system to text students since the messages are sent within minutes. This causes issues when students unsubscribe. Students unsubscribe from the early alert system and not the Salesforce system. Students may inadvertently find themselves left out of emergency notices in the future.

Also, Admissions & Records purchased the "Events" module for Salesforce. They currently use it only to register students for campus tours. However, they do not track students who attend via this module. They choose to track these students via a paper method. The robust features of tracking students utilizing Salesforce CRM functionality are not utilized. Additionally, they are in the process of implementing Gecko Engage for event management, email, phone calling lists and texting students. This software mirrors the available functionality in Salesforce. In addition, CampusWorks learned the College just signed a contract for 12 months of Premier support for Salesforce, which will include support and training. It was unclear if the College intends to utilize the additional features in Salesforce or move to the Gecko platform completely.

Finally, prospective students are not loaded into Salesforce. Prospects are maintained in an Excel file and are tracked manually. Prospect records and student records are never merged thus making it impossible to review enrollment analytics. Only after students become applicants are they manually entered into WebISIS again and receive another student ID number that will be used moving forward.

International Admissions

SMC created an International Student Admission Portal (iApp) which feeds data directly to ISIS. This portal has been described by some of the SMC staff as something that they can't live without. This portal provides a significant amount of functionality for the international admissions staff and the entire functionality of iApp may not be readily available in the marketplace.

The iApp portal allows students and/or international agents to create accounts, complete the admission application, submit documents, pay fees and register for information sessions. All communications to students occur and are tracked in this portal. The ability to provide external agents access into the system is something that will have to be addressed in any solution moving forward as it is a huge benefit for the SMC staff and the international students that you are serving. iApp also contains functionality to process required government forms such as the I-20. iApp provides the SMC and external staff the ability to check student statuses, the status of a student's documents and maintain notes and contact information on student interactions.

While the portal was designed specifically to meet the local needs of the College, staff reported some deficiencies of the system that should be addressed moving forward. For example, it is difficult to see unanswered messages from students unless staff directly access a student record. Duplicate name matching happens at the end of the admission process, not at the beginning. The staff does not have a "student view" to assist students who are struggling with technology issues. I-20 form data is tracked in an Excel spreadsheet, and the staff uses this spreadsheet as a trigger to know who to work with. Staff is not able to communicate in bulk to international students. For example, they are unable to send an email message to all students who need to pay the admission fee.

This portal was built specifically to meet the needs of SMC and this functionality may not be found in other Student Information Systems. There are, however, several third-party systems that may replicate most of this functionality.

Financial Aid

Among the most common finds stemming from Program Reviews conducted by the U.S. Department of Education's Federal Student Aid Office (FSA), are matters related to:

- The accuracy and timing of performing Return to Title IV regulations
- Course and program of study eligibility
- Administrative capability – a broad category encompassing many functions

At SMC, through the information gathered by the CampusWorks team in interviews with the Financial Aid office staff, there are several potential risk factors related to compliance with Federal Title IV regulations that are cause for concern.

The SMC staff shared with the CampusWorks team that currently, Return of Title IV (R2T4) calculations, are done manually on an individual basis, using an SMC developed MS Excel spreadsheet. This type of approach for R2T4 calculations is often at high risk due to the manual nature of the work, the opportunity for clerical errors, and oversight of multiple data sources. The concern related to these calculations is heightened at SMC given the current disbursement methodology, which leaves opportunity for students to have had aid disbursed for courses for which they did not attend and/or do not apply to their program of study. Failure to appropriately adjust and/or account for such aid creates the potential for compliance violations on their own and are expounded, if not rectified, at the point of withdrawal thereby affecting the accuracy of the R2T4 calculation.

The FSA Office has increased their scrutiny in the last couple of years of institutions' ability to accurately track and ensure their Title IV eligibility at the time of award, as well as disbursement, and is taking into account the student's enrolled program of study and confirmation that enrollment status in any given academic term or payment period is based on courses that apply to the enrolled program. In short, an institution is required to confirm, both at the time aid is awarded and at the time of each disbursement, that the student is being paid Title IV aid based on courses within his/her enrolled program of study, and not being paid based on any coursework outside of it. At SMC, there is substantial risk in this area based on the information provided. The basis of concern rests on two primary aspects:

- There is a systematic and procedural disconnect between systems of record that would indicate or maintain a student's declared program of study. Specifically, different departments across SMC are looking in different places (Banner, ISIS, MyEdPlan) to determine what program a student is in, and those systems are not dynamically integrated with clarity about their official program.
- Given the intensely manual nature of the disbursement process, the maintenance of disparate, non-integrated, systems of record and the limitations of the current technological solutions, there reportedly is not a way to identify scenarios where a student may be taking coursework outside of their program of study and an ability to accurately adjust enrollment status for financial aid purposes.

The FSA Office's category of Administrative Capability broadly focuses on the institution's ability to adequately operate in such a way as to be able to maintain compliance with federal regulations. Some areas of concern for SMC in this category include the following:

- The disbursement of financial aid and process for satisfying balances owed for allowable charges. Currently, the process that was described to the CampusWorks team was one which included paper checks being issued to students being cashed by the college and additional paper checks being issued to students for any remaining credit. Along with the potential risks surrounding depositing unendorsed student checks, there is a Title IV compliance risk given the timeframe with which the process occurs. The current Title IV regulations surrounding excess cash, the allowable timeframes, and appropriate disposition of cash, are specific and require careful attention to processes to ensure compliance.
- Unclaimed funds stemming from Title IV credit balances issued to students in the form of paper checks that have gone stale are potentially out of compliance. The Title IV regulations stipulate that these funds must be appropriately disposed of within 240 days and may not be escheated. The information provided to CampusWorks indicates that SMC's process, in conjunction with LACOE, may be creating scenarios where funds are not being returned within the mandated time frame.

Consequences for egregious or repeat findings in Program Reviews in areas, such as those outlined above, can be staggering. They may range from having significant fines imposed, being placed on some level of probation such as Heightened Cash Monitoring, along with being required to reconstruct and accurately disposition records going back into past terms. This may ultimately include the institution's loss of eligibility to participate in Title IV programs altogether. Due to the potentially severe nature of these concerns, the CampusWorks team encourages SMC to further explore the processes and controls and may consider an objective, expert third party, to conduct a focused and independent audit to assist in identifying specific areas of exposure.

Student Accounts

Currently, financial aid is awarded and processed in Banner Financial Aid. However, Financial Aid awards are not applied to a student's balance automatically. Instead, a payment file is generated and uploaded into the LACOE PeopleSoft system, where checks are printed. These paper checks are printed by LACOE and then sent to SMC's Fiscal Services office. Fiscal Services generates a list of students with a balance greater than $50 and physically removes the printed checks. The checks are then sent to the auxiliary services accountant. Once received by auxiliary services, aid checks are recorded in SMC's auxiliary services system (MIP) and deposited into the auxiliary services bank account. Once deposited, two checks are generated in MIP – one to SMC for the balance owed by the student and one to the student for the overage. This process is included in the "Financial Aid Disbursements" process map.

SMC is currently implementing Bank Mobile, an electronic payment provider for students. However, because no system manages student billing and receivables, Bank Mobile will simply replace some paper checks to students with electronic payments. Payments to students with balances over $50 will still be identified by Fiscal Services and those payments will not go to Bank Mobile. Instead, they will still be printed by LACOE and rely on the current disbursement process (LACOE printing the check, auxiliary services recording the deposit and issuing a check to the student and SMC).

The challenge presented by the current suite of systems used at SMC is that all the systems touch student billing and Accounts Receivable, but none of the systems are fully equipped to provide robust student account management and billing functionality.

- Banner is used for Financial Aid, but not registration or finance.
- LACOE's PeopleSoft Finance is used for HR and Finance but treats student receivables and payables (disbursements and refunds) like vendor receivables and payables.

- WebISIS provides student registration and does track student balances but does not integrate with either Banner or LACOE.

By having Student Accounts and Billing trifurcated in three non-integrated systems highlights the critical importance of systems fully integrated with Financial Aid, Admissions, and Records and Registration. The absence of a true student account function in a higher educational institution in 2019 is unsupportable. Not only might the current billing, accounts receivable, financial aid disbursement, and refund processes jeopardize a positive student experience, but they introduce internal control and possible compliance concerns.

The implementation of CGI will not address any student billing and receivable issues. CGI does not offer any functionality to help manage student accounts and would only be involved in student accounts if student payments are issued through CGI's AP module. Instead of relying on CGI to issue student payments, SMC does have the option to issue student payments via a payment service like Bank Mobile that would be integrated with CGI. LACOE would then issue a single check for the total amount of student payments to Bank Mobile (or the payment provider). This process complies with LACOE's requirement to have AP in CGI.

Processing of printed checks that represent student Financial Aid awards and passing checks between LACOE or SMC offices is a significant departure from higher educational best practices. CampusWorks strongly discourages continuation of the supporting policies and practices.

Financial Aid awards should be received by the Bursar and directly deposited into the student account. There should be no intermediary steps in this process. As charges and assessments are applied to the account, the current balance should be visible to the student through their student account portal or mobile application. Best practice is to process summary journal entries to the general ledger with the Student AR system recognized as the sub-ledger for all detail.

Student refunds should be processed through an integration from Student AR to Accounts Payable where the mechanism for processing the refund is maintained. Collections associated with the student account should remain with Student AR and not spread across multiple departments.

FINANCE

The primary weaknesses of finance processes at SMC are the heavy reliance on paper forms and the use of Microsoft Excel as a database. Paper forms perpetuate inefficiencies as they must be physically transported, signed, and stored. The information on those forms must be keyed into various systems for processing which increases throughput time, opportunities for errors, and delays in operations.

While Excel is a common and useful analysis tool, using it as a database presents a significant risk because of the difficulty to manage security and the lack of change management controls. Discussed in more detail later in this report, a critical acknowledgment when discussing the current and potential future state finance process is that implementing CGI will not address these primary weaknesses in any meaningful way.

The following discussion focuses on several finance processes that were identified by Fiscal Services staff at SMC as their most significant "pain points," as well as those the staff is most concerned with as they have prepared to implement CGI. In addition to summarizing the current state of those processes, possible improvements are presented that would be available in an integrated ERP.

Budgeting

While LACOE's PeopleSoft is the current system of record for SMC's budgets, all budget preparation is done in Excel. Each year Fiscal Services distributes an Excel sheet with a tab for each department to the appropriate vice president. The vice president's office must then further separate those tabs into individual files and send the information to the budget manager for each department. The budget file reports the previous year's actual expenditures and the current year's proposed budget, with a column for the budget manager to use to reallocate the proposed budget between expenditure lines. When the budget managers have completed their budgets, they submit their requests/reallocations to the vice president's office, who then consolidates the files into a single Excel file to send back to Fiscal Services. To ensure proper review, each vice president then reports a hard copy of their budget, signs the paper copy, and sends it to Fiscal Services to be filed.

When Fiscal Services receives each vice president's budget file, they manually key the changes into their "master" institutional budget file. This master budget spreadsheet consists of a tab for each department's budget by expenditure category. Not only are the values from each individual vice president's budget entered into that master spreadsheet, but the budget values for each department/expenditure combination are rekeyed into a different spreadsheet that is uploaded into PeopleSoft.

Because of the limitations of the PeopleSoft system, Fiscal Services must use Excel for budgeting. While the inefficiencies of needing to use Excel should be clear (time required to send files back and forth, the potential for keying errors, entering the same data multiple times), the lack of useful reporting is a significant result of relying on Excel. Accurate and timely budget-to-actual reports are not available on-demand to budget managers but must be generated monthly by Fiscal Services and sent via email. Further, annual adjustments to budgets – both ongoing and one-time – are only tracked in the Excel budget spreadsheet.

While the budget module in CGI was developed to address some of these issues, the inability for budget managers to directly enter budget requests/reallocations in the system as part of a workflow will continue to require the use of Excel. Additionally, since budgets and expenditures would be tracked in CGI while course scheduling and enrollment data will live in the SIS, there is no opportunity for efficient forecasting and demand analysis. Any analyses that depend on the student and financial data will require exports of the necessary data from the appropriate system and then be performed outside both systems.

In a modern integrated ERP, Fiscal Services should be able to release annual proposed budgets to budget managers in the system. Having assigned budget managers for each department removes the need to send Excel files back and forth, as budget managers can simply view various budget reports in the new ERP and enter their reallocations/requests directly in the system. This action by budget managers can then trigger a workflow that sends the budget reallocations/requests through the vice president (or other defined approval queue) and onto Fiscal Services where the entire budget can be rolled up into the institutional budget. Such a workflow would include approval requirements which can be logged in the system making hard copies of budgets with ink signatures unnecessary.

In addition to making the annual budgeting process more effective, a modern ERP would also significantly improve reporting. The purpose of budgeting is to encourage fiscal accountability and to be responsible for spending. Budget managers must have access to accurate reporting. Timeliness is critical. Easy-to-use dashboards and management reports are standard in most ERPs. They often allow for user-specific queries such as budget-versus-actual reports for a specific time period, expenditure trend reporting, and various other user-defined reports.

Procurement and Accounts Payable

Accounts Payable is one area of financial operations that must integrate with CGI. While in CGI this integration will be able to be a .GAXS file upload into CGI, currently invoices are entered into PeopleSoft manually. Because districts are required to have LACOE print all AP checks, invoice-to-payment reconciliations will likely still occur. However, the current process is so onerous, even performing duplicate processes – once in CGI and once in a new ERP – would be quicker and result in fewer errors. Additionally, having AP information in the ERP would allow for vendor and expense reporting that will not be available in CGI, such as spend by vendor, vendor performance, and discount availability. While payables will not need to be entered one-by-one in CGI and can be uploaded, CGI will not facilitate improvements to the purchase requisition process or procurement/AP reporting.

Currently, purchase requisitions are made on paper forms, including ink signatures on those requisitions. Once those forms have the required signatures, Fiscal Services performs a manual budget check. If approved by Fiscal Services, a PO is created in PeopleSoft by manually entering the requisition information into the system. That PO is then sent to the vendor via printed paper and USPS mail, or printed on paper which is then scanned and emailed or faxed.

Once an order is fulfilled, the invoice is approved for payment. Like the original requisition, these invoices require ink signatures for approval before they are processed by Fiscal Services. Invoices are then entered directly into LACOE's PeopleSoft system, but prior to that are logged into Excel. Because there is so much manual work involved, all Fiscal Services staff are involved in entering invoices into Excel and PeopleSoft. One of the fields in Excel indicates which staff member entered the invoice so when the check is issued by LACOE and sent to SMC (checks are not sent directly to the vendor from LACOE), the check can be verified against the invoice information by a different staff member. To determine which staff member originally entered the invoice, a voucher number on the check must be matched to a batch number in Excel.

The Controller does have the opportunity to "spot check" some invoices before they are approved for payment in PeopleSoft, but because of the volume of invoices and the various locations supporting documentation may exist, only some invoices can be audited. Once an invoice is approved, entered, and payment is made, the paper invoice is filed with the original paper requisition.

As mentioned earlier, checks are printed by LACOE and then sent to SMC to be signed and mailed. Because Fiscal Services staff are entering requisitions and invoices into PeopleSoft, the post-payment review by a separate staff member is necessary to ensure proper segregation of duties.

Having the entire "req-to-check" process in an ERP can be a very efficient process. Requisitions are only entered once (by the requestor) and approvals can occur electronically. Budget checks can also be automatically reviewed in the system, and if dictated by Fiscal Services, requisitions can be automatically denied if there is not enough available budget. While LACOE will continue to print checks, because the checks would be entered into a new ERP by the requestor and approval granted by budget managers, supervisors, and Fiscal Services, the post-payment review of checks would not be necessary (segregation of duties controls will have occurred when the requestor entered the requisition into the ERP).

Making payments to students for financial aid overages and/or refunds is an even more complex process. While moving to Bank Mobile (an electronic payment issuer) will result in some improvements in the student payment process, the full automation of student payments requires an integrated ERP with a sub-ledger for student accounts. The current state of this process, as well as potential future state, is discussed in more detail in the Student Experience section of this report.

Journal Entries

Entering journal entries in CGI is a process that SMC staff are concerned will become *less* efficient than the current PeopleSoft process. While journal entries must be entered line-by-line in PeopleSoft, Fiscal Services is able to use an Excel template and copy and paste data from that spreadsheet into PeopleSoft. Like purchase requisitions and invoices, all Fiscal Services staff members are responsible for entering journal entries.

However, when CGI is implemented, there will be two ways to enter journal entries--neither method efficient for SMC. First, each journal entry must be entered directly into CGI. Based on what SMC staff has seen, CGI does not have a user-friendly interface that will facilitate entry of hundreds of journal entries per week. Alternatively, CGI may accept an upload, but if so, only one file can be uploaded a day. Since several staff members are involved in entering journal entries, an upload would require someone to consolidate everyone's journal entries into a single file. This will add another step to an already burdensome process that decreases internal controls and increases the opportunity for error.

Aside from payroll, neither PeopleSoft nor CGI have subsidiary ledgers that automatically generate journal entries into the general ledger. The use of subsidiary ledgers would be a *significant* improvement provided an integrated ERP. Transactions entered by the bursar's office on student accounts, depreciation and accruals, and other subsidiary ledger activity, could automatically post (after review and approval) into the general ledger.

The opportunity to review journal entries before they post to the general ledger would also be very beneficial for SMC. Currently, journal entries are posted as soon as they are entered into PeopleSoft. If mistakes are made either when they are entered into Excel, PeopleSoft, or from the payroll subsidiary ledger, a correcting journal entry must be made. Modern ERP's place journal entries – especially manual journal entries – into a "pending status" until they are reviewed and approved by someone with the appropriate authority.

Human Resources and Payroll

The Human Resources department is in the process of implementing and testing the CGI HCM (hosted by LACOE) system to replace the current district HRS system. The legacy HRS system will be unsupported as of December 2022. After discussions with SMC staff, several specific concerns related to the future use of CGI were identified and discussed. LACOE and SMC's HR staff were interviewed. The results indicate there is a significant gap between SMC's HR business needs and the functionality available with CGI HCM.

Recruiting

SMC moved from PeopleAdmin to NEOGOV in September 2018. NEOGOV is user-friendly and has tutorials available to support training and user acceptance. The tool has drag and drop capability, supports uploading of resumes will populate mapped fields in the tool. HR has received good feedback from applicants and believes it provides improved customer service. Recruitment management is out of scope for the CGI project.

The human resources team is still working through some processes and implementation, but the staff was very positive about the change and the functionality available with NEOGOV. Shortcomings include:

- Reservations regarding diversity reporting

- A document imaging system that interfaces with NEOGOV. HR is currently relying on Admission's Web-Extender tool for document imaging and retention that does not integrate with NEOGOV
- Integration with NEOGOV is also out of scope for CGI.

NEOGOV functionality includes an HR e-Form module that should be investigated to automate the Personnel Budget Augmentation Request (PBAR) process.

Continued implementation of NEOGOV should be evaluated as a component in the ERP decision. Homogenous systems reduce the long-term cost of support and maintenance. If NEOGOV is incompatible with the ERP selected by SMC, consideration to evaluating a system that integrates more seamlessly with the ERP. Special attention should be paid to those solutions that offer delivered integrations with the ERP.

Onboarding

Onboarding is currently a manually intensive process that requires telephone calls, emails, and printed paperwork. When a new hire is identified, the supervisor initiates a "blue sheet" (paper form) for approvals that include new hire information, the employee's resume, and related documentation. When the "blue sheet" is completed it is then sent to HR and the information is manually entered into both WebISIS and the LACOE HR systems.

The HR department is in the early stages of implementing the onboarding module from NEOGOV. The NEOGOV features a self-service portal which will enable HR to brand the onboarding process with communications and includes SMC's mission and values. They can also configure the portal with checklists, documents, training, photos, and videos. New hires will then be able to complete I-9 and W-4 forms online.

The NEOGOV solution is an improvement as compared to the "blue sheet" process that should be continued to reduce or eliminate paper-based processing.

As discussed in the Recruitment section, the continued implementation and support of NEOGOV should be evaluated as a component of the ERP decision. CGI is not able to address the full onboarding needs of Human Resources and will not provide self-service options where an employee can make updates to their own information.

Benefits Administration

Benefits administration is spread across WebISIS, HRS, and the SMC website for the forms (fillable pdf forms that need to be printed and submitted). The current state process maps and narratives outline the open enrollment steps. Future state maps and narrative outline the desired state and goal.

Benefits administration should be performed in a single system that manages benefit plans, open enrollment, and qualifying life events. Employees should be provided with credentials to select benefit plans during open enrollment. Once they have selected their benefits for the coming year, the system should forward an enrollment verification document to permit the employee to validate their selections and coverages. They should then be provided any required supporting documents based on plan rules. State benefit enrollment can be handled via CGI but voluntary benefits and deductions will continue to have to be done manually. CGI benefit annual open enrollment is out of scope for the CGI project.

Qualifying life events should be addressed similarly. When the qualifying event has been confirmed, the benefits system should permit the employee to alter their plan selections and coverages within the

boundaries of the plan rules. Verification of the changes should be sent to the employee with confirmation about when the changes take effect.

Open enrollment and qualifying life event transactions should be interfaced to the benefit providers and payroll. A minimum of paper documents should be the goal in the administration of benefits.

Non-Instructional Faculty

Counselors and librarians are considered "non-instructional faculty." There are approximately 70 academic administration and assignments that are processed manually four times per year.

- Counselor assignments are created from scratch each semester by putting the individual assignment into an Excel spreadsheet which is then consolidated. The consolidated list is uploaded into WebISIS. Errors are common with this process that must be corrected and manually re-loaded into WebISIS.
- Regular terms and intercessions require different calculations for hours worked. Intercessions are calculated as a percentage of full-time as compared to regular terms.

Non-instructional faculty assignments should be created in the ERP using business rules. Assignment start and end dates, funding percentages or amounts, labor distribution, and related information should be coded into the assignment and process according to sequencing rules. Assignment changes should progress through a workflow for confirmation and approval and then processed into payroll without paper or manual intervention.

Based on discussions with LACOE, this is something that would have to be further scoped and have a process designed to see if CGI could meet the requirements of SMC.

Faculty Workload

CGI is driven by position control and the SMC Human Resources staff are concerned that CGI will not be able to handle assignment and labor distribution requirements common with higher education's instructional functions. Some of the shortcomings noted include:

- Storing of faculty load and status
- Tracking and utilization of banked hours
- Special calculations are necessary to arrive at the correct pay common in higher education

Faculty assignments are processed in WebISIS by Academic Affairs, Student Affairs, and other areas as applicable, and are based on enrollment and scheduling. The CGI team offered to meet with SMC to determine whether CGI could be modified to support faculty workload requirements. CampusWorks is concerned that customizing CGI will represent an ongoing maintenance and support issue.

Faculty Leave of Absences

When faculty take a one-day leave of absence, a paper form is completed by the department that tracks it. They then submit a monthly report to HR with the leave hours and corresponding hours to pay the substitute. Faculty who require more than one week of leave time are required to contact HR regarding the process to follow that varies according to the type of leave taken. Academic Affairs may be required to adjust the assignment depending on the leave type and duration. Currently, they are unable to remove a faculty assignment until after the original instructor becomes a non-employee.

Long-term substitutes are part-time faculty who teach a full load during a semester. State statutes state that part-time substitutes are eligible for tenure track if they teach a full load, thus becoming a long-term substitute, twice in three years.

Both leave of absence tracking and long-term substitute processing should be managed through workflow processing and business rules embedded in the ERP. Faculty members who take leave should be required to complete an online form in the ERP that submits the leave request and processes required approvals. Once a substitute has been identified, the workflow should process the hours worked into payroll. It should also track their status towards eligibility to become a long-term substitute. Business rules configured in the system and workflow should guide faculty to the necessary steps to properly record their absence based on the type of leave and duration without requirements for paper forms or departmental reporting to HR. A self-service portal or mobile application should eliminate or significantly reduce the need for paper forms and signatures.

Based on discussions with LACOE, this process would have to be scoped out to see if it could be handled within CGI and without integration with a new ERP, the process would continue to be a very manual process.

Faculty Flex/Office Hours

When an assignment is put into WebISIS, the flex and office hours are automatically assigned to the faculty member.

- The number of office hours per instructional hour is based on contract agreement (i.e. 10.5 minutes per hour for some contracts, 15 minutes for other contracts, etc.). Office hours may be specific to the course and can be entered by the faculty member into WebISIS with limitations.
- Flex hours are professional development hours. There is a state requirement to dock faculty pay if flex hours are not completed. However, SMC is not compliant with the law due to known issues with flex hour reporting and a lack of a feed to payroll.
- This requirement is also not supported by the CGI system being implemented by LACOE.
- If the new ERP solution contains the fields that are required to process these and those data fields are available in CGI, integration could be possible.

Flex and office hours should be created in a new ERP with assignments linked to faculty using business rules appropriate for their specific course or contract. Professional development hours should also be tracked automated notifications sent to the faculty member and Dean or Department Chair as deadlines approach. Business rules should include the ability to withhold or dock pay when staff development requirements are not met eliminating the need for manual intervention to track and submit pay adjustments.

Student Employment

Student Employment

Student employment is tracked in three systems: WebISIS for the student record, HRS for the student employment record, and Banner Financial Aid for the student financial aid record.

Human resources staff enter student employment records for *all* students approved for financial aid in the HRS system regardless of whether they have applied for student employment. The staff receives stacks of paperwork which they separate, verify, and manually enter into HRS. Based on CampusWorks' understanding of the policy, all financial aid receiving students are added to HRS in case they need to be paid.

The human resources staff are doing unnecessary work that takes considerable time and effort and is highly inefficient. Requirements for student employment should include the following:

- The ability to post open positions to which a student can apply and receive a pre-employment review and interviews
- The ability to offer a student applicant a position under the appropriate guidelines and funding
- Once accepted by the student, the ability to convert a student applicant into an employee with a limited term of employment
- The ability to provide the student employee with access to automated onboarding documentation and access to required documents to complete and return to HR. Pre-configured workflows
- The ability to record and track student employment hours according to Federal Student Employment guidelines for those to which the guidelines apply
- The ability for a supervisor to approve time entry and submit the approved hours to payroll for payment in the next cycle

The practice or policy of processing all financial aid receiving students through HR as employees should be discouraged as unnecessary.

In part, CGI will be able to process student employment. Currently, student workers are input into the HRS system and they will be in CGI, but without integration with the new ERP solution, student financial aid limits etc. would need to be tracked manually. NeoGov can address the recruitment piece of student employment.

Time Recording and Leave Tracking

Paper timesheets are completed by student workers and temporary employees. The timesheets are then forwarded to their supervisor to review and approve. The supervisor passes the approved timesheet to a time-keeper who enters the hours into WebISIS.

In CGI, it was noted that time-keepers will have access to enter timesheets directly. It was also noted that temporary and student workers "could" have access to CGI to enter their time directly. However, this is functionality SMC is not intending to implement.

All other employees submit exception time to their supervisor for approval. The supervisor approves the paper time sheet and, again, pass it to time-keepers who record the exceptions on an Excel spreadsheet. The spreadsheet is then forwarded to HR to track leave accruals and usage. Human Resources inputs the leave accruals and usage into yet another spreadsheet.

Time should be entered by student workers and temporary employees into a time tracking system and routed to their supervisor for approval. Once approved the time sheets should be fed to the payroll system. Retention of time-keepers to perform duplicate and redundant manual steps should be discouraged.

Leave accruals should be calculated by the HR or Payroll system rather than on spreadsheets. Leave balances should be adjusted through the time entry process and maintained by the system. Spreadsheets should no longer be the source for either calculating accruals or maintaining balances.

Employee and Manager self-service sites and mobile applications directly linked to the ERP should permit either the employee or manager to submit leave requests in advance, review balances, and manage unexcused absences. Continued use of spreadsheets and manual tracking by time-keepers and HR should be eliminated.

Performance Reviews

HR generates reports from WebISIS that list the employees who are due for performance reviews. Reviews are due from some employees on different timelines due to contract provisions that are not always tracked correctly in WebISIS. For example, adjuncts are evaluated twice in the first four semesters they teach regardless of how long it takes to teach four semesters. Supervisors receive an email from HR when an employee is due for an evaluation.

Self-evaluations are paper forms that the employee must complete. Employees are encouraged to complete an evaluation every year but are only required to complete one every three years. Supervisors complete the review and forward the document to HR. Human Resources enters the rating and date, and, where applicable, the semester in WebISIS. The paper review is then filed in the employee's personnel file.

Student evaluations of faculty are also tracked in WebISIS. Student evaluations of online instructors are completed in Canvas while classroom instructors are reviewed using paper scantron forms—per contract requirement. HR creates packets of scantron forms for each course which are sent to the instructor to distribute. Students complete the scantron forms and return them to the instructor. IT scans the forms and WebISIS is updated with the results.

The new ERP system should provide employee and manager self-service applications to notify both when a review is due. For those that complete self-evaluations, the employee can login to self-service, complete the review and forward it to their supervisor electronically. Once the supervisor has added their comments, ratings and electronic signature, the review can be routed back to the employee for electronic signature. The employee can finalize the supervisor's version and affix an electronic signature. The full completed review should be stored in the HR system records and available to be referenced by both the manager and the employee during future evaluations.

The system should permit a flexible configuration of the review content. The ability to tailor evaluation questions and ratings to meet differing performance review methodologies for discrete groups, such as faculty, is a necessity. Mobile applications or portal forms should replace scantron forms for student reviews of instructors. Business rules should assist with identifying when individual faculty or staff should be reviewed and inform the individual and their supervisor of the expected date for completion. The business rules should be tailored to support the myriad of review schedules necessary in higher education.

The intensive use of paper documents by SMC represents an opportunity to automate a process that is currently confusing and includes significant manual interventions. In addition, performance management is out of scope with the CGI project.

Payroll

Payroll generates reports from WebISIS (MyTime and assignment information) and enters hours from the green bar reports into an Excel spreadsheet *and* into HRS. Payroll, then, runs a report and manually checks the previous report against the current report to see if there are discrepancies. Following this step, the spreadsheet is updated and uploaded into the HRS system with corrections. Payroll uses the spreadsheet to reconcile totals to the data entry.

There is a multitude of duplicate manual steps inherent to SMC's current payroll processing that should be eliminated or significantly revised. As described in the Time Recording and Leave section, time and leave entry should be entered, approved and fed to the payroll system for processing. Validation reports that utilize business rule logic should identify time sheets that fall outside of standards. Supervisors can be notified of timesheet exceptions to call their attention to the issue(s) and resolve these issues at the point of entry.

Maintenance of duplicate spreadsheets from multiple sources should be eliminated from payroll processing. The source record for all employee pay should be the time sheet for all hourly workers. The exception time entry should be the document of record for all employees who report on that basis.

CGI will be able to process time for employees if that feature is enabled. Faculty hours could be uploaded into CGI instead of being manually entered.

CGI Functionality Grid

Below is a chart of CGI required to use functionality, optional to use and out of scope functionality that may provide additional guidance when determining where best to perform certain tasks.

Component	Required to Use	Optional to Use	Out-of-Scope
Personnel Management	○ Training profile ○ Employment eligibility verification ○ Competency profile ○ Attributes ○ Address maintenance ○ Work data ○ Employee status maintenance	○ Education history ○ Emergency contact ○ Pass information	○ Self-performance evaluation ○ Personnel action request ○ Recommendations ○ Performance expectations ○ Performance evaluations ○ Incidents ○ Grievances ○ New employee wizard
Recruiting & Staffing	○ Employee tax ○ Position profile ○ Pending deduction ○ One-time deduction ○ Garnishments ○ Miscellaneous deductions ○ Dependent profile ○ Dependent benefits ○ Benefits enrollment	N/A	○ Recommended applicants listing ○ Job vacancy notice ○ Job management ○ Recruitment management
Position Control	○ Position authorization maintenance ○ Position maintenance ○ Position related documents	○ Position authorization maintenance by group	○ Position description ○ Position distribution profile maintenance
Manager Self-Service	N/A	○ Document approvals ○ Work schedule change ○ Organizational chart	○ Employee changes ○ WCB claim

Component	Required to Use	Optional to Use	Out-of-Scope
Employee Self-Service	○ Personnel information ○ Benefits information ○ Pay stubs ○ Leave balances ○ W2	○ Paycheck calculator ○ W4 ○ Work schedule change request ○ Direct Deposit ○ Timesheets ○ Employee education history ○ Employee competency profile ○ Employee training profile ○ Licenses/certifications ○ Emergency contact ○ Change address ○ Employee name/SSN ○ Overtime request ○ Leave request	○ Benefits enrollment ○ Travel reimbursement ○ Training reimbursement request ○ WCB claim
Payroll Processing	○ Supplemental pay ○ Retroactive pay ○ Regular pay ○ Pending payments ○ One-time payments ○ Overload payment generator ○ Online check ○ Net pay distribution ○ Contract/reserve pay ○ Check disposition	N/A	N/A
Benefits & Deductions	N/A	○ COBRA processing ○ Beneficiary designations ○ Savings bond deductions	○ Reimbursement account claim ○ Workers' comp processing
Time and Leave	○ Automatic leave accrual ○ Work schedules ○ Manual leave accrual ○ Service hour adjustments ○ Timesheet adjustments	○ Timesheets ○ Group timesheets ○ Overtime request ○ Leave request ○ Leave banks	N/A
Reporting	○ Retirement contribution ○ PERS/STRS reporting ○ W2 & W2-c ○ Form 941 ○ Form 1099-R	○ Printing W-2s ○ ACA reporting	N/A

Component	Required to Use	Optional to Use	Out-of-Scope
Payroll Accounting	○ Labor distribution profiles & adjustments ○ Payroll documents to finance ○ Payroll vendor payment request	○ Employee event accounting ○ Payroll account reconciliation	N/A
Advantage Case Monitoring	N/A	○ Electronic personnel request (ePR) ○ Checklists	○ NeoGov integration

REPORTING

A profound shortcoming of the ISIS system is that of reporting. The primary focus of reporting to date has been accessing data to enable day-to-day operations with limited capacity to develop analytical reporting. The impact on operations has been exacerbated by the inability of end users to create their own ad-hoc reports. While end users can apply various filters to data, the ability to create even simple queries at the end user level is impossible. Any reports or queries, outside of the delivered reports in ISIS, must be requested through IT. End users report that it takes multiple days between the time they request a report and then receive the report(s). Because of the known delays, users either do no request the report in the first place or the data has changed making the report obsolete.

Reports are normally delivered via "green bar" paper which precludes most common forms of analytics. End users may request an electronic "data dump" of all current student data. However, the data is delivered in a flat file which makes complex analytical reporting difficult.

Reporting ability is inconsistent across functional offices. The counseling office tracks every contact by type. The contact type is a drop-down option in ISIS and all types were listed in this field. In contrast, the admission & records office tracks interactions on paper with "tick marks."

Both the current LACOE PeopleSoft Finance module and CGI are very limited in their financial reporting capabilities. Not only do they not offer the flexibility to create and/or edit reports in a way that provides necessary financial information for SMC's required reports and filings, but the actual access to the system is limited. The current PeopleSoft production environment "turns off" weeknights at 6:30 pm, Saturday at 3:00 pm, and is not accessible on Sundays. While reports can be generated during those times, they are based on prior day numbers. In CGI, the production environment will be available a half-hour more on weekdays (until 7:00 pm), but when production is not accessible, reporting will also not be accessible. For staff members that rely on information that is accessible and accurate – especially during the month and year-end periods – limited access to data is a significant weakness.

The advantage of an integrated ERP system is the accessibility of data throughout the institution, as well as user-friendly reporting tools and dashboards. Most commercial ERPs have dashboards that provide important summary information, security roles that facilitate the right people having access to the right data, and the ability to generate custom reports that decrease or eliminate manual calculations and/or analyses.

INFORMATION TECHNOLOGY / SECURITY

Santa Monica College is using a legacy system for the Student Information System, that was built 33 years ago and continues to be maintained by the IT department. The system supports admissions, enrollment, catalog, scheduling, curriculum, and others – most of which are functional. Many customizations are built around the needs/desires of one person in a department, and that knowledge is often not passed along to others. When that person leaves the college, the customizations can become problematic since very few users understand the value.

The IT organization at Santa Monica College includes over 50 positions. The MIS Department has 12 programmer analysts (including two vacant positions), a MIS Manager and a vacant MIS Director that supports the WebISIS product development. Other departments include Network Services, AV/media, Academic Computing, switchboard, and Technical Support Services. Discussions with the IT staff indicated that approximately half of IT is ready to retire, which could be a significant problem, especially when combined with the lack of documentation.

Documentation is not available, because "there is no time to document, so there is no documentation." With many of the legacy SIS modules, the logic related to the inner workings goes with the programmer and there is no documentation available. Functional users do not understand the logic (and may not need to understand the system to that level), but they will often come to IT to figure out what they need to know.

IT has implemented a process that requires all requests for IT support to start in Spiceworks, their ticket system. Requests are sent via email to ithelp@smc.edu, where the request will be logged and assigned to an IT staff member. Users can track the progress of their request with the system, and the IT staff can assign the request to the appropriate individual, including the MIS staff for work related to WebISIS. Users will sometimes circumvent the system and go directly to the appropriate IT staff member, so on occasion, some requests are not logged.

There is a Service Level Agreement (SLA) available that sets standards and defines a best practice approach to managing technology resources. The goal for IT is to use the agreement as a measurement of effectiveness for the services provided with the intent of continuously improving overall performance. The SLA covers prioritization, scope of services and those out of scope, how to request service and project requests. There are also standards including security standards and end-user responsibilities. It is not clear if this document has been shared with the campus community, or if the end-users are aware of the expectations.

When it comes to projects, there is a project prioritization matrix in use that helps identify the priority of each project. The matrix includes the following:

- Priority 1: Legally Mandated or State Requirement
- Priority 2: Leads to the sustainability of WebISIS
- Priority 3: Aligns with Pathways
- Priority 4: Aligns with DPAC Objectives
- Priority 5: Operational

The college has some major initiatives underway, which will affect IT because of the customized nature of the system, and the prioritization matrix above reflect these. Policy changes are made to help run the institution and meet the needs of students, but they also have a significant impact on development. From the IT viewpoint, it appears that nobody understands the "impact these changes have on IT" when the decisions are made. IT does use business analysts to help manage the change, which also helps on documentation. However, there is a need for one person who can oversee

change requests and work with the departments and individuals to explain the ramifications of the changes.

Other applications in use around campus include:

- Microsoft Office365 email is for faculty
- Gmail for students
- Office 365 apps for everyone (Microsoft)
- Heartland payment gateway
- Coursera for online courses
- Instructure Canvas is the learning management system
- CleanAddress to validate addresses
- SIRSI for Library operations, although there is a move to ALMA coming
- NEOGov – software for human resources
- Maxient to manage behavior records/student discipline
- Career Coach to assist admissions help students understand their potential career
- QLess Line Management for queue management and appointment scheduling
- LiveSafe for personal safety on campus
- College Central to help link employers with prospective job candidates
- Blackboard Connect for emergency messages
- CurricuNet to manage the course and program changes (part of the California Community Colleges Chancellor's office)

Discussions with the IT staff, including the CIO and the MIS Manager revealed they believe that IT is the glue to hold things together. IT can see the bigger picture, but the individual departments cannot, so IT is impacted by all college changes that occur.

WebISIS Application Development

The current underlying technology for the student system is based on Oracle Forms, which is an aging technology that originally reached end-of-life status in December 2018 but has since been extended by Oracle. To ensure viable business operations and extend the lifespan of the WebISIS, Oracle Forms are being redeveloped using Oracle Apex technology. The need to move away from Oracle Forms is not a new revelation; the IT staff has known this for many years and just recently began a project to make a move. The barrier in the past has been the enormous amount of forms that need conversion, but the current MIS Manager has determined there are only about 150 of the 600+ forms are used heavily and require the most immediate transformation.

Behind the scenes, APEX is not the right choice because the form is stored as part of the Oracle database, which is not a good practice. The ideal solution would be a move to a solution that is independent of the database, but with the replacement initiative for the ERP, the move to APEX is an appropriate short-term resolution. The MIS staff understand and recognize it does not create much value, but it will extend the life of WebISIS until a commercial system can be implemented.

Reporting is controlled completely by IT, and they are responsible for creating all the reports. Users request reporting needs, and an IT staff member creates the reports. Institutional Research uses a database for producing reports and is also using Tableau, which has created dashboards on their website and made all areas desire new dashboards. Data for the database in use is provided by IT, and with the requests for more data increasing, scripts are being written to move data.

In addition to reporting for on-campus needs, MIS also uploads 19 different files, at different intervals, to the Chancellor's office (California Community College System) for required reporting. Some of these files contain incorrect data which must be corrected and uploaded again.

When asked about the use of shadow systems, the immediate reply was that they do not exist because users do not have direct access to the system. In discussions with other areas, it was evident that departments actively maintain local spreadsheets and other documents to track items like certifications and time/attendance. Members of the IR/IE staff confirmed the use of shadow systems.

The conversion of forms and reports to APEX provides the IT Staff an opportunity to work with the end-users and modify their forms and systems to be more productive and more efficient. It is a slow process and will take some time to complete all areas in the College, but it buys some additional time before the product reaches end-of-life.

WebISIS uses web forms that are no longer compatible with Firefox and Chrome – so they push an icon to ensure users have access from their office computer. It includes portals for both faculty and students, designed in APEX. The faculty portal has everything online, while the student portal is a combination of information requested from the various departments, although there is no process to handle these types of requests. The portals also include a multitude of forms, some of which are pre-populated.

> The IT staff admit there are issues with testing, usually the developer tests their program but end users do not spend enough time testing the program in DEV environment. The perception from some users there are times when new items hit production that nobody has seen and thus has not been thoroughly tested. For example, during a discussion, a comment was made that an item was not available, and another analyst spoke up and said that was incorrect and the feature had recently been released and implemented. While everyone was happy with the change, it supports the fact that changes will hit production, and nobody knows it has happened.–There is a great need for procedures for new development and a release process for managing updates/changes from the test environment to production.

Overall, the IT team feels that WebISIS is working well and that it provides a solid database where data is the core.

WebISIS Technology Components and Security Issues

On the server side, Santa Monica College runs a mostly virtualized Red Hat, HP Unix, and a VMWare environment, with ample storage and 48 servers that support everything on the MIS side (see diagram below). The systems are load balanced, except for the database server, which is a single instance on a single database. There is a project underway to upgrade the database server. Performance is an issue, and at the beginning of each semester, emails are sent to remind users not to run certain processes or reports. The long-term hardware solution could be a cloud solution, but it would be a major project to move everything to the cloud. Care must be taken with this type of move as there are several hook-ins with third-party systems in use today.

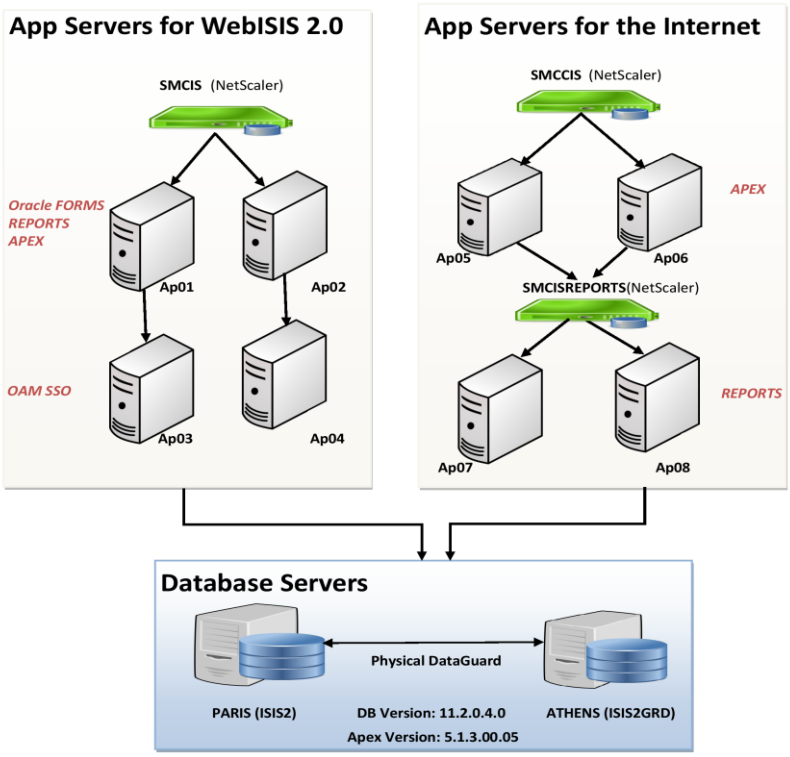
Santa Monica College uses Heartland for their payment gateway, which processes all payments on external systems for the college. There was **not a clear understanding** of whether credit card numbers are stored in WebISIS or other third-party solutions in use, an issue which needs further investigation. Per end user's request, last 4-digits of the credit card are stored.-If credit card numbers are stored, there is a potential issue with the payment card industry (PCI) regulations, and the college

could be violating PCI requirements. CampusWorks highly recommends this practice is stopped if credit card information is being stored.

Financial Aid is not part of WebISIS and runs an instance of the Ellucian Banner product. Financial Aid interfaces to WebISIS as needed. The college only uses the Banner Financial Aid module, but IT supports the entire Banner product to ensure that Financial Aid works appropriately. In the past, IT has been very involved in the Financial Aid area, but with the purchase of Banner, it appears that the Financial Aid area has operated with very little support from IT.

Because of the various systems in use throughout the college with third-party solutions, Financial Aid, LACOE, and other entities, moving data is a major process that needs to be managed. For Santa Monica College this has been somewhat automated with the use of Cron jobs that run regularly to copy and move data. The staff is aware that migrating to new systems could easily break any integrations already in place, particularly with the third-party solutions in use.

Backup servers are in the same vicinity as the primary servers, which creates the potential for a major problem should a disaster strike Santa Monica College. Tape backups are completed nightly and stored with Iron Mountain. However, there is no clear disaster recovery or business continuity plan in place.



Account Management and Security

There were security issues encountered during the CampusWorks visit. The college does not have an Information Security Officer or a security policy to enforce across all areas (the ISO position is pending approval). Data breaches are a concern for Santa Monica College. WebISIS does not provide the level of security that a new modern ERP system does.

Accounts and authentications are handled differently for each constituent group, and the student portal, faculty portal and WebISIS all use different authentication methods. The goal is a single sign-on solution, and work is planned to move that way. In the meantime, the student portal uses a

homegrown identity management system, the faculty portal uses active directory, and WebISIS uses Oracle Access Manager and AD for authentication. Students receive a letter with information on setting their password, so they get to decide their initial password (initial password for Student Portal is their dob for them to login to go through the IM process. During the IM process they set their initial AD password) .

The student account provisioning process stores the password in the database in clear text (no encryption) along with some security questions—a clear violation of standard security protocols. If a student forgets their password, they can enter the "forgot password" process and answer two of their three security questions to see their password. Students who might need to change their password can work with admissions to reset the password.

The college does deal with fraud issues related to new accounts. This process would typically involve outside entities applying for admission to create accounts that they could then be sold to others. These accounts have access to a variety of software, such as Microsoft Office applications, which makes the accounts valuable.

When personnel leaves the college or transfers to another department, no immediate notification is sent to the MIS area. The lack of notification means that obsolete permissions are not removed, or old permissions remain in addition to new ones that might be assigned. Notification is sent to Network Services about the change, but that information does not make it to the MIS area who control WebISIS permissions.

Social security numbers are validated based on rules from the Social Security administration before being saved in the database. However, student social security numbers are stored in clear text, making the fears of a data breach even greater. Employee data is encrypted but encrypting student data would require major changes to several existing programs.

There are issues with duplicate ID's across campus based on various factors. These records are manually merged or purged as needed.

Technology Governance

Santa Monica College has established a District Planning and Advisory Council (DPAC), which includes a Technology Planning Committee (TPC). The TPC meets monthly, and the Chief Director of IT is a part of that committee. While the TPC's focus is primarily on faculty issues, they also focus on issues such as mobile technology, security, and digital content. The latest published goals also include a goal around evaluating Enterprise Resource Planning solutions to replace existing homegrown legacy systems. Other recommendations of relevance to this analysis include:

- Responsive applications that accommodate the increasing use of mobile devices
- The creation and adoption of an information security policy that follows current best practices
- The creation of a list of single sign-on applications and a plan for their integration
- Developing and adopting a comprehensive Master Plan for Technology to identify the current technology landscape at SMC and plan for future hardware and software needs over the next five years

CampusWorks could not confirm the presence of a master plan for technology, but the technology objectives for this fiscal year were provided. Included in those objectives are 44 projects broken into the various area of the IT department. From this list, almost half (45.5%) are continued from last year and 20.5% show as "Completed". Only one has been "Cancelled", one is in the "Implementation Stage", one is "Nearly Completed", one is "Pending", and one is in the "Approval

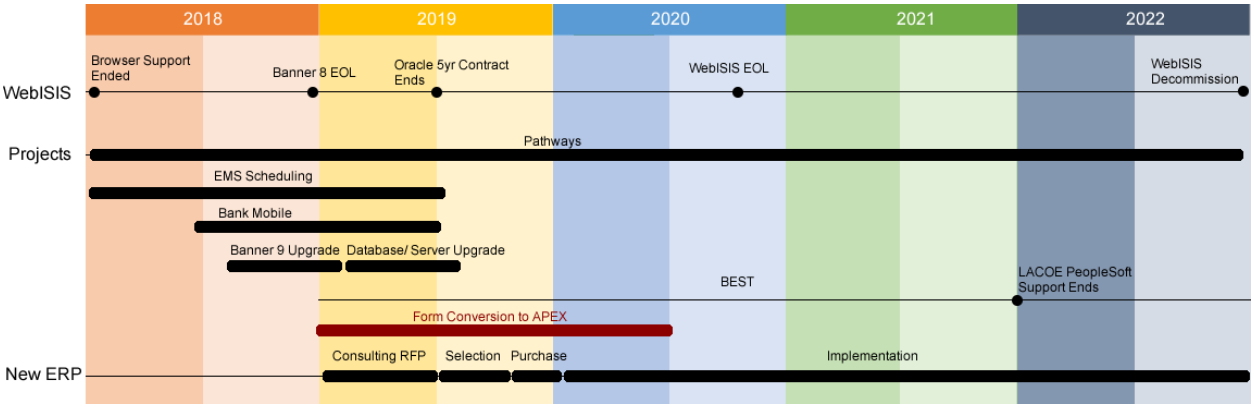
Process". Of the remaining projects, 18 (40.9%) are "In Progress", while five (11.4%) are "Ongoing" projects that will span multiple years.

Analyzing just the MIS projects, the picture changes. With 10 projects on the list for this fiscal year, 50% are "In Progress", and 20% are "Completed". The other projects indicate that one has been "Cancelled", one is in the "Implementation Stage", and one is "Nearly Completed". Every project on the list for MIS has been continued from the previous year.

The statistics on the MIS project list are concerning and reflect a lack of staffing, the inability to control changes to the student system, and a lack of procedures for testing and moving items to production. The analysis also supports the desire to move to a commercial ERP system. With half of the staff nearing retirement, and the skills needed to support WebISIS being more difficult to locate, a further reduction in staffing could put the future of WebISIS at serious risk. As one participant said, "People have not grasped that this needs to go away."

Santa Monica has recognized the risk that WebISIS brings and instituted a plan to review options of which this review is the first step. An ERP Steering Committee has been established with members of the leadership team. However, for this project to move forward, there is also a need for a strong executive sponsor to support the project. The reality is that IT can make the right technical decision, but there is an inability to control the process decisions.

The timeline below shows the current thinking in IT on the WebISIS replacement. CampusWorks has also provided a timeline that integrates the efforts related to Finance and HR/Payroll, and that is available in the Recommendations section of this document.



Evaluation of Alternatives to Third-Party Software

BUILD VERSUS BUY

CampusWorks has worked with several clients who have been faced with the decision of whether to "build" their replacement ERP systems or "buy" from third-party vendors. An offshoot of the "build" approach is the concept of enhancing legacy software to meet institutional needs. In virtually all cases, the "enhance" version of build would require a significant level of re-architecture, design, and development, to meet institutional needs. The ongoing needs to maintain and continue to enhance the build can also be massive undertakings that are often forgotten during the initial design and create stages.

The primary reasons clients opt to consider building software fall into the following categories:

- Perceived cost is lower than third-party software
- Custom software works how they want it to process, e.g. preserve "our way" or "we do it better than the third-party software does."
- Speed of delivering new or emerging requirements

A further complication to the "build or enhance" approach is building a custom Financial Aid system is a virtual impossibility for a single institution. Requirements for hiring and retaining skilled talent are discussed throughout this section as an overarching impediment to the "build" approach. The pace of change of regulations, the cost of resources with full knowledge of the regulations, and the potential cost of non-compliance simply make it an unreasonable undertaking to consider.

Our experience with clients who choose to build or enhance their legacy software is, over the long-term, neither perception proves accurate and for many reasons.

Perceived Cost

Core Competencies—For virtually every higher educational institution, large scale software development is not a core competency nor a part of their mission. Contemplating the development or redevelopment of a major software system becomes an overwhelming undertaking given the magnitude and scope of the requirements. The breadth of resources, knowledge, and skills necessary to architect, design, and develop an ERP is beyond the capabilities of even the richest or technology savvy schools. The scope of the project distracts the leadership and staff from their educational mission and results in doing neither effectively.

Resource Costs—The cost of experienced and knowledgeable resources to architect and design an ERP with multiple components (SIS, HR, AR, Finance) are expensive and scarce. Presumably, SMC does not currently have such resources on staff and would have to hire them. The college will be competing with highly competitive companies such as Oracle, WorkDay, and others who have very deep pockets and can offer salaries and benefits far superior to SMC to hire and retain personnel.

Software development is never a "one-and-done" proposition. Software must be constantly improved and enhanced to stay current with legislative changes and evolving requirements due to rapidly evolving trends in higher education. Retaining talent, assuming it can be initially acquired, is beyond the capabilities of virtually every college or university.

Ongoing Support and Maintenance—Even the best software development organizations find software bugs--some large, some small. Software vendors maintain expansive staffs of knowledgeable resources who are dedicated to addressing software issues. This cost is funded through annual maintenance fees whose cost is spread across multiple clients. In a custom software environment, the

full cost of supporting and maintaining custom software falls to the institution with no economies of scale. This is generally an expense that few colleges and universities can afford on a long-term basis.

Flexibility—Vendor software is designed to offer flexibility through configuration options and functions that may not fall within the initial needs of all institution. Custom software is most often designed specific to process requirements. Consequently, when requirements change custom software must have technical resources review and change coding to address the issues. This is inherently an expensive proposition that delays time to delivery and reinforces the need to retain expensive resources to address necessary or desired enhancements.

Security—Architecting secure software that is compliant with current and future privacy laws and standards is complex. In the reviews of SMC's legacy systems, numerous examples of data security issues were identified including unencrypted accounts and passwords. These issues highlight the difficulty with maintaining software that is both secure and useable. Vendors monitor security standards and maintain it to be compliant to remain competitive.

Documentation and Training—With custom software development CampusWorks rarely finds that documentation has been created and maintained over time since most time is spent on development and maintenance. This issue was highlighted in the Technology section of this document. Even when it is a consideration, maintaining current documentation is costly and is most often ignored to keep costs reduced. Over time, the knowledge of the internal workings of the software is lost due to attrition or retirement. Training is performed by "word of mouth" rather than a thorough explanation of the workings and options of the software. This results in gaps in expertise and significant exposure to the institution that the knowledge to sustain the system is unavailable.

Reporting—Virtually every CampusWorks client has significant issues with reporting. This issue is especially dominant, as it is at SMC because the custom software was architected to support business processing and little thought was given to making the data available for reporting and analytics. CampusWorks has yet to find a custom software solution that has solved this critical requirement.

Software vendors were also initially guilty of the inability to meet flexible reporting requirements. They have almost universally responded with solutions that offer clients options for both strategic and process verification reporting. While the solutions vary by vendor, competitive pressures have forced vendors to offer relatively low cost and expansive reporting capabilities to meet client's needs including operation data for process verification, and data warehouses for strategic reporting.

Systems Integrations—Designing a system that is flexible enough to facilitate integrations with systems external to the ERP is a feature most modern ERP systems natively provide. Standard API's and open procedures are a common feature rarely found with custom software. To reduce cost, custom systems focus on bare-bones processing and closed architectures making it difficult and costly to import or export business data. The ability to integrate securely and cost-effectively represents another example of a cost escalator for custom software.

Custom Software "Works the Way We Want it"

Business Process Proficiency—One of the most predominant themes encountered in working with clients is poor quality business processes. Institutions presume theirs are sound despite known issues with manual interventions or extensive manual exceptions that increase processing cost. Poor satisfaction surveys from stakeholders are indicative of these issues, yet institutions generally fail to take appropriate actions to address the fundamental reasons they occur.

In a custom software environment, the same poor-quality processes are architected into the software that plagues the legacy software. Users insist that the custom software process is similar to "how

they have always done it." It is "what they know" so they propagate the same poor-quality processes into the custom software. The result is they execute the same bad business processes faster rather than improving efficiency and achieving cost reduction with the "improved" custom version.

Software vendors almost universally monitor leading business processes and practices and incorporate new initiatives into their software. The ability to demonstrate compliance with leading business processes is a competitive feature for vendors to remain relevant in the marketplace.

Competitive Benefit—Numerous articles have been written about the benefit of focusing investment in the development of tools that offer a competitive advantage to the brand. These books and articles also extol the virtue of cost control of back-office operations through efficiency. They argue that little benefit is gained by developing the best ERP system in the world; however, much can be lost when doing it poorly.

SMC's consideration for the development of a custom ERP system falls very clearly into the category of the latter. Very little benefit to the SMC brand will be gained from building new custom ERP software or enhancing the existing. SMC should focus alternatively on procuring ERP software that performs the necessary business functions securely and efficiently. It should be implemented to eliminate inefficient business processes and become the repository for consistent institutional data.

Political realities in higher education—The biggest barrier to both custom software development *and* vendor software implementation can be the politics on campus. Institutions simply have a very difficult time making timely decisions. Further, once decisions are made, they have a very difficult time preventing significant requirements changes long enough for custom software development or for the implementation of vendor software. The recommended solution to this issue is discussed in detail in the Governance section.

The benefit of a 3rd party system is there are only so many options that can be evaluated without it requiring significant customization. In a customized environment, the propensity to constantly change or modify requirements is rarely curbed effectively. "We have to have it this way" combined with "it has to change *before* we can use it" is a recipe for project failure.

Speed to Deliver Emerging Requirements

"Conceive today, production tomorrow"—The ability to quickly respond to perceived processing improvements is often cited as a benefit to custom software and a negative to vendor solutions. CampusWorks has experienced clients who literally conceive improvements to their ERP, code the enhancements, and placed into production the next day. This concept strays substantially from accepted release management practices by all IT standards organizations.

This approach is often short-sighted and rarely solves the intended business issue. When vendors contemplate the addition of functions into their systems, they seek to clearly define and understand the business problem before a solution is proposed. Design begins when they have determined how the software will support the business problem's solution. Custom built client software rarely involves the rigor to understand the problem, rather they drive directly to a solution before the scope is clearly defined. This approach results in maintenance and support issues long-term and results in a poor investment that is quickly discarded when "it doesn't work the way we need it" or the driving stakeholder moves to another role.

In this section, CampusWorks offers the experience with the "build vs. buy" options that SMC must consider in determining their ERP future path. We have yet to find any college or university who has successfully navigated either a ground-up ERP development or existing ERP enhancement project

without significant ongoing development and maintenance that is usually not quantified appropriately in terms of costs.

- The cost and complexity of modern ERP software are significantly beyond the core competencies and resources of higher educational institutions. Business cases repeatedly prove it is a poor investment in scarce resources. Respected third-party research firms such as Gartner and Forrester also support this recommendation.
- Custom or custom ERP enhanced software, in past experience, propagates poor business processes and practices.
- The "speed to delivery" is very rarely validated by the result. Most result in poorly conceived customizations that are based on a lack of understanding of the business problem and how to solve it. Clients who undertake such projects suffer repeated project delays and cost overruns that negate the benefit they are attempting to achieve through custom development.

Finally, software is a tool. Tools are only beneficial when those that using the tool understand how to apply the tool to solve a business problem, and the steps to achieve those results. Without it, even the best software in the world has limited value.

Evaluation of Existing ERP Options

The relationship between SMC and LACOE will continue regardless of the decision made about whether to replace SMC's current systems with a fully integrated ERP or enhance the legacy system. Regardless of SMC's preference between the two choices, the preferred approach is to integrate the SMC system and LACOE.

In the following section, two options are presented for retaining the current ERP system that was drafted by SMC resources. They are presented here to provide SMC the opportunity to evaluate those as alternative options.

Continue to Develop and Maintain WebISIS

Pros

- Allows unlimited customization to meet the demands of departments
- Can quickly adapt to changes. Ex. Promise Program and AB 705
- Knowledgeable IT staff with 20+ years of WebISIS experience
- Has functionality specific to SMC that may not be found in commercial ERP solutions. Example: myTime to track student worker and temporary employee hours
- Functional staff has expertise and experience with WebISIS

Cons

- Problem with Student Accounts would not be addressed. Possible compliance issues
- Problem with green bar printing would not be addressed
- Scheduling of processes would not be addressed
- Growing data access needs of Institutional Research would not be addressed
- The need to support disparate Financial Aid and Student systems would continue
- The growing need of APIs for an increasing number of 3rd party integrations would not be addressed
- New reporting solution to replace Oracle Reports (EOF 2018) would need to be found. Approximately 280 reports would need to be converted
- Inherent security issues of maintaining 30-year-old code would not be addressed

- WebISIS client/ server architecture is becoming a legacy and would eventually need to be replaced in the next 5 years. Modern software architecture is cloud-based. Current IT staff would need to be retrained.
- Converting Oracle forms to APEX is a short-term solution to keep WebISIS running
    - A new development framework would need to be adopted to sustain WebISIS long-term
    - This would be a large-scale project and would require retraining MIS staff, half of which are eligible for retirement within the next 5 years
    - It would also require the hiring of MIS staff to replace those that retire
- Lacks functionality of modern ERP solutions. Ex. CRM, Data Analytics, Security, Disaster Recovery, Business Continuity
- Problems with inefficient paper processes would not be addressed
- Steep learning curve (2-3 years) for any new MIS developer to get to know the complex WebISIS data structures and packages
- A majority of SMC's current IT staff are within five years of retirement. Hiring younger staff will be problematic since potential applicants would prefer to work on current technology

Implement a Hybrid of LACOE CGI for Fiscal/ HR Processes with a Modern ERP

Pros

- Provides a long-term sustainable solution to supporting the operations of SMC
- Provides a system of checks and balances
- Provides integration of student, employee and alumni data
- Allows for workflow and efficient processes with the ability for appropriate security access
- Allows for self-service functionality for various constituencies
- Allows for immediate implementation of regulatory changes
- Will dramatically reduce the need for paper processes
- Will permit the college to focus on the optimal student experience and support the initiatives of the Pathways Committee
- Allow for various types of educational and degree plans with the ability to support financial aid disbursements for non-traditional calendars
- Provides data analytics for Institutional Research [and data-driven institutional decision making]
- Addresses the problem of having disparate student and financial aid systems
- Addresses the need of APIs for 3rd party integrations that will provide SMC with a best of breed technology stack
- Addresses the need for security, disaster recovery, and business continuity plans

Cons

- ERP implementations can be costly and taxing on staff
- A complete redesign of SMC processes will be disruptive to current operations until implementation is complete
- Modern ERP systems are not as flexible and customizable as current WebISIS system
- Some functionality of existing WebISIS system will be lost
- Will have to deal with the inefficiency of having two (CGI and New ERP) systems

CampusWorks' Notes Regarding Negatives

CampusWorks does not fully concur with the negative arguments to a vendor ERP selection presented in the preceding section that were provided by SMC staff. Alternative comments are as follows:

- ERP implementations are a significant undertaking. However, the alternative is to continue with systems that will not support SMC's future long-term. By backfilling knowledgeable resources committing time to the project with temporary staff, the impact can be significantly reduced. Additionally, the staff is much more satisfied with tools that enable their jobs versus those that continually require additional manual effort.
- A redesign of SMC's current processes is necessary, and the case has been made throughout the "Our Understanding of the Current Environment" section. There were numerous examples of inefficient and manual processes found during the interviews that should be dramatically improved. Revised processes will be deployed with the new system and will not disrupt current operations until that occurs. Organizational preparation, training, and production support will ease the transition to new systems.
- Modern ERP systems, in past experience, are substantially more flexible than custom systems. They are configurable and extensible through API's and open standards. Vendors provide improved functionality based on client feedback through upgrades and patches that could not be cost justified in a custom system.

  Many custom systems require design and coding changes that can be achieved through user configurations and options in packaged software. Improved business processes minimize the need to customize. Customizing vendor packages is a practice that should be discouraged because it increases IT support costs and impacts the ability to apply patches and upgrades to customized code.
- CampusWorks is dubious of the inefficiency of two systems. SMC does not appear to have an option relative to the implementation of CGI, but there is concern that further investment in aging systems will do little to improve SMC's situation.
  - Replacing end of life Oracle Forms with Apex is a short-term investment that will require another replacement option in a few years.
  - Replacing nearly one-half of the retiring IT development staff in five years or less will further erode SMC's ability to sustain the legacy system.
  - Properly planning and staggering the systems deployments will significantly reduce the impact of two new systems on SMC and put the College on a sustainable path.

CampusWorks Recommended Success Steps

The following "Recommended Success Steps" describes CampusWorks' approach to undertaking the ERP replacement project contemplated at Santa Monica College. There are five phases addressed in this section:

- **Phase 1 - Organizational Preparation** establishes the strategy, vision, and direction to place the project on sound footing. Organizational Preparation also begins the process of addressing cultural and political impediments.
- **Phase 2 - Process Reimagine and Redesign** initiates the redesign of business processes to expose the college to leading process practices and opportunities to improve.
- **Phase 3 - RFP Development** discusses the process of developing realistic business and technology requirements and creating a competitive RFP.
- **Phase 4 - RFP Selection Process** highlights the steps for analyzing vendor RFP responses and selecting software to support the College's vision.
- **Phase 5 - Project Management and ERP Implementation** describes the implementation process and management of a project that touches virtually every aspect of the institution.

Phase 1 - Organizational Preparation

The benefit of implementing a new software system that fundamentally impacts how SMC operates also illuminates an opportunity to take a fresh look at very strategic initiatives of the institution and to validate whether adjustments should be undertaken. For example, CampusWorks strongly supports SMC's focus on the "student experience." Experience shows that oftentimes there is no common "institutional" definition of student experience—rather the definition is often unique and often conflicting depending on which executive or department asked.

The importance of asking strategic questions and addressing cultural behaviors at the genesis of a project such as this is so that the software that is chosen and how it functions is reflective of the core values and strategic direction of the college as envisioned by executive leadership.

Based on CampusWorks' interviews with the SMC faculty, staff, and students, it became apparent that organizational preparation will be critical to the success of an ERP replacement project. Moving an institution from highly custom, homegrown, software that does exactly what you want and how you want it to work to a third-party platform that limits the ability to customize requires transformational behavioral remediation at all levels of the institution. With significant technology replacements such as the one the College is contemplating, the new system impacts people's behaviors, jobs, and potentially their role in the institution. Moving to third-party software from a custom solution requires an institutional shift in culture, behaviors, and mindset.

CampusWorks recommends that no less than three outside resources are engaged for the duration of the project in order to support the College's staff.

- **Project / Program Manager** who will plan and lead the project through all stages. This person should report directly to the executive who will be named the Project Sponsor. A Program Manager who has extensive experience with multiple ERP system implementations in higher education should be selected. This person should, most likely, be either an external hire by SMC or contracted through a professional consulting firm. This person will also serve as the College's advocate when working with the vendor and potential implementation partner that are chosen.

- **Organizational Change Manager**. The OCM will also report to the executive sponsor and will lead activities designed to address organizational change, minimize resistance and cultural resentment. The Organizational Change Manager should also be an experienced Change Management resource. The resource should, also, have completed multiple ERP projects in higher education and would likely be an external hire or contractor staffed through a professional consulting firm. This person will also need to possess a strategic commitment to communication and inclusion of the college community.
- **Technical Project Manager**. The TPM will report to the Program Manager and will have responsibility for managing the technical teams. The TPM must have experienced multiple technical ERP implementations including extensive knowledge of integrations and reports design and development, technical infrastructure, security, networking, and application administration. This role should have not only technical knowledge but also have strategic knowledge of ERP systems architecture. The TPM would likely be staffed as an external hire by SMC or through a professional consulting firm as a contract resource.

The steps in achieving organizational preparation that follow are focused on confirming common institutional strategy and definitions, and ensuring the leadership, faculty, staff, and students are prepared for the change that will inevitably impact everyone.

Phase 1.1 - Institutional Vision for the ERP System

The introduction to this section advocated for a common vision for the project. CampusWorks experience with decades of ERP implementations in successful projects result from vision clarity by the institution's executives. Furthermore, these projects are most successful when the vision is clearly defined, and executives are in alignment about the vision both publicly and privately. When senior leadership is tacitly supportive of the vision, the risk to the project increases significantly.

Transformative projects are difficult because at critical points the amount of change asked of the institution's people reaches a critical point. A common core purpose along with a shared vision and values become the glue that carries each individual through the challenges they face. When individuals feel empowered by the vision, purpose, and values to test new ways of performing processes without fear of ridicule by their supervisors, they are less likely to succumb to old behaviors, beliefs, and solutions. This empowerment leads to an evaluation of different ways of working and relating to meet the future direction of the institution.

CampusWorks strongly recommends Santa Monica College undertake an executive level vision definition exercise to ensure senior leadership delivers to the college its vision for the future of the institution. It should not only clearly outline the leadership view of the "student experience" in all the critical areas of the college (admissions, advising, registration, etc.). It should, also, provide guidance about how the people, processes, and technology should be aligned to support the vision.

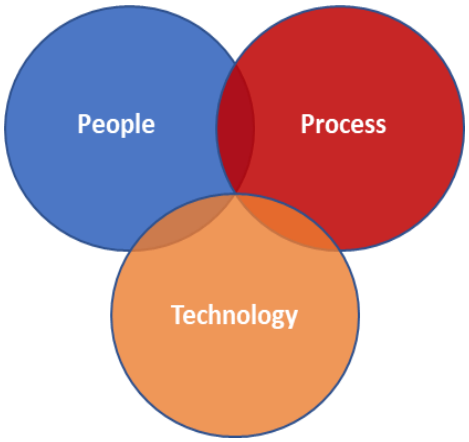
Additionally, executive and senior leadership must both publicly and privately adhere to the vision throughout the project. When leadership deviates from their support of the vision, the project and stakeholders view it as an opportunity to return to comfortable practices and processes. In doing so, leadership unwittingly opens the door to chipping away at the key reasons the project was undertaken. It demonstrates that leadership is asking the workforce to undertake a significant change, but are unwilling to personally change.

Phase 1.2 - Institutional Needs and Readiness Assessment

The purpose of a Needs Assessment is to identify where Santa Monica College is organizationally prepared relative to the vision outlined in Phase 1.1. It determines what gaps must be filled to move

the college to where you want to be (the vision) at the conclusion of the project. The analysis evaluates resources, technology, skills, and related areas to prioritize what must be improved in the organization to successfully accomplish the institutional vision.

Our experience has repeatedly confirmed that projects, such as SMC is contemplating, are successful if there is a balanced focus on the three pillars of People, Process, and Technology. The reason this model is predominant is it recognizes that transformational projects are multi-dimensional. If you view the project simply as a technology project, it will likely result in high-quality technology, but the users will not be able to utilize it and the business processes will suffer.



At the Organizational Preparation stage, it is critical to focus on the people who will be directly or indirectly involved with the project. Ensuring they are properly prepared with skills, training, and attitude is imperative to the readiness process.

CampusWorks heard during the assessment onsite that staff already have "full plates" and that adding more to their workload will create morale issues. This perspective is understood. However, employees are very savvy about evaluating the success likelihood of new initiatives. When they see their leaders toss uncoordinated and non-integrated projects, with no context or rationale about why it is needed, individuals quickly recognize they can stall or "slow walk" the project until it fails. The Needs Assessment is designed to ensure there is comprehension of the vision and focus on the leadership's commitment to realizing that vision.

Institutions that transition from custom legacy systems to mainstream third-party software often find their organizational structure and responsibilities within the structure will be impacted by the project. Software systems are built using organizational models that are designed to support separation of duties, and federal and state legislative requirements. CampusWorks finds that institutions coming from custom legacy systems have not adapted their organizational structures and responsibilities to be consistent with legal requirements. The Needs Assessment will provide an early look at whether there may be a need to shift responsibilities from department to department.

CampusWorks recommends Santa Monica College undertake an organizational needs assessment to help evaluate the organization and its resources to determine steps for improving the project's success. This often results in priorities highlighting training and organizational change management efforts to reduce resistance to change. The analysis should also evaluate how the institution traditionally communicates as a predecessor for the development of a communication plan.

The Needs Assessment and Readiness Plan will reduce the risk of the project failing due to cultural, organizational, and human capital deficiencies.

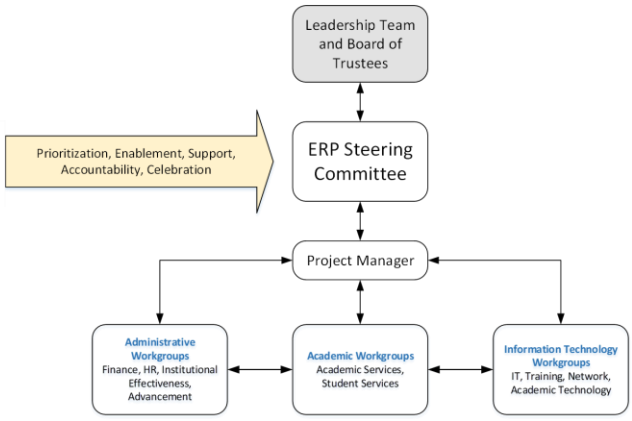
Phase 1.3 - Establish the Governance Structure

Before the discussion on the importance of Governance to an ERP project, two terms that are critical to this discussion must be defined.

A **Program** is a major business initiative of the institution that encompasses multiple elements of a business strategy. The importance of the vision is discussed in Phase 1.1 which outlines the business strategy and expected results. Program Management represents the management of strategy and vision and shepherds multiple projects necessary to achieve the common goals of the strategy.

Governance represents program oversight to ensure the program maintains alignment to the strategy so that the decisions and direction the program undertakes achieve the envisioned outcomes. Governance helps managers to assess the program's progress and exerts control to keep the projects that support the program's initiatives on a path to achieve the desired business value. It must also define success criteria as deeper knowledge of the technology and processes are understood to maintain alignment to the desired business objectives.

This is a critical function of the executive of the institution and senior leadership of the program. Without proper oversight and path adjustments, individuals will be left to interpret the appropriate direction and will stray from the intended purpose—often significantly. The governance model is designed to shield the program from organizational political pressures to incorporate ill-conceived technology or processes into the program's deliverables. It also means the architected solution is flexible enough to avoid contributing to the creation of new shadow systems and silos.



Readily available software that represents itself as "quick and easy" solutions that can be "quickly deployed" must be managed carefully through the life of the program so as not to further complicate the ERP project. This has been clearly identified as a symptom at SMC where departments are purchasing software to address emerging business requirements without coordination with IT or other departments who may have similar business needs. The goal of the program must focus on fewer business systems with compatible technologies that result in improved systems integration, process standardization, safeguard data security, and lower overall IT costs. Clear guidance by Program Governance that adheres to a system of record standards is critical. The Governance structure must evaluate all software procurements in terms of how it fits with the vision and direction of the institution.

Modern ERP systems are not designed to meet the requirements and needs of every constituency in the institution. They are designed to focus on the core processing requirements and typically defer to point solutions for business requirements outside the core. CampusWorks strongly recommends to all clients to not modify the core ERP processes. Instead, the recommendation is to limit point solution acquisitions to address opportunities that differentiate or innovate the SMC brand. Prior to acquiring these point solutions that claim quick implementation and return on investment, a clear analysis should be performed that answers these and other questions:

- What is the business problem or deficiencies with the ERP that we are trying to solve by acquiring a point solution?
- Which SMC and non-SMC resources will be required to implement and support the software short- and long-term?
- Is this a priority for SMC to invest relative to all other opportunities for investment?
- How does the point solution differentiate SMC from our peers and how does the differentiation contribute to the institution's core vision and strategy?
- Is the technology compatible with our ERP architecture and what is the Total Cost of Ownership (TCO) for the life of the software including training, systems integration, IT support, licensing, and maintenance?

- Who are the interdepartmental stakeholders impacted by a software change? What are the long-term cost and resource implications?
- How will the point solution impact SMC's standard business processes?
- What is the timeline SMC anticipates for achieving the benefits from the point solution? Are they realistic?
- Will the benefits be achieved on a timeline that will produce value and a competitive benefit?

The role of governance is not to prevent SMC from undertaking opportunities for it to improve or enhance the brand or take advantage of emerging prospects arising from fluid conditions. Rather, it is designed to improve the chances of successfully responding to the conditions while thoughtfully evaluating how it fits within the vision and direction of the college.

CampusWorks very strongly recommends SMC establish a long-term governance model. The short-term governance should focus on oversight and management of the ERP implementation to ensure its success. Long-term governance should be focused on adherence to the vision and strategy of Santa Monica College. Ensuring investment in technology is supportive of the institution's direction and compatible with its technical architecture is an ongoing responsibility that should not be left to managers who are not invested in the college's larger goals.

Phase 1.4 - Establish Institutional Data Standards

During the onsite analysis, issues related to redundant duplicate and inconsistent data were discussed that complicated SMC's ability to deliver consistent and timely reports. Extensive use of spreadsheets and non-integrated systems with duplicate incompatible data exacerbate SMC's inability to use analytics and data-informed decisions to guide the college.

The pace of change in higher education is increasingly forcing colleges, such as SMC, to evaluate and implement technologies that deliver analytics to improve decision-making. As discussed in Phase 1.4, opportunities often emerge that must be evaluated quickly to determine whether SMC should invest to take advantage of it. Having the ability to rapidly develop an analysis of internal and external costs, resources, and infrastructure is becoming a critical necessity for executive leadership to evaluate business initiatives to benefit the long-term health of SMC. Common data standards and data definitions is a critical step towards achieving the ability to using analytics to deliver a data-informed culture and decisions at SMC.

Common data standards address format and consistency of the data captured by SMC's core business systems. Standards define the valid values, format, and structure for data. A "system of record" should be identified as the source repository for critical institutional data. All data maintained in the system of record must follow the standard. This step should be initiated to prior to the selection and initiation of the ERP to allow time to define SMC's standards and perform data cleansing in the legacy systems. This preparation step will facilitate improved quality of data migrated into the new ERP.

CampusWorks supports the identification of "data stewards" who are responsible for ensuring data is collected according to institutional standards. Data stewards are not the "owners" of the data. Instead, data stewards recognize it is an institutional asset that is to be used by approved cohorts for the benefit of the college in a readily available and consistent manner. As the definition of data standards progresses, data stewards should be identified to provide oversight—not control—over the assets.

Common data definitions address the meaning and purpose of the data—this is traditionally called metadata. In many institutions, data is collected and maintained by the departments with a minimum of consideration for the value and purpose. CampusWorks regularly find clients who view

data as "owned" by the department with a minimum of expectation for sharing the data with other departments. This view leads to silos and inconsistent data duplication that results in no single source of the truth. When data is maintained in silos, all answers to questions are dependent upon "who you ask."

Common data definitions should also be a pre-selection initiative so that the ERP evaluation includes support for SMC's data requirements. Modern ERP systems include or will license products that provide seeded definitions for their systems. Careful evaluation of available standard definitions should be included when considering all systems to be incorporated into SMC's portfolio of software supporting business operations.

CampusWorks strongly recommends

1. SMC pursue the creation of a Data Standards committee for the college chartered to identify and define institutional assets prior to ERP selection. The Data Standards Committee should exist beyond the ERP implementation to maintain and extend standards as new and different data is collected in support of the SMC vision and direction.
2. Data Stewards be clearly determined who are responsible for collecting and maintaining the data in their area of responsibility according to the institutional standards outlined by the Data Standards committee. Data Stewardship is a role that should continue beyond the conclusion of the ERP implementation.
3. Data Definitions, or metadata, be developed by the Data Standards Committee to provide clarity about the meaning of the data to SMC. This initiative will provide meaningful, long-term support to data-based decision-making and analytics that would be difficult under the existing custom ERP.

PHASE 2 - RFP DEVELOPMENT

There are numerous challenges when higher education institutions determine the need to issue an RFP for mission-critical systems replacement. CampusWorks' objective is to assist SMC with focusing the RFP and vendor responses on the vision and direction of the institution to help establish the foundation for how the college will solve your current challenges with the "student and employee experiences."

At the core, we find RFP development for critical systems is often challenged by conflicting criteria by departments who view their mission differently than their peer departments. This can lead to focusing on very specific requirements for "how" systems accomplish a business process rather than "how efficiently."

Political agendas are also a significant factor during RFP development. As departments and departmental leaders recognize there may be a significant change required of them to facilitate a new system's implementation, they tend to drive the RFP process towards either unattainable solutions or existing procedures to preserve their political capital.

When either of these situations is permitted to flourish a failed or poorly conceived vendor selection is often the result. CampusWorks' focus on the definition of strategic requirements and business scenarios is designed to mitigate infiltration of "how we do it" and political agendas into the RFP development process.

Armed with the newly redesigned processes from the Process Reimaging and Redesign phase, CampusWorks will draft business scenarios for each of the functional areas in the Institution. The process maps provide a framework for creating these scenarios. The RFP becomes more than a list of

functional questions where a vendor answers yes/no, but instead is a set of real-life business processes and scenarios where they must show how their solution accomplishes the requirements of those processes. In using the newly designed process in the scenarios we ensure that the vendor will be able to meet the current and future needs of the institution and it provides the staff to see what their future lives will look like.

CampusWorks recommends that SMC use the scenario model in the development of the RFP.

PHASE 3 - RFP SELECTION PROCESS

The RFP selection process is a multi-step process designed to produce the most relevant outline of SMC's functional needs, desires, and hopes for the student and employee experiences. Through this process, CampusWorks employs a scenario-based methodology to get vendors to respond in a thoughtful way that will assist the College in making the best decision possible based on the needs gathered in the assessment and needs gathering phase. The scenario-based methodology is designed to require vendors to walk users through the processes and workflows available in their respective systems in order to demonstrate for users what real life in their system will look and feel like.

CampusWorks will produce a comprehensive RFP that includes cross-functional scenario questions that can be issued. CampusWorks can serve as the recipient and initial clearinghouse for the responses if SMC so chooses. As part of this process, CampusWorks will:

- Support bidder conferences and conduct appropriate pre-bid meetings and will assist SMC's procurement office in responding to vendor questions during the question and answer period.
- After the pre-bid and question and answer periods are over, CampusWorks will meet with the SMC team to facilitate an RFP selection process kickoff meeting that will organize the team.
- Define teams, sub teams, roles and responsibilities
- Develop the timeline and activity schedule for the selection process
- Conduct an ERP selection committee orientation to review committee responsibilities, provide an overview of the ERP landscape and address general questions from the team about ERP solutions and the selection process.
- Develop the evaluation tools including surveys, pricing worksheets, demo scripts and reference scripts.
- Develop the timeline and activity schedule for the selection process.
- Develop the scoring criteria for the RFP's and work with the SMC ERP selection committee to develop the selection criteria for semifinalists and finalists.
- Assist SMC in comparing and analyzing the submitted proposals.
- Prepare the overview and score the ERP proposals.
- Develop the agenda and facilitate the discussion with the SMC ERP selection committee to identify semifinalist who will conduct the onsite demonstrations.
- We would then take the steering committee through an initial scoring exercise to down select which vendors should be invited to demonstrate their systems on campus – typically for 2-3 days.
- Following the selection of the semifinalists, CampusWorks will coordinate and attend the onsite demonstrations of the vendors' products and serve as a resource to SMC throughout

the selection process and, during the onsite meetings. These demos are typically 2-3 days each.

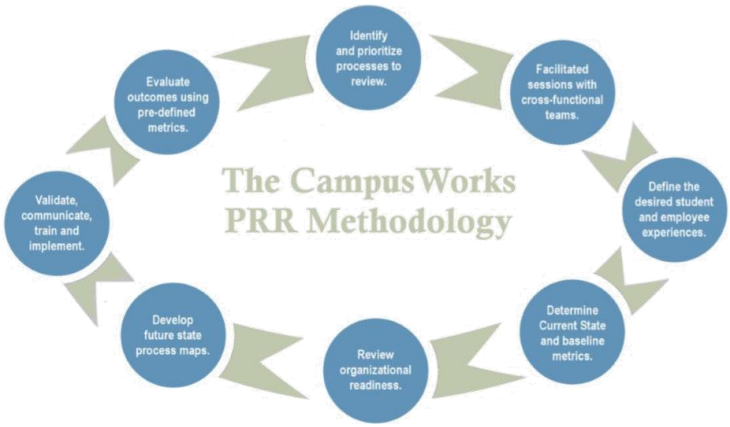
- CampusWorks will create the demonstration agenda for the vendors and request that it be approved by the selection committee.
- CampusWorks will then develop an evaluation tool and feedback method for all participants in the onsite demonstrations.
- Following the vendor demonstrations, CampusWorks can provide a survey or facilitate in-person meetings to determine whether additional questions exist for the vendor(s) or if the College is ready to enter into a selection decision.
- We will then develop a script for reference interviews and select institutional reference sites to be interviewed. CampusWorks will also participate in these reference interviews.
- CampusWorks will review pricing with vendors and request improved offerings based on targeted needs resulting from the demonstrations.
- CampusWorks will document vendor to vendor comparisons as well as round to round comparisons.
- We will then consolidate and summarize the evaluation data, reference information and pricing to prepare an "apple to apples" comparison of the solutions and investments.
- We will also develop a 5-year total cost of ownership projection for the finalist vendors.
- We are also able to assist with the reviewing of contracts, vendor negotiations and "best and final" pricing including defining integration costs, training costs, data conversion costs as well as warranty and ongoing maintenance. Typically, CampusWorks engagement in the contract review and negotiation process results in hundreds of thousands of dollars in savings for the institution.

The entire RFP process can typically take anywhere from 6-12 months depending on various factors but CampusWorks is confident that we could produce a comprehensive RFP document that SMC can issue within the next 90 days.

CampusWorks strongly recommends that Santa Monica College contract with CampusWorks to undergo the RFP selection process.

PHASE 4 - PROCESS REIMAGINE AND REDESIGN

In Phase 1.2, we introduced the concept of a balanced focus on People, Process, and Technology as the foundation for all successful projects. The Process Reimagine and Redesign phase brings into focus the importance of standardized business processes as a tool to ensure efficiency and effectiveness in processing.



Institutions that have existed on the same ERP for an extended period tend to lose focus on the importance of standard processes. The institutional knowledge about the steps to complete a business process are lost or are passed to new staff through informal training. This leads to the fracturing of the process due

to incomplete knowledge transfer. It further leads to the concept of "this is how we've always done it" approach to processing.

Special situations never anticipated in the business process design also impact processing. When a special situation occurs, human nature demands that special procedures be added to the process to prevent recurrence of the event, often without regard to the upstream or downstream impacts of the change. This leads to further business process fractures because the end-to-end business process impacts are usually not evaluated.

Finally, deployment of supporting software systems is another source for business process fracturing. Departments tend to procure software assuming it has little to no impact on processing in sister departments. The systems are deployed parochially with a minimum of evaluation of upstream or downstream impacts. Implementing software systems in this way may improve Department A's processing, it often leads to a new series of manual interventions in Department B's processes that negatively impact the efficiency of the intended result.

The Process Reimagine and Redesign phase provides an opportunity to review your processes across the institution and challenges the teams to focus on new and improved ways to accomplish a business process. It uses a combination of leading practices and processes architected into the predominant ERP systems to focus business teams towards new ways to accomplish a process using technology tools that result in fewer exceptions. Fewer exceptions result in more efficient processing while minimizing manual interventions, shadow systems, and improved accuracy. These processes are documented through process maps and process narratives.

CampusWorks strongly recommends SMC undertake the Process Reimagine and Redesign steps to review your current business processes and reimagine improved methods and tools to achieve them. By expanding the vision of what is possible with current technology, SMC's departmental users will enter the ERP Implementation phase with an enhanced vision of "what is possible" as opposed to implementing software tools using the lens of "does the software process similar to how we've always done it."

CampusWorks recommends that Santa Monica College strongly consider undergoing the Process Reimagine and Redesign work for all administrative areas.

PHASE 5 - PROJECT MANAGEMENT AND ERP IMPLEMENTATION

Once the vendor is selected and a contract is executed the vendor will develop an implementation schedule. It can take anywhere from 30-90 days after signing the contract before implementation begins. It can be a challenge to manage the project with internal staff who have responsibilities to continue to support the current environment. It is also important to have someone who has experience with implementations and managing relationships with an ERP vendor.

CampusWorks' philosophy is to build strong professional and personal partnerships with the internal service departments at our client sites. We inculcate a sense of professional pride and accountability in the work effort on the part of all members. Our goal is for staff and consultants alike to realize a sense of ownership for delivering results as an interdependent, highly functioning team: each member of the team recognized as an indispensable, valued, and trusted resource.

To accomplish this philosophy, CampusWorks provides proven leaders with decades of experience in managing large and complex assignments. CampusWorks project managers have the experience to coach, motivate and empower staff, while showing extremely high levels of empathy. CampusWorks understands the amount of work required during ERP implementations and stresses the importance of work/life balance.

We do not believe in the individual hero sacrificing their quality of life to get the job done. Instead, CampusWorks focuses on building trust among team members, sharing knowledge, providing support and doing everything possible to make the home team capable of standing alone when a project is completed. The process of completing the project will provide the opportunity for professional growth and, typically, new leadership emerges from the ranks.

The keys to successful implementation are a partnership, proven leadership, trust, professional project management and the efficient allocation of resources. We will guide the District to bring together the right people, at the right time, and facilitate discussions and decision making so critical to institutional post-implementation projects.

Our project managers will deliver a successful outcome by –

- Leading the day-to-day management, planning, and tracking of all phases of design, implementation, and planning for this project through the execution and delivery of the ERP system for Santa Monica College, concluding with project transition of end-user, technical support resources, and project close
- Communicating the plan, roles, constraints, milestones, and critical path to all team members and project stakeholders
- Applying standard project management and delivery methodology and project tracking standards to build effective plans and deliver quality solutions
- Leading project team status meetings to ensure that project milestones are met, dependencies are tracked, and issues and next steps are proactively identified
- Providing management and Santa Monica College leadership with a regular summary of the project and outstanding deliverables statuses, especially with regards to issues affecting the timeline
- Prioritizing work for the project team and effectively triaging project team responses when capacity is a challenge
- Facilitating discussions with appropriate leadership and stakeholders to negotiate key decisions related to the project constraints (time, cost, scope) while maintaining the overall delivery timeline
- Ensuring that the project is fully documented (e.g., Standard Operating Procedures, business rules and definitions, and so on)
- Managing all project cross-functional resources, including the vendor team, and ensuring proper knowledge transfer
- Driving the project and implementing the specific Santa Monica College system that supports appropriate applications for the development, administration, documentation, tracking, reporting, and delivery of educational technology courses or training programs
- Working with internal stakeholders and other vendors/consultants to help establish a project plan for a successful implementation
- Being responsible and accountable for all aspects of the delivery of the new ERP solution
- Keeping track of all project tasks, subtasks, resource assignments, dependencies, and due dates
- Ensuring that the Project Team completes the project

- Developing the project plan with the team
- Managing the team's performance of project tasks
- Securing acceptance and approval of deliverables from the Project Sponsor and Stakeholders
- Providing communication, including status reporting, risk management, and escalation of issues that cannot be resolved by the team
- Ensuring the project is delivered within budget, on schedule, and within scope
- Creating the detailed work plan which identifies and sequences the activities needed to complete the project
- CampusWorks' Project Management services have been designed to offer a breadth of program advisory services to give confidence to clients that the vision, strategy, and tactical elements of such a significant initiative are being addressed and monitored.

Following is a summary of the critical components that would be part of our project leadership for Santa Monica College.

Complete Readiness Tasks to Implement the New Administrative System

The District's IT and administrative staff will need to achieve readiness to move forward with the new administrative system implementation project. CampusWorks anticipates leading the implementation effort for the District through the CampusWorks project manager. The successful project would include participation by the IT and functional staff in the implementation project activities, including constructing a reporting inventory, performing legacy system data conversion mapping, participating in web development, and strengthening information security through identity management.

Develop and Manage a Comprehensive Project Plan

CampusWorks has vast experience in developing and managing a plan for deploying administrative systems on time and within the predetermined scope and budget levels. Development of a comprehensive project plan is essential to the successful implementation of the new administrative system. This plan would contain the District's vision for a new integrated ERP system. The plan will describe the leadership of the implementation project, the project steering committee structure, duties, and responsibilities for decision-making, as well as its constituent membership. In successful implementations, it is the project steering committee that drives the project forward. The plan will describe the District stakeholders and their respective responsibilities for the project's successful outcome, various project sponsors and champions across the District, and the duties and responsibilities of each.

The project plan would include additional detail for each business area, including:

- Finance
- Human Capital and Payroll
- Financial Aid
- Student system including Recruitment, Admissions, Registration, Student Accounts, and online services
- Customer Resource Management
- Auxiliary software systems identified by the project team

- Data warehouse and institutional reporting
- Information security with identity management

The project plan will provide a go-live schedule with a rolling timeline of go-live cutover dates that are synchronized to the District's master schedule for classes and other events in the academic and administrative calendar that pertain to making operational the various specific functional capabilities of the new administrative system.

Establish Project Teams

CampusWorks' strategy is to establish implementation project teams for each of the functional service areas listed above. These teams will include stakeholders in each functional service area and will be staffed with appropriate subject area experts from the project implementation team and District staff. The members of the project implementation team would provide the necessary technical support to each functional team and coordinate their efforts both within the scope of each team effort and across the whole set of teams.

Test and Validate Business Processes

CampusWorks' project manager will coordinate in collaboration with IT and the functional teams, the efforts to test and validate the critical processes throughout the District such as supporting student billing, the award of financial aid, and the refunding and disbursement of funds to students. Testing of the many combinations of cases needs to be complete and exhaustive, ensuring that appropriate scenarios are correctly processed. Usability testing with focus groups of users (especially students) reduces institutional risk and is a CampusWorks best practice.

Develop and Validate the Administrative System Environment

CampusWorks will coordinate the development and validation of the new administrative system environment collaboratively with the District and ERP vendors involved. Testing includes adequate capacity, performance, security, business continuity, and management policies and procedures. Processing validation is essential in assuring users and the District staff that the new administrative system is processing data as expected by the District.

Develop a Governance Model

CampusWorks will develop a recommended governance structure that will guide the centralized decision making for the project, guide the project and resource prioritization, facilitate shared data standards and ensure that all management members are engaged in the process. This structure will leverage current District governance structures, as appropriate, and will include the creation of appropriate management -wide committees and teams.

Develop Change Management Strategies

CampusWorks will assist the District with the development of administrative system tests, development/production environments, and effective change management procedures. The change management methodology will ensure orderly and documented business processes for changes to the District production systems.

Data Conversion

CampusWorks' specialists will assist with the strategy, planning, timing, and level of historical information moved for the data converted from legacy systems to the new administrative system. CampusWorks PM will coordinate with IT and the Functional teams the data conversion efforts, including timing the various data extracts and integrations throughout the project efforts.

Develop an Institutional Reporting Strategy

Data reporting is an essential information technology service, and it will be one of the major indicators of the success of the administrative system implementation project. CampusWorks will assist and support the development of an effective report inventory to ensure ongoing continuity of services during the new administrative system implementation. CampusWorks will assist the District in planning for the development of an institutional data warehouse.

These efforts will dovetail with work toward a cross-functional data stewardship committee who can help with both data element definitions and management, which will all lead to consistency across all the functions.

Training and Knowledge Transfer

The ERP vendor(s) selected, or their partners will offer training on the new administrative system for all levels of institutional staff. CampusWorks will provide a well-defined structure/approach for training the District's staff using its proven and effective knowledge transfer methodology. CampusWorks' functional experts bridge the gap between how the products work and how to effectively implement the products for a particular institution. CampusWorks will also provide the District with the structure and methodologies necessary for training functional users.

Develop a Support Model

CampusWorks can assist the District in the development of a best practices technology support model for the new administrative system. The support model will provide functional services units with assistance and support as problems develop. The support model also provides a systematic method for resolving problems together with a problem tracking system and a knowledge base of previously established solutions.

Information Security

CampusWorks can assist the District with a comprehensive information security assessment. Remediation requirements will be included as tasks in the tactical implementation plan. Information security will be included in the new administrative system implementation where the focus will be on the best practices of identity management.

Interface with Third-Party Products

The new administrative system will consist of a wide range of functionality, but the complexity of operating a higher education institution requires even more capabilities. Most institutions augment administrative systems with a series of third-party software products (e.g., imaging, scheduling, and credit card payment). CampusWorks has developed efficient and effective best practices for managing the integration of third-party software to administrative systems and the PM for this effort will guide the District on the recommended best approach to the fullest integration of the ERP environment

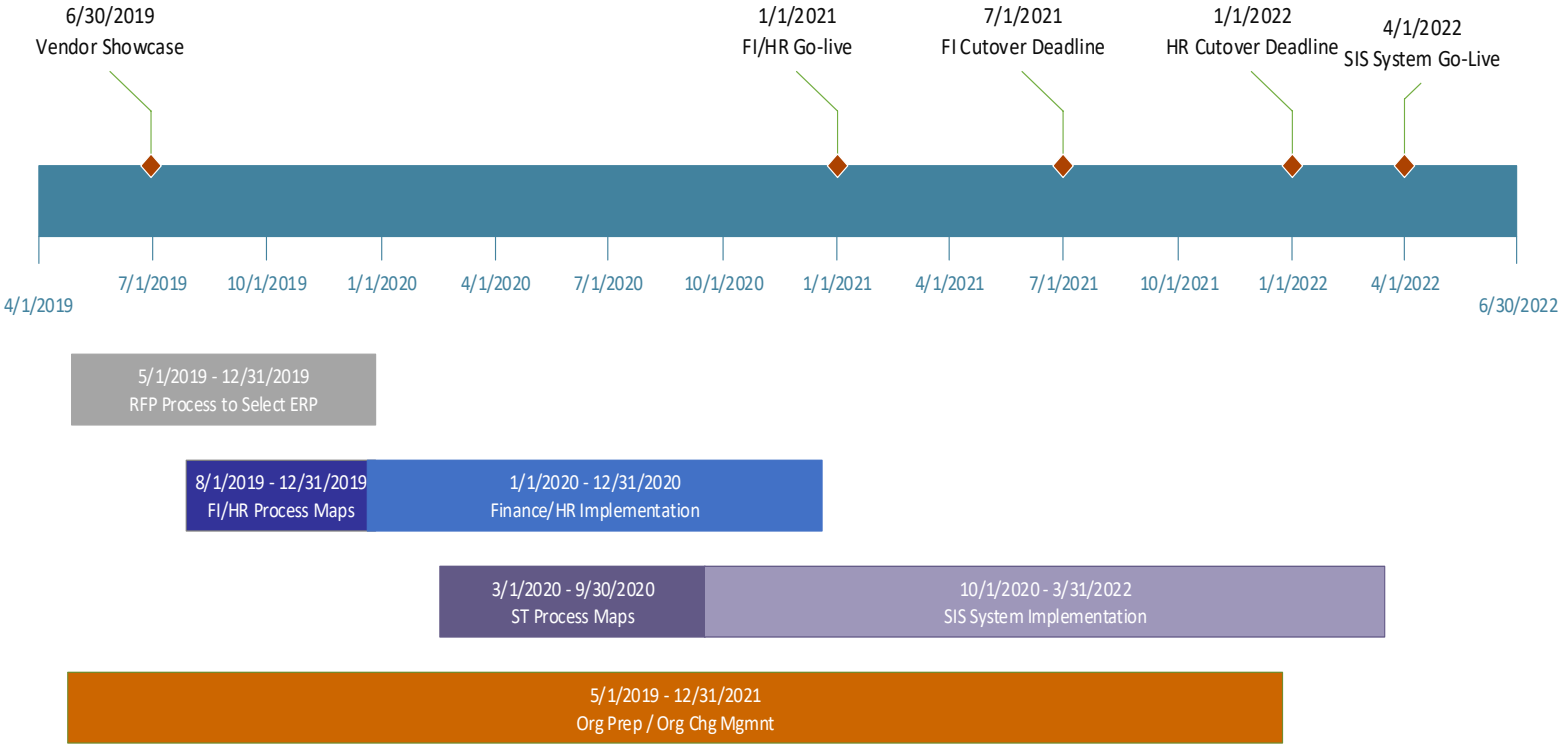
Develop Life Cycle Support for the New Administrative System

Success with administrative systems means that the system must be maintained throughout its many years of future service to the District. CampusWorks has developed best practices for life-cycle support of the many solution components in today's modern administrative systems.

A primary goal of CampusWorks, if selected as a partner, is to address issues, challenges, and trends that will affect the District. By providing management of the whole ERP selection, acquisition, and implementation processes, ultimately the District will have technology solutions that will enable information to be available when and where it is needed, on a cost-effective basis.

Potential Timeline

The timeline presented below represents a high-level view of the SMC project that must be validated through detailed project planning. It assumes commitments of SMC resources that may or may not be realistic. CampusWorks will work with SMC leadership to draft a "top-down" and "bottoms up" plan and timeline during the Project Initiation stage of the implementation project. The timeline is provided as a representative example of what could realistically be achieved with an appropriate commitment by SMC.



Note that the process above differs from the "recommended" success steps due to the time-sensitive need required for an HR/Finance implementation.

Cost/Benefit and Budget Recommendations

ESTIMATED COSTS FOR ERP SOLUTION

	Campus Management	Ellucian	Jenzabar	Oracle	Unit4	Workday	Average Cost (plus 5%)
5-year Subscription	18,866,863.69	17,741,965.76	17,071,860.21	21,606,242.78	14,289,455.39	22,414,831.98	19,598,463.47
Average per year	$3,773,372.74	$3,548,393.15	$3,414,372.04	$4,321,248.56	$2,857,891.08	$4,482,966.40	$3,919,692.69
Implementation Cost	3,171,253.65	2,337,555.39	2,560,779.03	9,560,045.92	2,239,051.78	9,357,512.95	5,358,136.43
Implementation period (months)							30
Implementation cost per period							$178,604.55
Total 5-year cost	**$22,038,117.35**	**$20,079,521.16**	**$19,632,639.24**	**$31,166,288.70**	**$16,528,507.16**	**$31,772,344.93**	**$24,956,599.90**

Note - Costs are estimates only and could vary 10-20% based on final solution and options selected.

TOTAL COST OF OWNERSHIP

NEW ERP/IMPLEMENTATION	Year 1	Year 2	Year 3	Year 4	Year 5	5-Year Total
Program Management Services	$366,080.00	$366,080.00	$183,040.00			$915,200.00
Project Management Services	$366,080.00	$366,080.00	$183,040.00			$915,200.00
Change Management Services	$208,000.00	$104,000.00	$52,000.00			$364,000.00
Software Costs	$3,919,692.69	$3,919,692.69	$3,919,692.69	$3,919,692.69	$3,919,692.69	$19,598,463.47
Process Maps						
HR/Finance	$111,333.00					$111,333.00
Student	$91,686.00	$91,686.00				$183,372.00
Implementation Costs						
HR/Finance	$1,071,627.29	$1,071,627.29				$2,143,254.57
Student		$1,607,440.93	$1,607,440.93			$3,214,881.86
CGI Yearly Costs	$500,000.00	$500,000.00	$500,000.00	$500,000.00	$500,000.00	$2,500,000.00
IT Annual Software/Hardware Support	$464,729.41	$389,142.78	$281,068.12	$153,779.88	$10,000.00	$1,298,720.20
Support Staff (half of IT retiring)	$1,020,600.50	$1,051,218.52	$1,082,755.07	$1,115,237.72	$1,148,694.85	$5,418,506.66
Paper Saving (no green bar)	($195,000.00)	($390,000.00)	($585,000.00)	($780,000.00)	($780,000.00)	($2,730,000.00)
Total Future Expenditures	**$7,179,668.89**	**$8,630,808.21**	**$7,390,956.82**	**$5,688,710.29**	**$5,578,387.55**	**$34,468,531.76**

CURRENT EXPENDITURES	Year 1	Year 2	Year 3	Year 4	Year 5	5-Year Total
WebISIS						
Server Hardware	$15,000.00	$15,000.00	$15,000.00	$15,000.00	$228,600.00	$288,600.00
Storage Equipment	$15,748.00	$15,748.00	$15,748.00	$15,748.00	$240,000.00	$302,992.00
Annual Hardware/Support						
Oracle License	$190,812.00	$200,352.60	$200,352.60	$200,352.60	$200,352.60	$992,222.40
Redhat Linux	$8,886.00	$9,330.30	$9,796.82	$10,286.66	$10,800.99	$49,100.76
Viatron Systems	$11,115.00	$11,670.75	$12,254.29	$12,867.00	$13,510.35	$61,417.39
Odyssey Power	$5,639.00	$5,920.95	$6,217.00	$6,527.85	$6,854.24	$31,159.03
Veeam	$7,110.00	$7,465.50	$7,838.78	$8,230.71	$8,642.25	$39,287.24
HP Enterprise	$119,628.00	$125,609.40	$131,889.87	$138,484.36	$145,408.58	$661,020.22
Banner	$72,591.41	$76,220.98	$80,032.03	$84,033.63	$88,235.31	$401,113.36
Clean Address Enterprise Suite	$5,000.00	$5,250.00	$5,512.50	$5,788.13	$6,077.53	$27,628.16
Net Cobol for Linux	$1,500.00	$1,575.00	$1,653.75	$1,736.44	$1,823.26	$8,288.45
Iron Mountain Tape Data Storage	$7,000.00	$7,350.00	$7,717.50	$8,103.38	$8,508.54	$38,679.42
Harland - Scantron Maintenance	$4,700.00	$4,935.00	$5,181.75	$5,440.84	$5,712.88	$25,970.47
Support Staff						
IT Salary and Benefits	$2,041,201.00	$2,102,437.03	$2,165,510.14	$2,230,475.45	$2,297,389.71	$10,837,013.32
Other Staff						$0.00
CGI Yearly Costs	$500,000.00	$500,000.00	$500,000.00	$500,000.00	$500,000.00	$2,500,000.00
Total Current Expenditure	**$3,005,930.41**	**$3,088,865.51**	**$3,164,705.02**	**$3,243,075.03**	**$3,761,916.25**	**$16,264,492.22**

Return on Investment	($4,173,738.48)	($5,541,942.70)	($4,226,251.80)	($2,445,635.26)	($1,816,471.30)	($18,204,039.54)
Efficiencies Gained	Potential for growth of new students, or reduction in staffing (from attrition) due to efficiencies					
Risks Mitigated	Cost of a Data Breach - 500,000 records at an average cost of $233/person record - $116,500,000					
	Institutional talent and knowledge does not walk out the door with retirements					

Notes:

All cost start on July 1 for fiscal year purposes
IT maintenance based on 5% annual increases (except Oracle)
Oracle maintenance based on a 5% contract increase
Salaries include an annual increase of 3%
Future state personnel cost assume that 50% of staff positions will not be rehired
Green bar paper savings based on a load of 1,000 used per month (average) at a cost of $65/case

Although the costs of a new ERP are going to be significantly higher than the current system, much of the Return on Investment is intangible. It is very difficult to quantify risk mitigation, efficiencies, and user satisfaction.

Fit / Gap of Potential SIS Vendors

The information provided is from information gathered through evaluations with other clients, and additional research to support this. The report analyzes the six major vendors in the Higher Education ERP market today.

The chart below presents a segment of the desired core requirements for each functional area. Results are based on publicly available information, and may not meet the exact needs for the requirement. Blank areas indicate a feature may not be available to meet the needs of Santa Monica College, black check marks indicate a feature included on the vendor roadmap for the future, orange balls indicate caution and should be investigated further, and blue balls are features where no information is available to make a judgement about the requirement.

BLANK –N/A ✓ Feature Available ✓ On Vendor Roadmap ✓ Third Party ! May not meet needs ? Unknown

Requirement	Campus Management	Ellucian Banner	Ellucian Colleague	Jenzabar	Oracle Cloud	Unit 4	Workday
TECHNOLOGY COMPONENTS							
Cloud based technology							
SaaS	✓				✓	✓	✓
Hosting		✓	✓	✓	✓		
Student/Finance/HR Integrated Solutions							
Single ERP from same vendor		✓	✓		✓		✓
Separate functional system	✓			✓		✓	
Systems require integration	✓	✓	✓	✓		✓	✓
API or integration abilities for third-party systems	!	✓	✓	!	✓	!	✓
Portal/Self-Service functionality	✓	✓	✓	✓	✓	✓	✓
Document management/upload capability	✓	✓ ✓	✓ ✓	✓	✓	✓	✓
Export data into spreadsheets and other formats	✓	✓	✓	✓	✓	✓	✓
Mobile-compatible	✓	✓	✓	✓	✓	✓	✓

BLANK –N/A ✓ Feature Available ✓ On Vendor Roadmap ✓ Third Party ! May not meet needs ? Unknown

Requirement	Campus Management	Ellucian Banner	Ellucian Colleague	Jenzabar	Oracle Cloud	Unit 4	Workday
Role based security	✓	✓	✓	✓			✓
Functionality to test production system for new releases		✓		✓			
Support for messaging among users							
Built for mobile from ground up				✓ Jenzabar One	✓	✓	✓
Communication Management	✓	✓	✓	!	✓	✓	✓
STUDENT INFORMATION SYSTEM							
Student demographic information	✓	✓	✓	✓	✓	✓	✓
Curriculum and program management							
Course scheduling		✓	✓	✓			
Course catalog management	✓	✓	✓				
Admissions and recruitment functionality	✓	✓	✓	✓	✓	✓	✓
Registration	✓	✓	✓	✓	✓	✓	✓
Billing, receivables and cashiering	✓	✓	✓	✓	✓	✓	✓
Transfer Articulation		✓	✓				
Transcript Management		✓	✓				
Grading Functionality, and Integration with LMS	✓	✓	✓	✓	✓	✓	✓
Degree audit management	✓	✓	✓				
Support Career Credit/Workforce functionality	✓	✓	✓	✓		✓	✓

BLANK –N/A ✓ Feature Available ✓ On Vendor Roadmap ✓ Third Party ! May not meet needs ? Unknown

Requirement	Campus Management	Ellucian Banner	Ellucian Colleague	Jenzabar	Oracle Cloud	Unit 4	Workday
Advising and Degree Planning	✓	✓	✓	✓	✓	✓	✓
Faculty Workload Management	✓ ✓	✓	✓	✓	✓	✓	✓
Student employment		✓	✓	✓			
Financial aid Management	✓	✓	✓	✓	✓	✓	✓
Event-driven/effective-date-driven		✓	✓				
Student ID card management		✓					
Workflow capabilities for routing and approvals		✓					
Comprehensive online history		✓					
Dashboard Capabilities – for students to view and track: • Admission progress/missing items • Program completion progress • Financial aid info/awards and missing items • Veterans' benefits application progress • Application/Financial Aid Checklist • Current Program Enrollment	!	!		✓	✓	✓	✓
Enrollment funnel reporting functionality	✓	✓	✓	✓	✓	✓	✓
Import capabilities with duplicate checking to prevent multiple records for the same individual	!	!		!	!	!	!
Data entry in one location to feed many forms	!	✓	✓	✓	✓	✓	✓
Shopping cart-like registration experience	✓			✓	✓	✓	✓
Student Organization portal to maintain information, budgets and activities for clubs and organizations.	✓	✓		✓	✓		

BLANK –N/A ✓ Feature Available ✓ On Vendor Roadmap ✓ Third Party ! May not meet needs ? Unknown

Requirement	Campus Management	Ellucian Banner	Ellucian Colleague	Jenzabar	Oracle Cloud	Unit 4	Workday
FINANCIAL MANAGEMENT							
Financial Accounting/General Ledger/Chart of Accounts	✓	✓	✓	✓	✓	✓	✓
Multiple charts of accounts and entities	✓	✓		✓✓	✓	✓	✓
Flexibility in setting up types of charges, billing practices, and application of payments	✓	✓	✓	✓✓	✓	✓	✓
Reconciliation of transactions in user-designated bank accounts		✓	✓				
Accounts Payable/Receivable	✓	✓	✓	✓	✓	✓	✓
Customer Accounts		✓					
Supplier Accounts		✓					
Cash Management							
Expense Management		✓					
Procurement	✓	✓	✓	✓	✓	✓	✓
User-defined routing and approval of documents (for example, journals and AP invoices) with predefined approval levels		✓					✓
Business/Fixed Assets and Inventory	✓	✓					✓
Grants		✓					✓
Project and Work Management – Capital Projects or Maintenance	✓						✓
Housing Management	✓	✓	✓	!			
Budget Management	✓	✓		✓			

BLANK –N/A ✓ Feature Available ✓ On Vendor Roadmap ✓ Third Party ! May not meet needs ? Unknown

Requirement	Campus Management	Ellucian Banner	Ellucian Colleague	Jenzabar	Oracle Cloud	Unit 4	Workday
Cash Management							
Financial Reporting and Analysis	✓	✓	✓	✓	✓	✓	✓
Excel add-in that allows users to query data in real time direct from Microsoft Excel	✓	✓					
Report writer that allows users to build formatted financial statements such as comparative profit and loss (P&L) and balance sheets, actual/budget/variance analysis, etc.				✓			
Configure different invoice/statement formats	✓	✓		✓ ✓	✓	✓	✓
HR/PAYROLL							
Functionality for HR operations integrated into system	✓	✓	✓	✓	✓	✓	✓
Core HCM/Personnel Actions	✓	✓	✓		✓		✓
Core Compensation and Salary Adjustments	✓	✓	✓		✓		✓
Benefits Administration	✓	✓	✓		✓		✓
Absence Management	✓	✓	✓		✓		✓
Time Tracking	✓	✓	✓		✓		✓
Payroll	✓	✓	✓		✓		✓
Hiring and Onboarding	✓	✓			✓		✓
Manager Self-Service	✓	✓			✓		✓
Employee Self-Service	✓	✓	✓		✓		✓

BLANK –N/A ✓ Feature Available ✓ On Vendor Roadmap ✓ Third Party ! May not meet needs ? Unknown

Requirement	Campus Management	Ellucian Banner	Ellucian Colleague	Jenzabar	Oracle Cloud	Unit 4	Workday
Support for Automated Programming Interfaces (API) integration	✓	✓			✓		
Recruiting		✓					✓
Base Reports/Analytics and Dashboards							✓
Performance Management	✓	✓					✓
Talent Review		✓					
Succession Management							✓
Functionality to track COBRA, FMLA, compensatory time, workers compensation leave, etc.	✓	✓		!	✓	✓	✓
INSTITUTIONAL RESEARCH/ EFFECTIVENESS AND ANALYTICS							
Built-in dashboards and operating analytics	✓	✓	✓	✓	✓	✓	✓
Relational database, with access to data and the ability to extract data	✓	✓	✓	✓	✓	✓	✓
Simplified reporting tool that anyone can use	✓	!	✓	✓	✓	✓	✓
California Community College reporting requirements		✓	✓				✓

Vendor and Technical Highlights

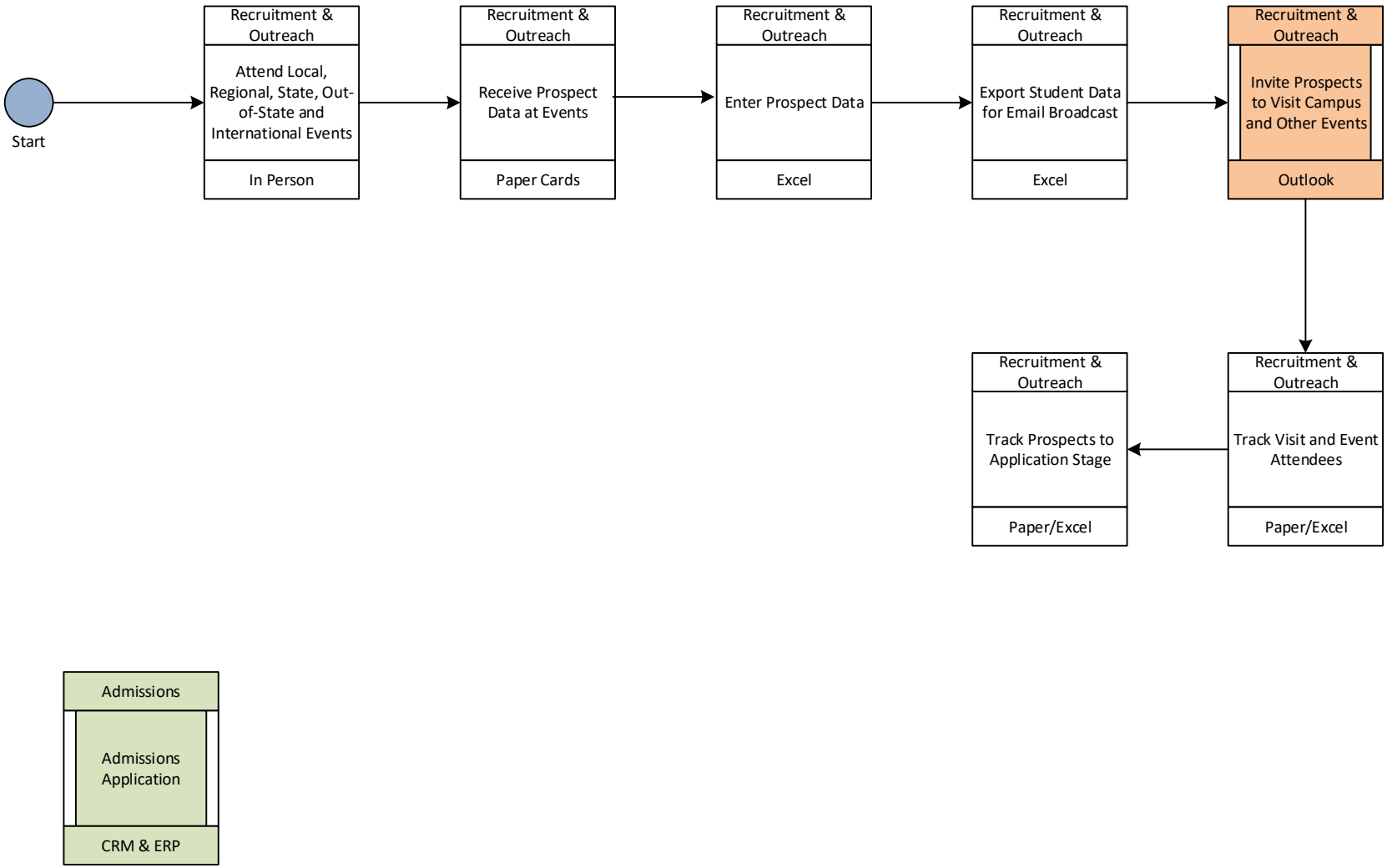
	Campus Management	Ellucian	Jenzabar	Oracle	Unit 4	Workday
Products Offered	CampusNexus® Student	Banner® by Ellucian	Jenzabar® Advancement	Oracle Cloud Solutions	Legacy Systems QLS	Workday Financial Management

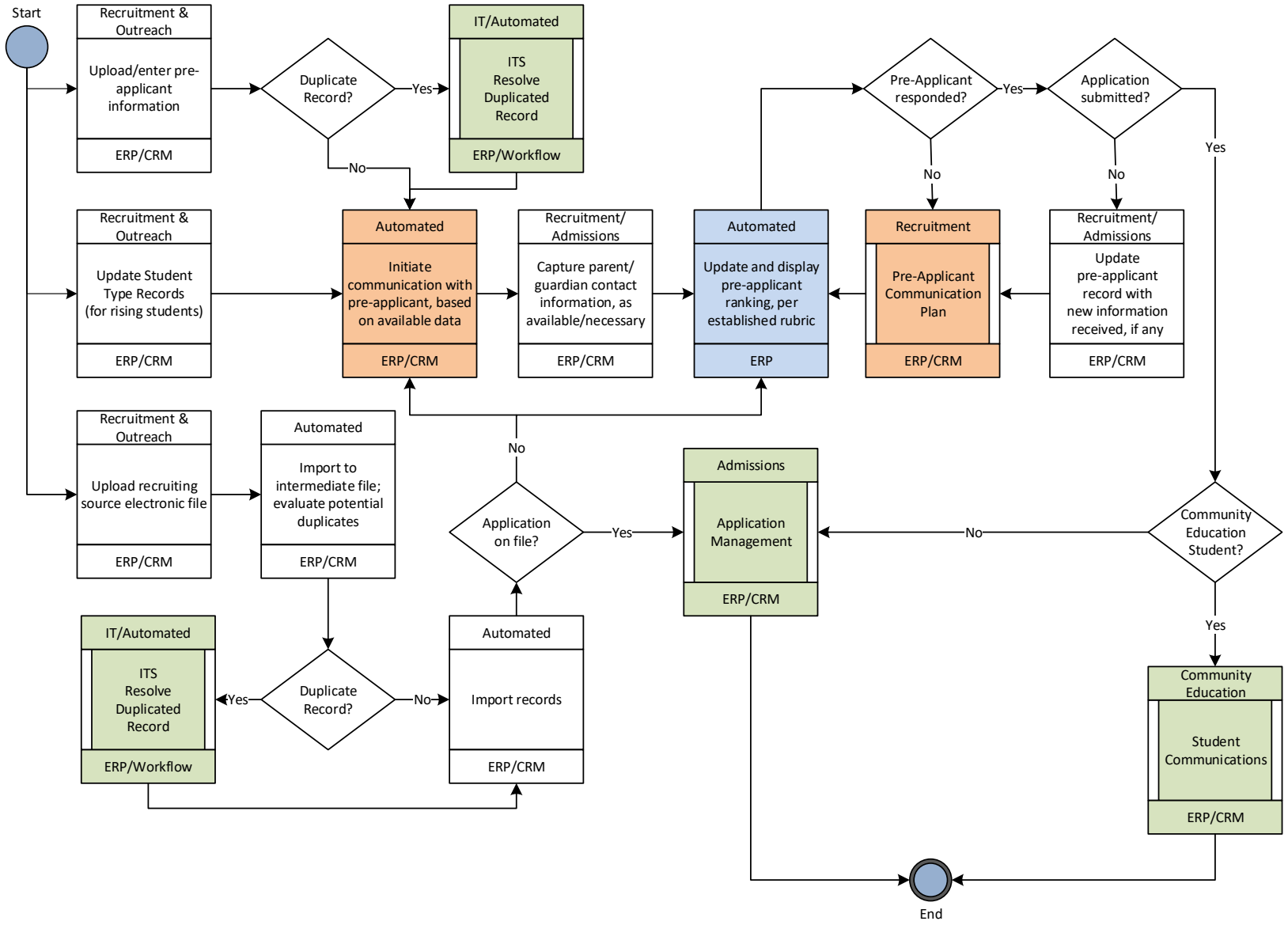
	Campus Management	Ellucian	Jenzabar	Oracle	Unit 4	Workday
	CampusNexus® CRM CampusNexus® Finance, HR & Payroll Talisma® Fundraising Retention360™ Radius, AppReview, ApplyYourself, Connect, and Retain CRM (from Hobsons)	Colleague® by Ellucian PowerCampus™ by Ellucian Ellucian Elevate™ Ellucian CRM Recruit Ellucian CRM Advise Ellucian Talent Management Suite Ellucian CRM Ellucian Mobile Ellucian eTranscripts	Jenzabar® Analytics and Reporting Jenzabar Higher Reach Jenzabar Financial Aid Systems Jenzabar Guided Pathways to Success [GPS] Jenzabar eLearning Jenzabar Recruitment Jenzabar Retention/ Early Alert Jenzabar® Student Information Systems	Oracle Enterprise Resource Planning (ERP) Oracle Student Oracle Human Capital Management (HCM) Oracle Mobile Cloud Services. Oracle BI Cloud services. Peoplesoft Campus Solutions	EMS CAMS Enterprise Cloud Solution Unit4 Business World On! Unit4 Student Management Unit4 Research Management	Financial Performance Management Workday Human Capital Management Prism Analytics Professional Services Automation Workday Student
Client Base	2,000 Campuses, 1,100 institutions, 300,000 students in 30 countries	2,500 institutions and 18 million students in 50 countries *Banner* - 1,400 clients in 40+ countries *Colleague* - 650 clients in the U.S. and Canada *PowerCampus* - 225 international	1,300 campuses across the nation and world Jenzabar EX - 360 clients Jenzabar JX - 66 institutions Jenzabar CX - 115 clients Sonis - 103 clients	430,000 customers in 175 countries 350+ Higher education institutions globally using Oracle Cloud solutions	1,000 higher education clients globally 30 clients across several continents are in varied stages of implementation with Unit4 Student Management	600+ clients across all industries (HCM/Finance)
Technical Highlights	Competency-based education built into native application and supported through financial aid	Solutions hosted No native cloud-developed solutions	Migrating to a single platform for their current portfolio—CX, EX, JX. New platform called Jenzabar One	Student system development tracking to schedule, except for Financial Aid	Leverages Agresso legacy solution New solution in development	Intuitive user interface Native cloud solution Continue to develop the HCM solution to

	Campus Management	Ellucian	Jenzabar	Oracle	Unit 4	Workday
	Strong CRM Deliver their own implementations	Delivering their own implementations, but that could change Colleague and Banner are feature rich MS 365-developed solutions are interfaced, not integrated into the base products	and built on Jenzabar EX Combination of the disparate products is moving slowly CRM solution driven by Salesforce Deliver their own implementations	Architecture is flexible to handle single instance with multiple colleges Native cloud solution Finance & HCM implementations for higher education cloud products are limited Oracle Consulting Services have been reinvigorated in the last few months	Deliver their own implementations Completing a redesign for implementation approach	accommodate higher education requirements Solution typically implemented through a third party
Things to Consider	Student system still in development	Few new accounts; working to retain their client base with the advent of new competitors.	Long history of hosted solutions and application management services No native cloud-developed solution	Delays in financial aid development No enterprise student system cloud implementations completed yet	Development delays have impacted completion of student system, particularly financial aid	Student system in development Challenges with first delivery of financial aid HCM and Finance must be deployed prior to the Student module. Student module is not currently stand alone

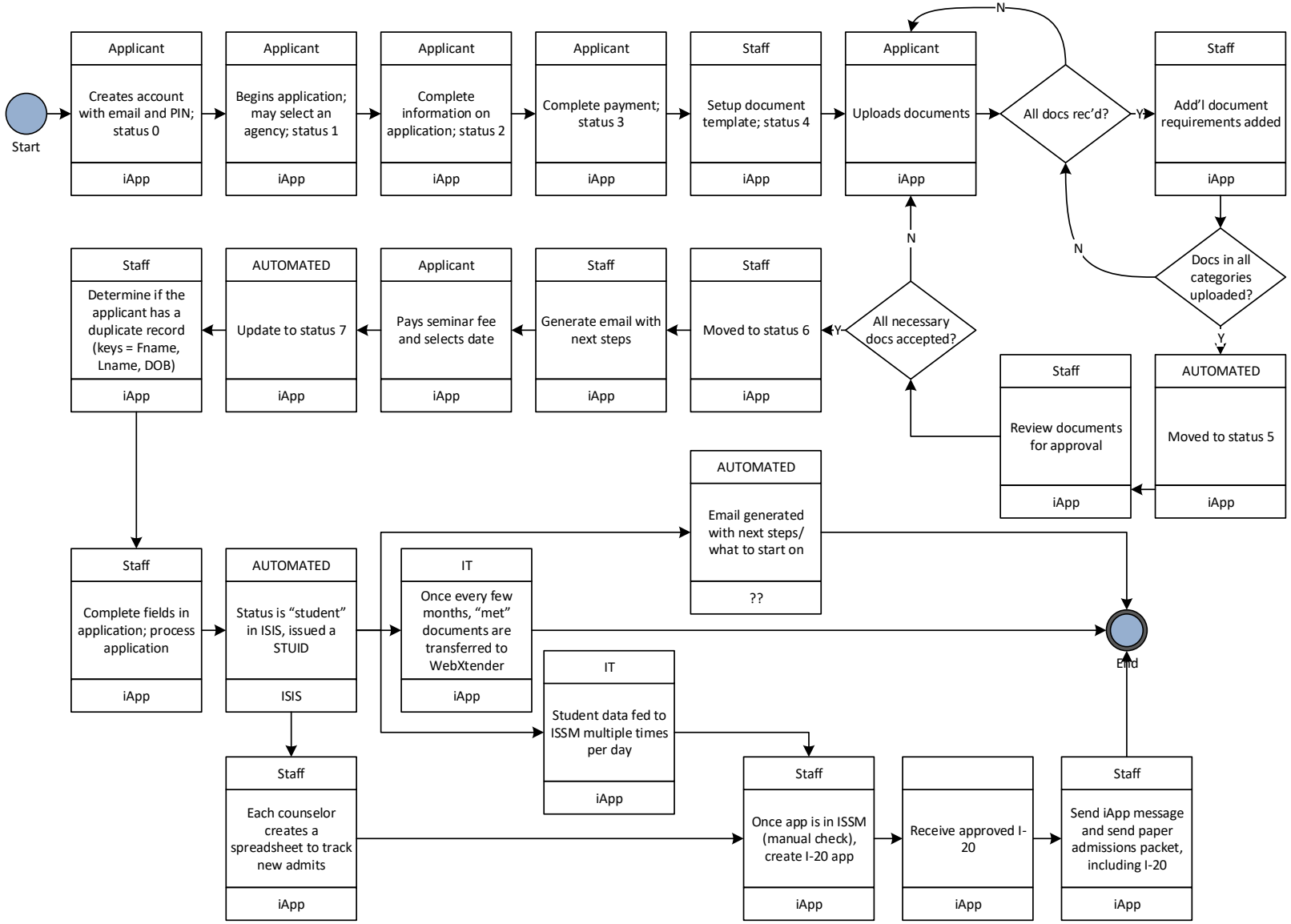
APPENDIX A
Recruitment Process Maps

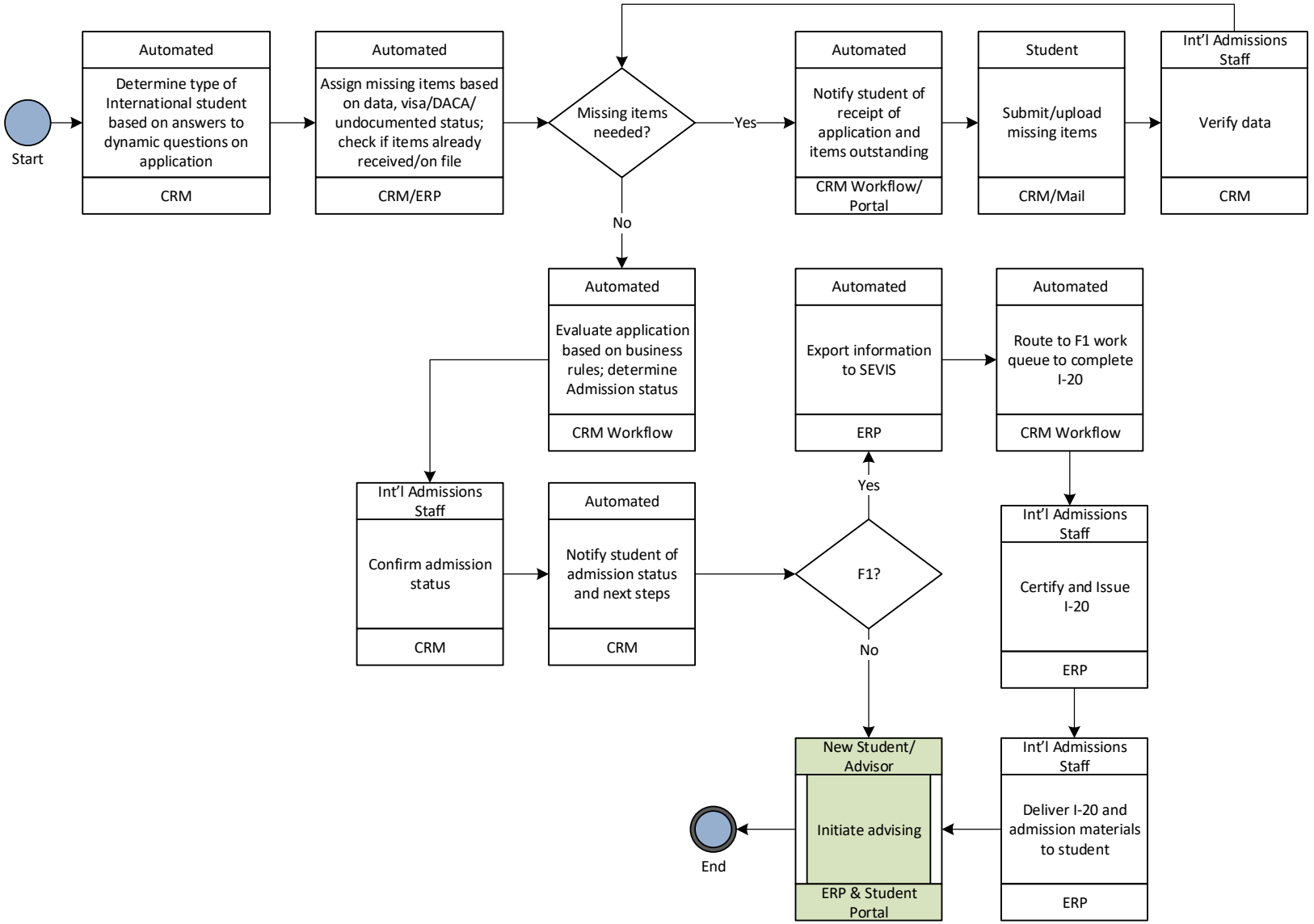
Recruitment and Outreach—Current April 2019




Start
Recruitment & Outreach
Upload/enter pre-applicant information
ERP/CRM
Duplicate Record?
Yes
No
IT/Automated
ITS Resolve Duplicated Record
ERP/Workflow
Recruitment & Outreach
Update Student Type Records (for rising students)
ERP/CRM
Automated
Initiate communication with pre-applicant, based on available data
ERP/CRM
Recruitment/ Admissions
Capture parent/ guardian contact information, as available/necessary
ERP/CRM
Automated
Update and display pre-applicant ranking, per established rubric
ERP
Pre-Applicant responded?
Yes
No
Recruitment
Pre-Applicant Communication Plan
ERP/CRM
Application submitted?
Yes
No
Recruitment/ Admissions
Update pre-applicant record with new information received, if any
ERP/CRM
Recruitment & Outreach
Upload recruiting source electronic file
ERP/CRM
Automated
Import to intermediate file; evaluate potential duplicates
ERP/CRM
Application on file?
No
Yes
Admissions
Application Management
ERP/CRM
Community Education Student?
No
Yes
Community Education
Student Communications
ERP/CRM
IT/Automated
ITS Resolve Duplicated Record
ERP/Workflow
Duplicate Record?
Yes
No
Automated
Import records
ERP/CRM
End

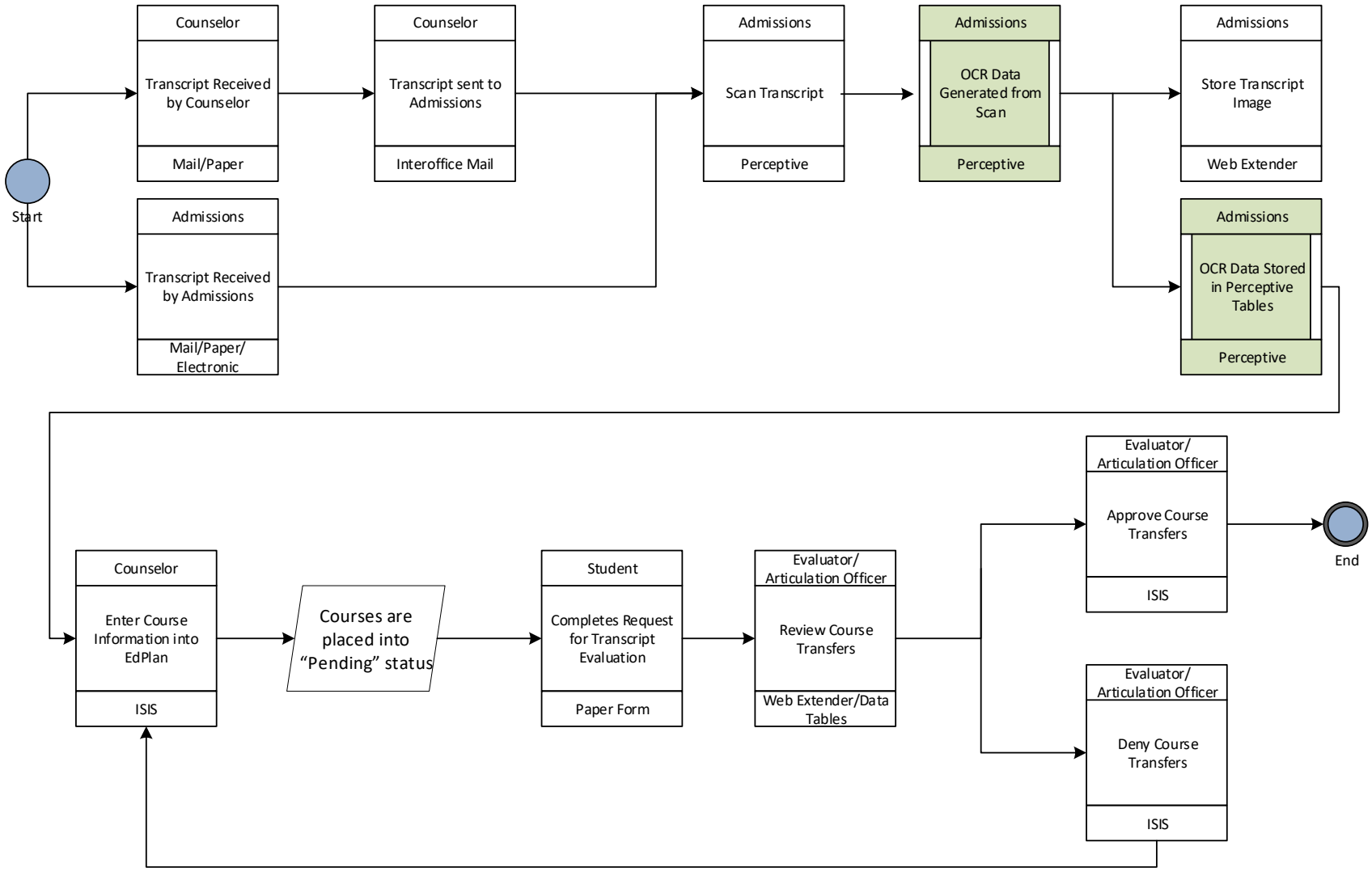
APPENDIX B
Admissions Process Maps

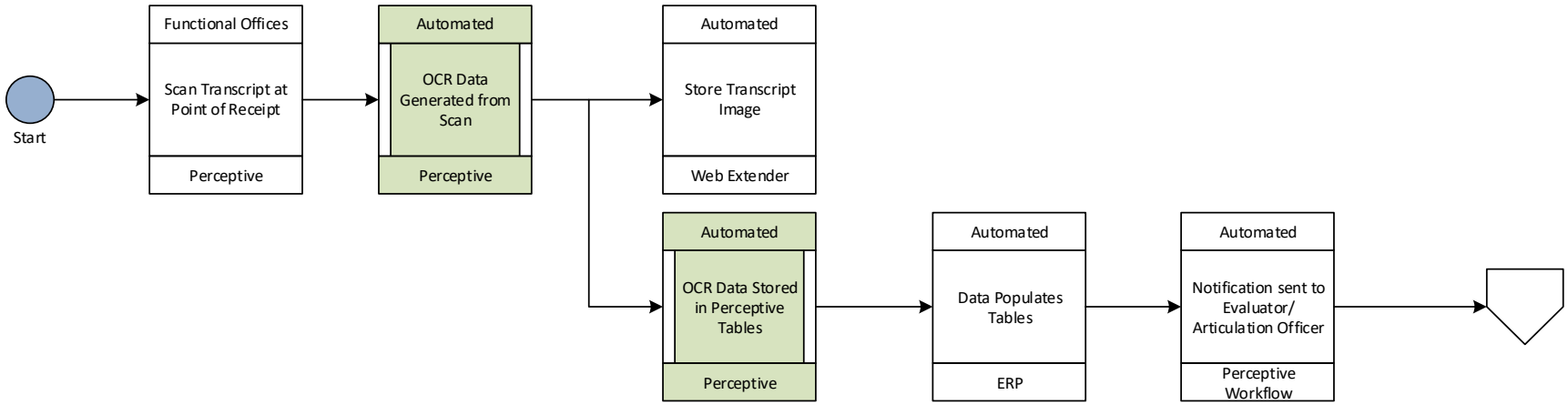

Start
Applicant
Creates account with email and PIN; status 0
iApp
Applicant
Begins application; may select an agency; status 1
iApp
Applicant
Complete information on application; status 2
iApp
Applicant
Complete payment; status 3
iApp
Staff
Setup document template; status 4
iApp
Applicant
Uploads documents
iApp
All docs rec'd?
N
Y
Staff
Add'l document requirements added
iApp
Docs in all categories uploaded?
N
Y
AUTOMATED
Moved to status 5
iApp
Staff
Review documents for approval
iApp
All necessary docs accepted?
N
Y
Staff
Moved to status 6
iApp
Staff
Generate email with next steps
iApp
Applicant
Pays seminar fee and selects date
iApp
AUTOMATED
Update to status 7
iApp
Staff
Determine if the applicant has a duplicate record (keys = Fname, Lname, DOB)
iApp
AUTOMATED
Email generated with next steps/ what to start on
??
Staff
Complete fields in application; process application
iApp
AUTOMATED
Status is "student" in ISIS, issued a STUID
ISIS
IT
Once every few months, "met" documents are transferred to WebXtender
iApp
IT
Student data fed to ISSM multiple times per day
iApp
End
Staff
Each counselor creates a spreadsheet to track new admits
iApp
Staff
Once app is in ISSM (manual check), create I-20 app
iApp
Receive approved I-20
iApp
Staff
Send iApp message and send paper admissions packet, including I-20
iApp


Start
Automated
Determine type of International student based on answers to dynamic questions on application
CRM
Automated
Assign missing items based on data, visa/DACA/ undocumented status; check if items already received/on file
CRM/ERP
Missing items needed?
Yes
No
Automated
Notify student of receipt of application and items outstanding
CRM Workflow/ Portal
Student
Submit/upload missing items
CRM/Mail
Int'l Admissions Staff
Verify data
CRM
Automated
Evaluate application based on business rules; determine Admission status
CRM Workflow
Automated
Export information to SEVIS
ERP
Automated
Route to F1 work queue to complete I-20
CRM Workflow
Int'l Admissions Staff
Confirm admission status
CRM
Automated
Notify student of admission status and next steps
CRM
F1?
Yes
No
Int'l Admissions Staff
Certify and Issue I-20
ERP
End
New Student/ Advisor
Initiate advising
ERP & Student Portal
Int'l Admissions Staff
Deliver I-20 and admission materials to student
ERP

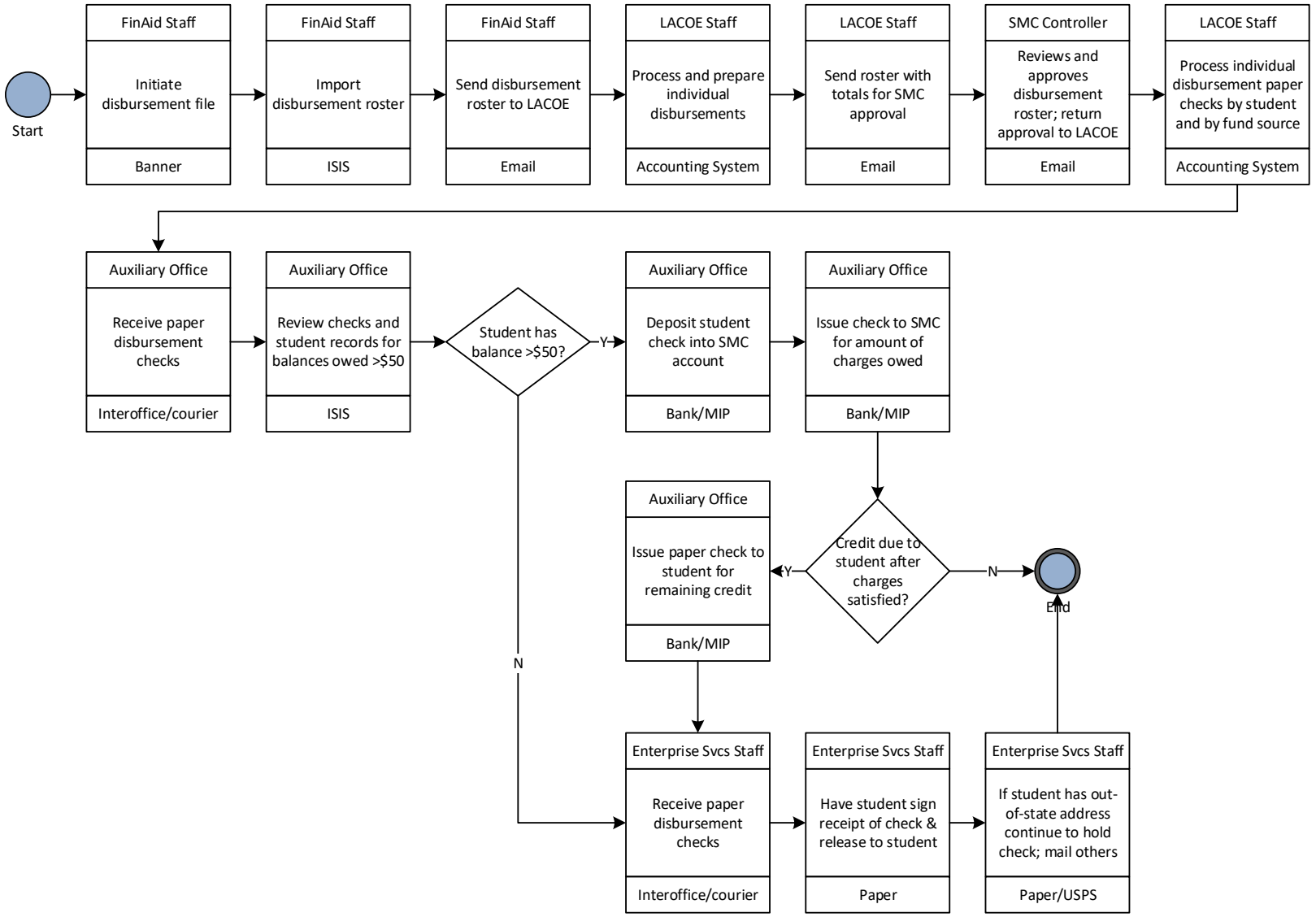
APPENDIX C
Student and Academic Services Process Maps

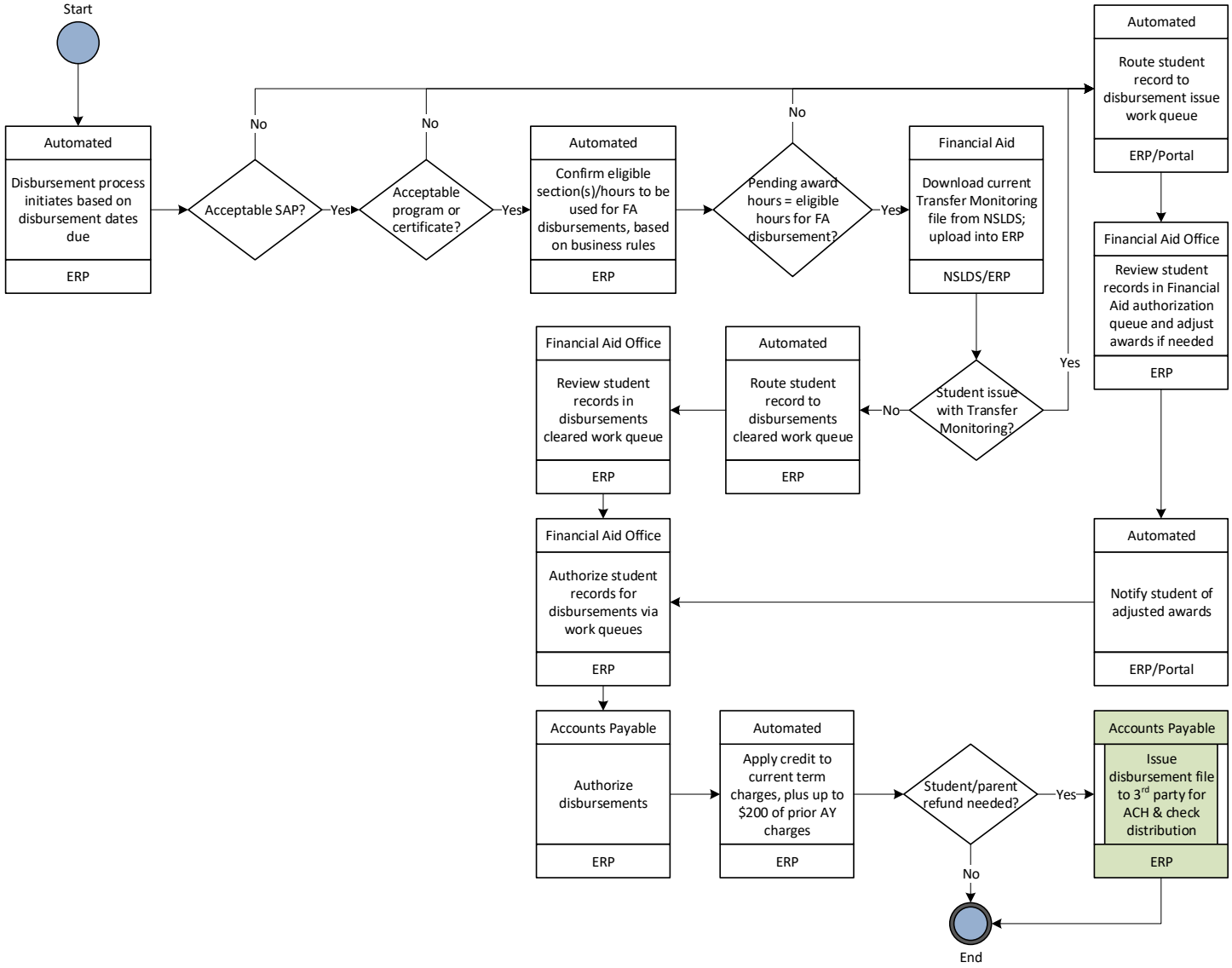
Transcript Evaluation—Current April 2019



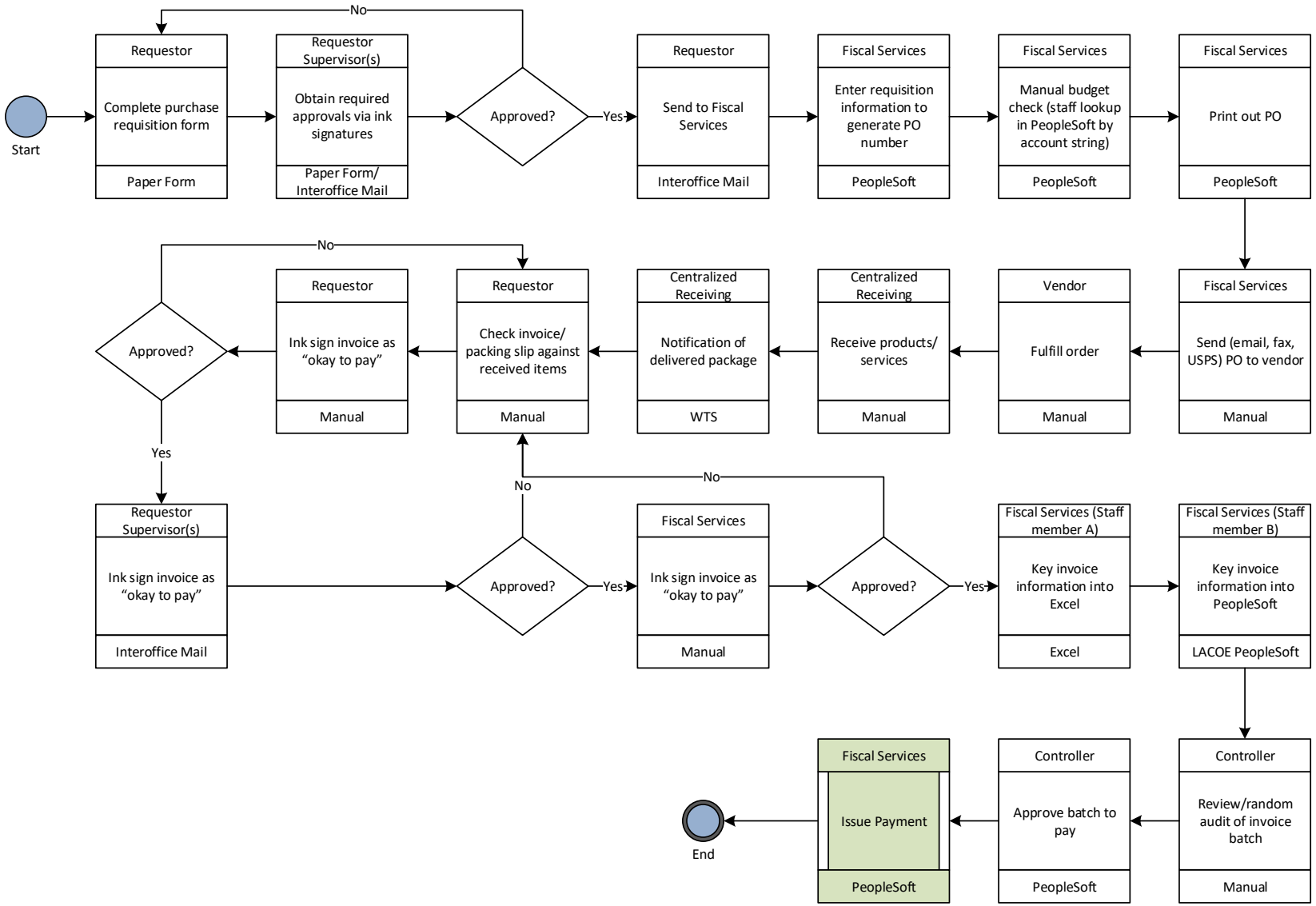

Start
Functional Offices
Scan Transcript at Point of Receipt
Perceptive
Automated
OCR Data Generated from Scan
Perceptive
Automated
Store Transcript Image
Web Extender
Automated
OCR Data Stored in Perceptive Tables
Perceptive
Automated
Data Populates Tables
ERP
Automated
Notification sent to Evaluator/ Articulation Officer
Perceptive Workflow

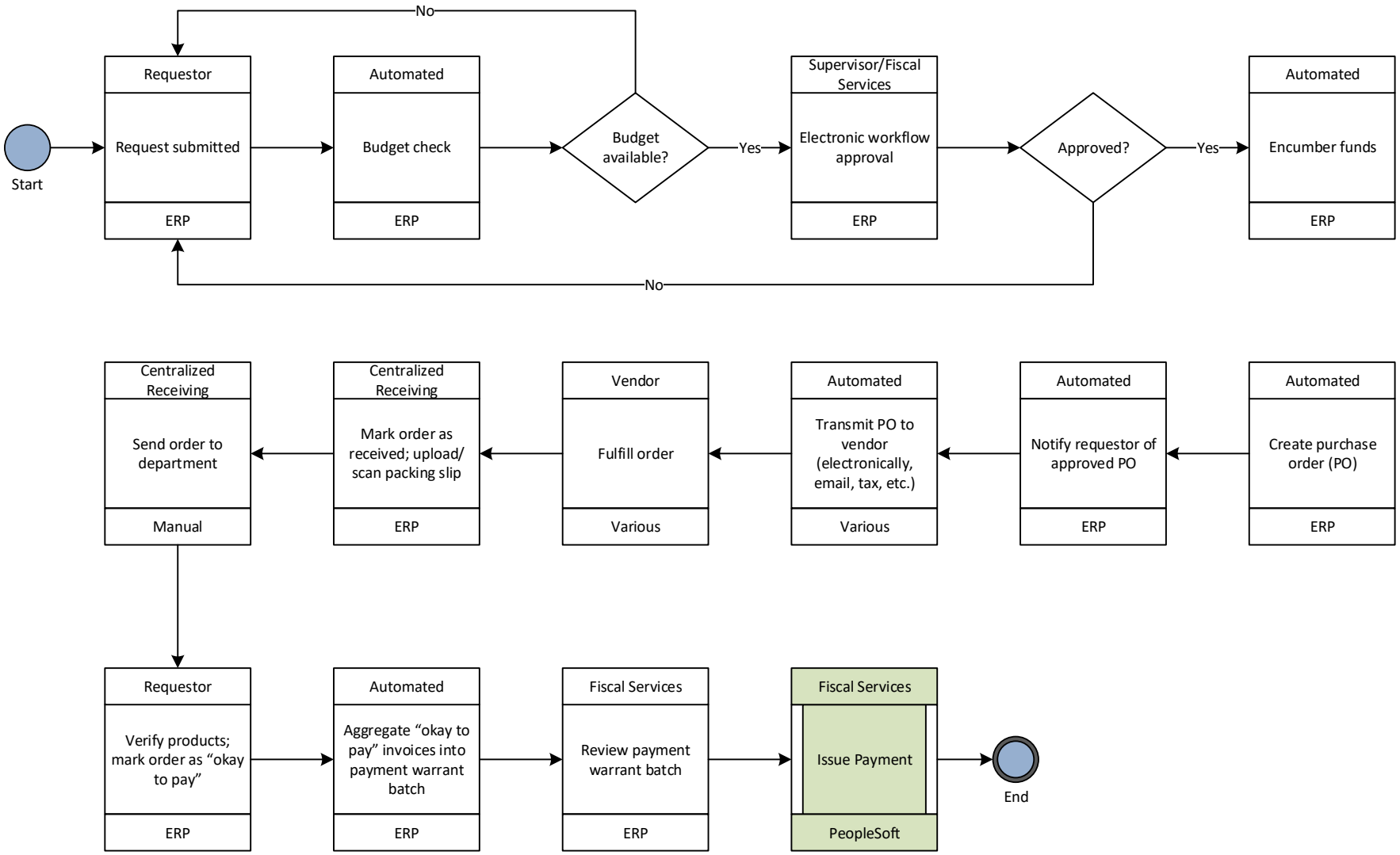
APPENDIX D
Financial Aid Process Maps


Start
FinAid Staff
Initiate disbursement file
Banner
FinAid Staff
Import disbursement roster
ISIS
FinAid Staff
Send disbursement roster to LACOE
Email
LACOE Staff
Process and prepare individual disbursements
Accounting System
LACOE Staff
Send roster with totals for SMC approval
Email
SMC Controller
Reviews and approves disbursement roster; return approval to LACOE
Email
LACOE Staff
Process individual disbursement paper checks by student and by fund source
Accounting System
Auxiliary Office
Receive paper disbursement checks
Interoffice/courier
Auxiliary Office
Review checks and student records for balances owed >$50
ISIS
Student has balance >$50?
Y
N
Auxiliary Office
Deposit student check into SMC account
Bank/MIP
Auxiliary Office
Issue check to SMC for amount of charges owed
Bank/MIP
Credit due to student after charges satisfied?
Y
N
End
Auxiliary Office
Issue paper check to student for remaining credit
Bank/MIP
Enterprise Svcs Staff
Receive paper disbursement checks
Interoffice/courier
Enterprise Svcs Staff
Have student sign receipt of check & release to student
Paper
Enterprise Svcs Staff
If student has out-of-state address continue to hold check; mail others
Paper/USPS

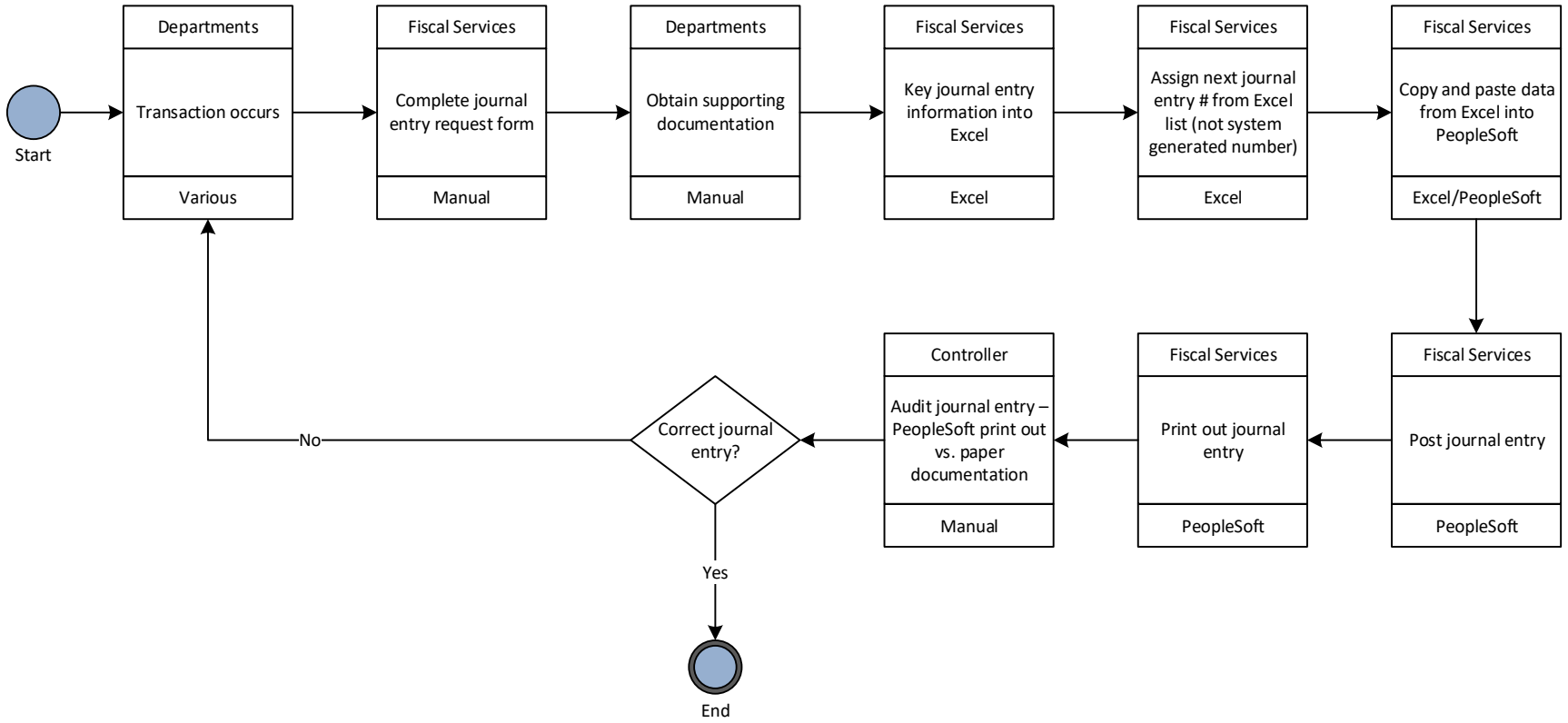

Start
Automated
Disbursement process initiates based on disbursement dates due
ERP
Acceptable SAP?
No
Yes
Acceptable program or certificate?
No
Yes
Automated
Confirm eligible section(s)/hours to be used for FA disbursements, based on business rules
ERP
Pending award hours = eligible hours for FA disbursement?
No
Yes
Financial Aid
Download current Transfer Monitoring file from NSLDS; upload into ERP
NSLDS/ERP
Student issue with Transfer Monitoring?
No
Yes
Automated
Route student record to disbursement issue work queue
ERP/Portal
Financial Aid Office
Review student records in Financial Aid authorization queue and adjust awards if needed
ERP
Automated
Route student record to disbursements cleared work queue
ERP
Financial Aid Office
Review student records in disbursements cleared work queue
ERP
Financial Aid Office
Authorize student records for disbursements via work queues
ERP
Automated
Notify student of adjusted awards
ERP/Portal
Accounts Payable
Authorize disbursements
ERP
Automated
Apply credit to current term charges, plus up to $200 of prior AY charges
ERP
Student/parent refund needed?
Yes
No
Accounts Payable
Issue disbursement file to 3rd party for ACH & check distribution
ERP
End

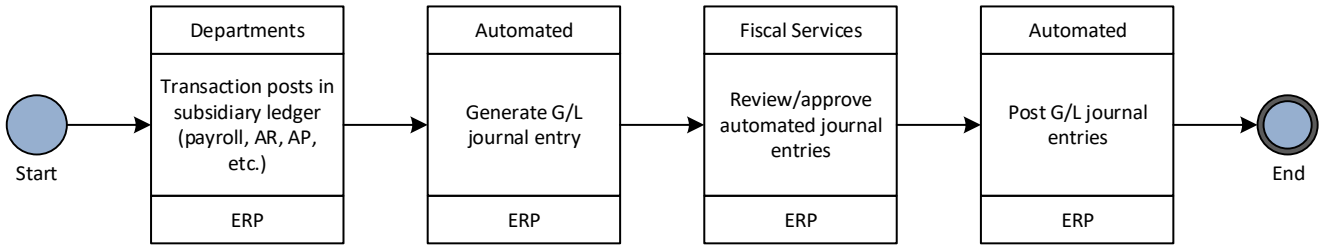
APPENDIX E
Finance Process Maps

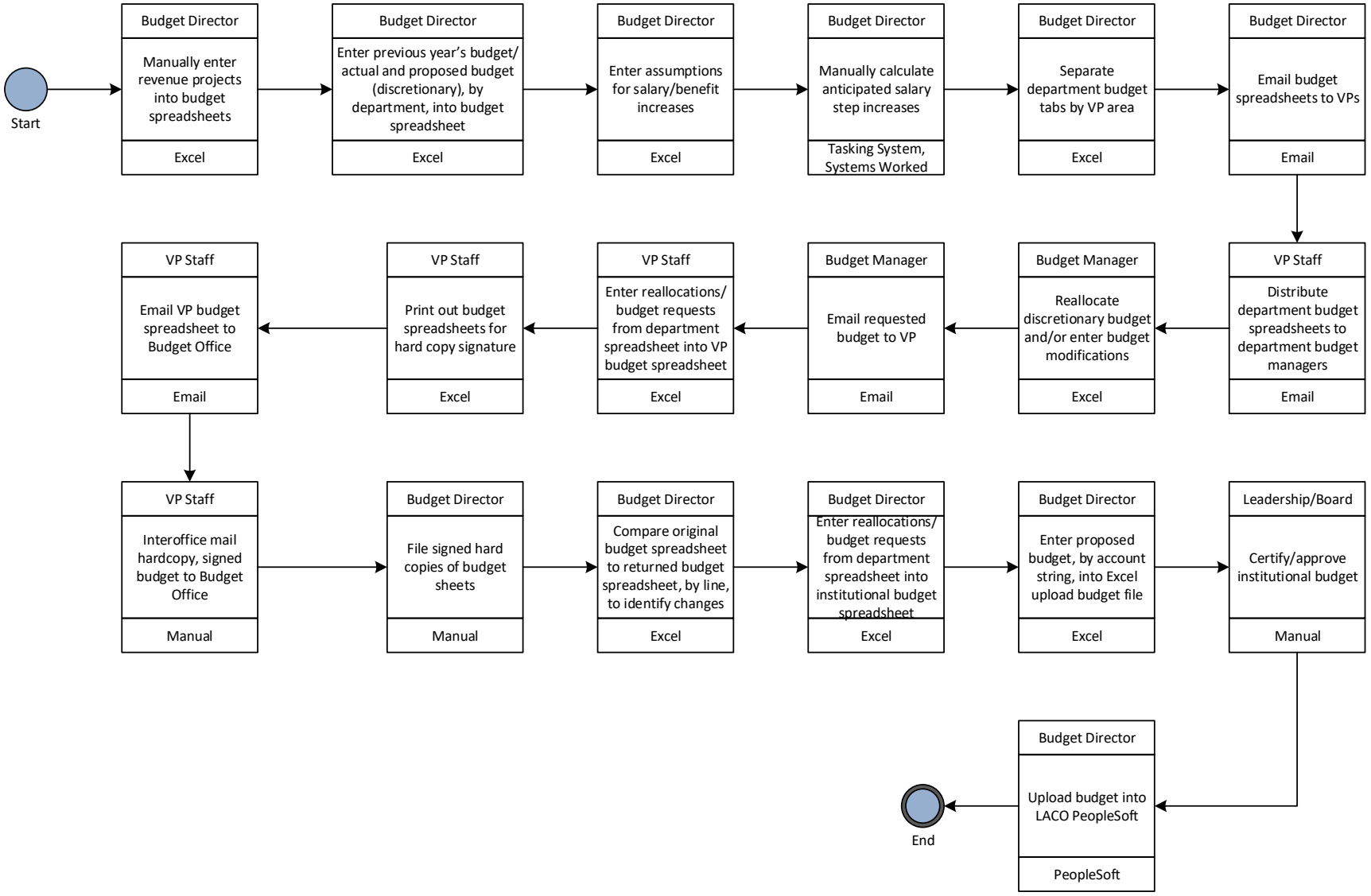

Start
Requestor
Complete purchase requisition form
Paper Form
Requestor Supervisor(s)
Obtain required approvals via ink signatures
Paper Form/ Interoffice Mail
Approved?
No
Yes
Requestor
Send to Fiscal Services
Interoffice Mail
Fiscal Services
Enter requisition information to generate PO number
PeopleSoft
Fiscal Services
Manual budget check (staff lookup in PeopleSoft by account string)
PeopleSoft
Fiscal Services
Print out PO
PeopleSoft
Fiscal Services
Send (email, fax, USPS) PO to vendor
Manual
Vendor
Fulfill order
Manual
Centralized Receiving
Receive products/ services
Manual
Centralized Receiving
Notification of delivered package
WTS
Requestor
Check invoice/ packing slip against received items
Manual
Requestor
Ink sign invoice as "okay to pay"
Manual
Approved?
No
Yes
Requestor Supervisor(s)
Ink sign invoice as "okay to pay"
Interoffice Mail
Approved?
No
Yes
Fiscal Services
Ink sign invoice as "okay to pay"
Manual
Approved?
No
Yes
Fiscal Services (Staff member A)
Key invoice information into Excel
Excel
Fiscal Services (Staff member B)
Key invoice information into PeopleSoft
LACOE PeopleSoft
Controller
Review/random audit of invoice batch
Manual
Controller
Approve batch to pay
PeopleSoft
Fiscal Services
Issue Payment
PeopleSoft
End

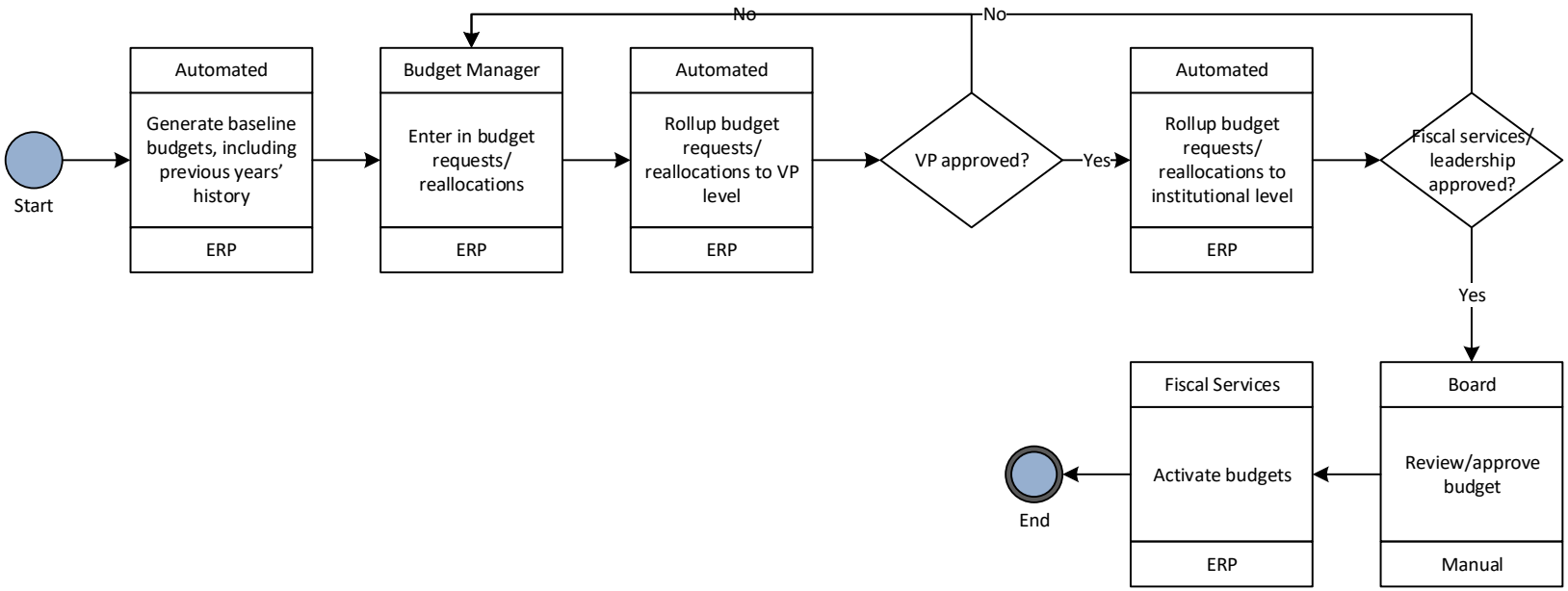

No
Requestor
Request submitted
ERP
Automated
Budget check
ERP
Budget available?
Yes
Supervisor/Fiscal Services
Electronic workflow approval
ERP
Approved?
Yes
Automated
Encumber funds
ERP
Start
No
Centralized Receiving
Send order to department
Manual
Centralized Receiving
Mark order as received; upload/ scan packing slip
ERP
Vendor
Fulfill order
Various
Automated
Transmit PO to vendor (electronically, email, tax, etc.)
Various
Automated
Notify requestor of approved PO
ERP
Automated
Create purchase order (PO)
ERP
Requestor
Verify products; mark order as "okay to pay"
ERP
Automated
Aggregate "okay to pay" invoices into payment warrant batch
ERP
Fiscal Services
Review payment warrant batch
ERP
Fiscal Services
Issue Payment
PeopleSoft
End

Journal Entry—Current April 2019




Start
Departments
Transaction posts in subsidiary ledger (payroll, AR, AP, etc.)
ERP
Automated
Generate G/L journal entry
ERP
Fiscal Services
Review/approve automated journal entries
ERP
Automated
Post G/L journal entries
ERP
End

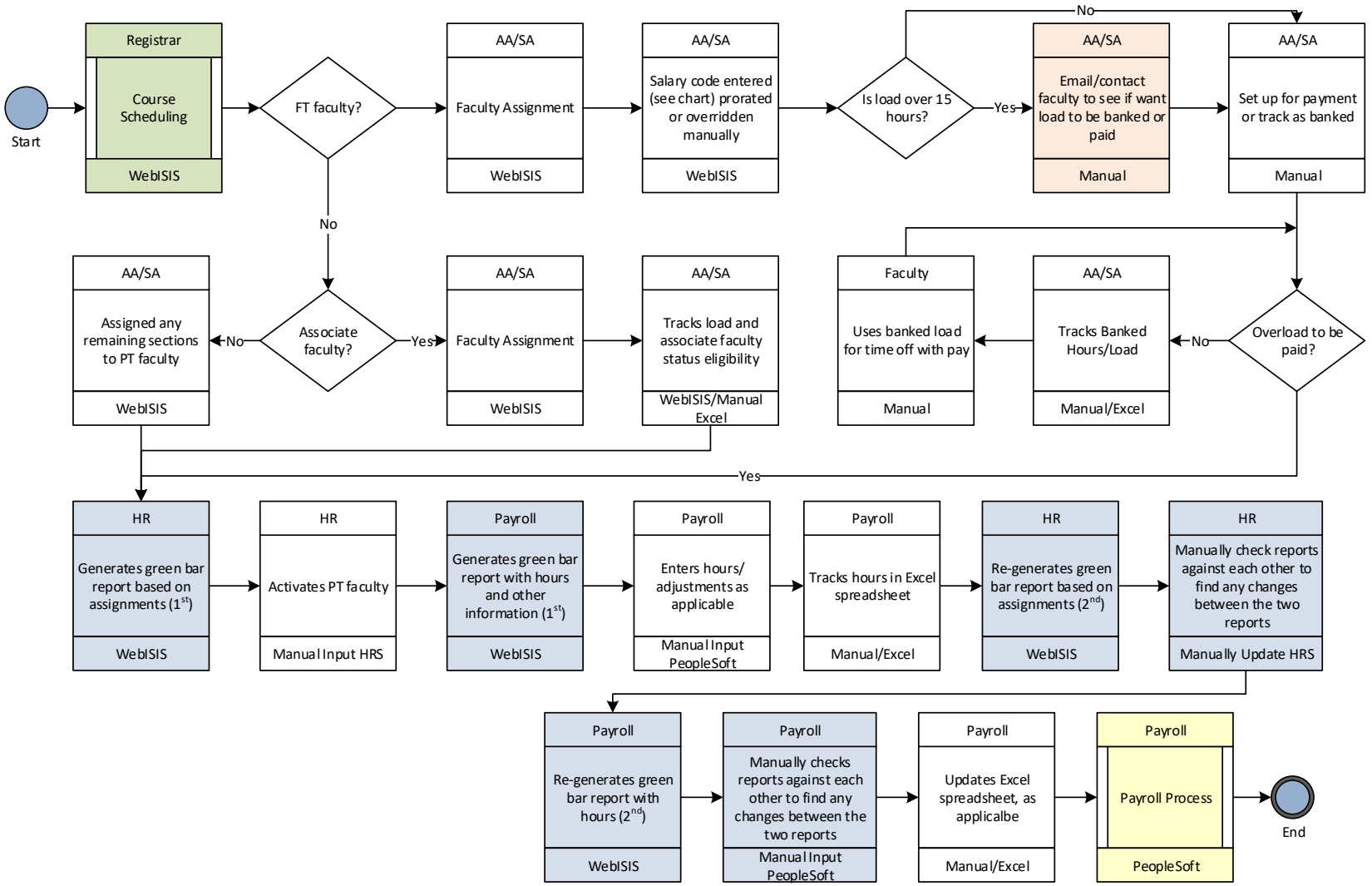

Start
Budget Director
Manually enter revenue projects into budget spreadsheets
Excel
Budget Director
Enter previous year's budget/ actual and proposed budget (discretionary), by department, into budget spreadsheet
Excel
Budget Director
Enter assumptions for salary/benefit increases
Excel
Budget Director
Manually calculate anticipated salary step increases
Tasking System, Systems Worked
Budget Director
Separate department budget tabs by VP area
Excel
Budget Director
Email budget spreadsheets to VPs
Email
VP Staff
Distribute department budget spreadsheets to department budget managers
Email
Budget Manager
Reallocate discretionary budget and/or enter budget modifications
Excel
Budget Manager
Email requested budget to VP
Email
VP Staff
Enter reallocations/ budget requests from department spreadsheet into VP budget spreadsheet
Excel
VP Staff
Print out budget spreadsheets for hard copy signature
Excel
VP Staff
Email VP budget spreadsheet to Budget Office
Email
VP Staff
Interoffice mail hardcopy, signed budget to Budget Office
Manual
Budget Director
File signed hard copies of budget sheets
Manual
Budget Director
Compare original budget spreadsheet to returned budget spreadsheet, by line, to identify changes
Excel
Budget Director
Enter reallocations/ budget requests from department spreadsheet into institutional budget spreadsheet
Excel
Budget Director
Enter proposed budget, by account string, into Excel upload budget file
Excel
Leadership/Board
Certify/approve institutional budget
Manual
Budget Director
Upload budget into LACO PeopleSoft
PeopleSoft
End


Start
Automated
Generate baseline budgets, including previous years' history
ERP
Budget Manager
Enter in budget requests/ reallocations
ERP
Automated
Rollup budget requests/ reallocations to VP level
ERP
VP approved?
No
Yes
Automated
Rollup budget requests/ reallocations to institutional level
ERP
Fiscal services/ leadership approved?
No
Yes
Board
Review/approve budget
Manual
Fiscal Services
Activate budgets
ERP
End

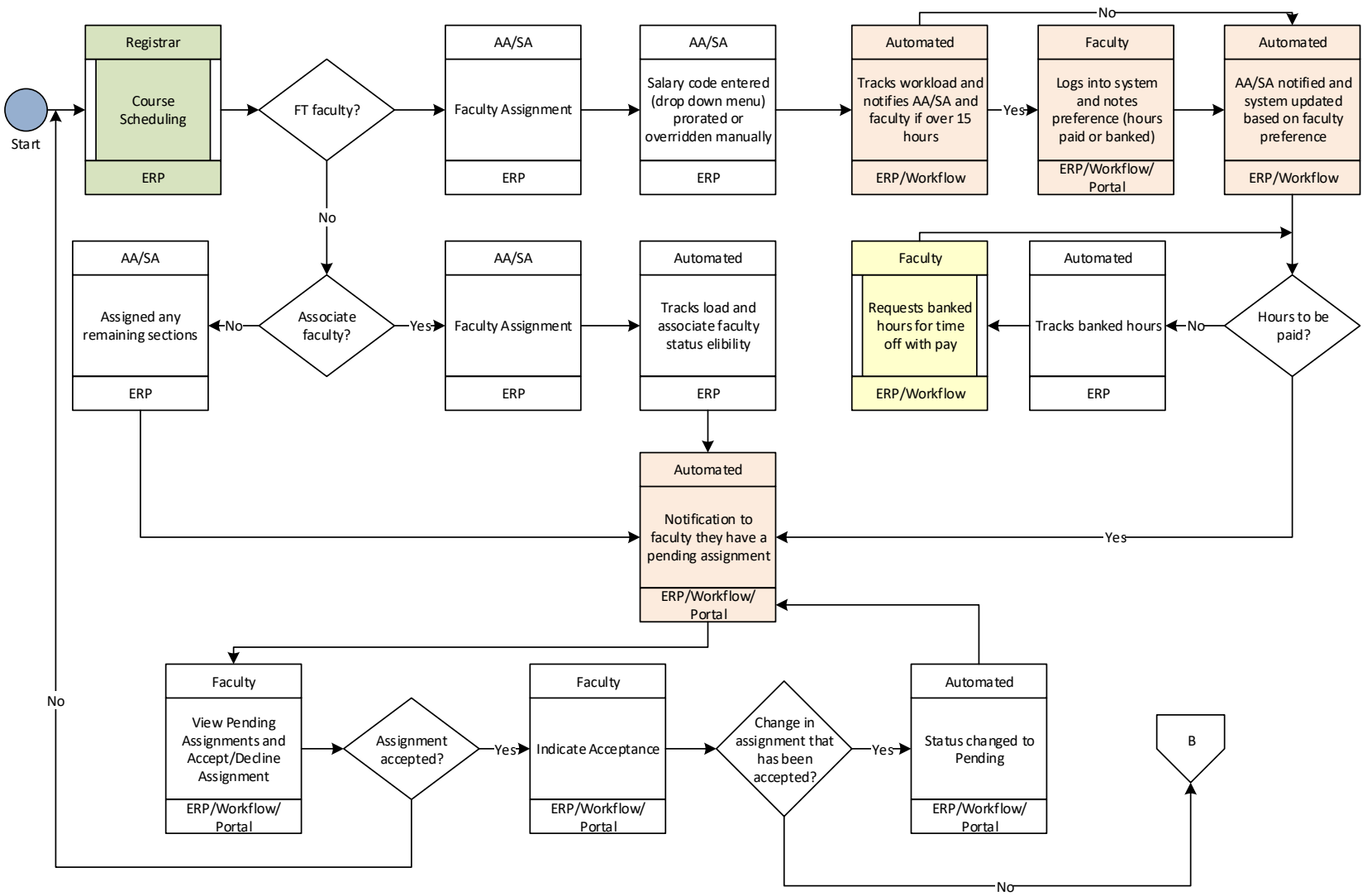
APPENDIX F
Human Resources Process Maps

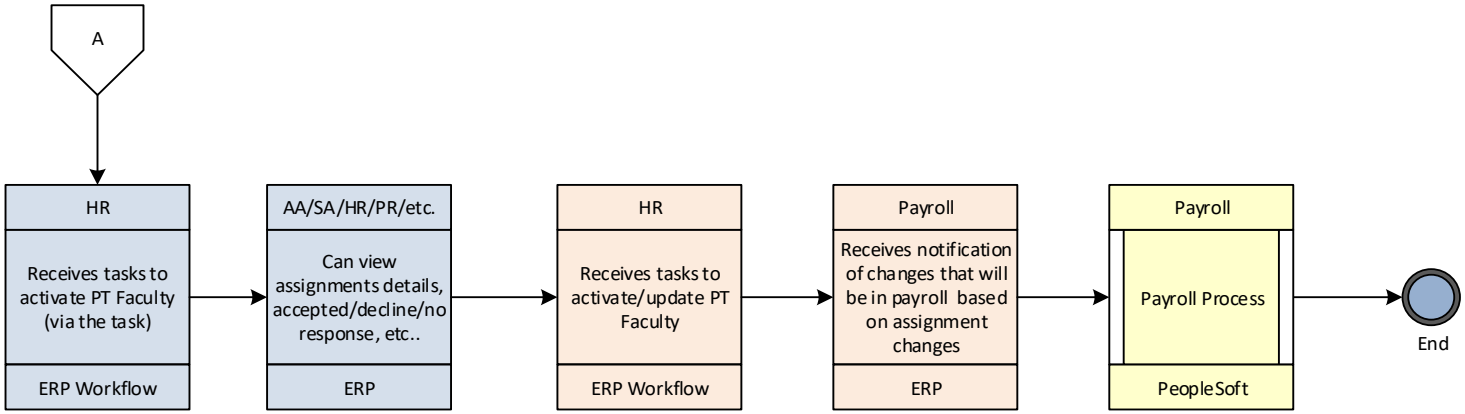
Faculty Assignment Offer and Processing—Current

April 2019

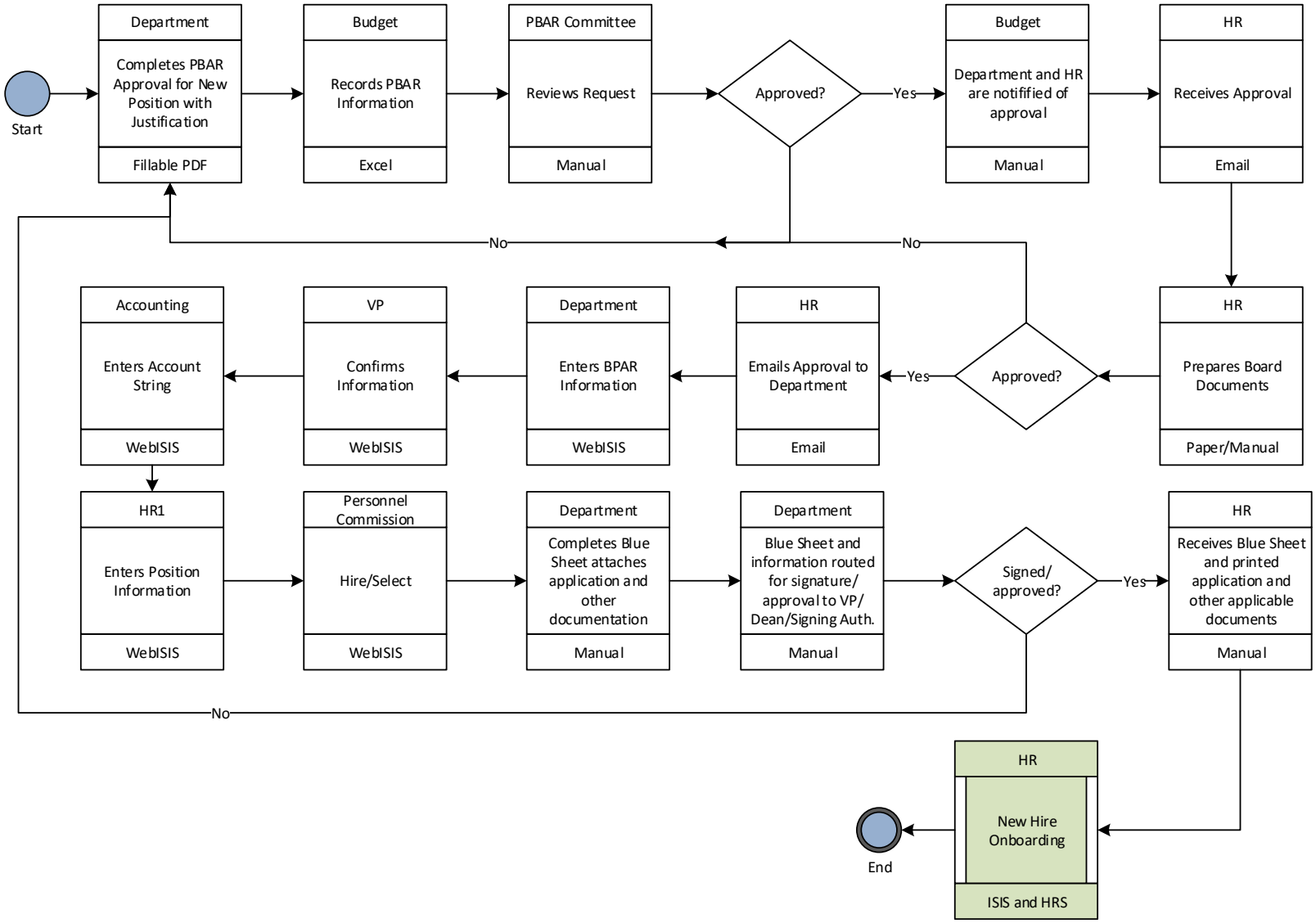


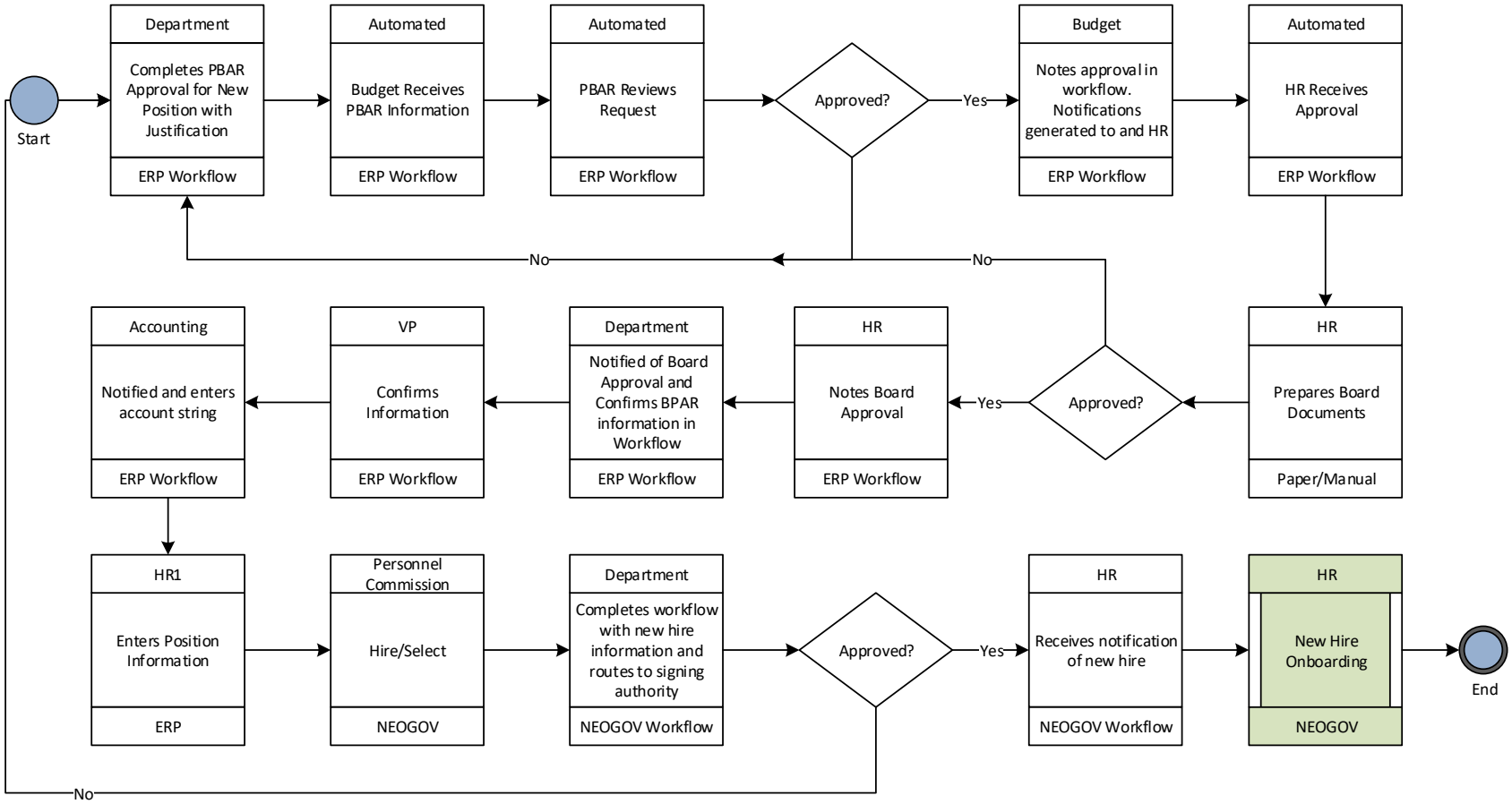
Faculty Assignment Offer and Processing—Recommended April 2019



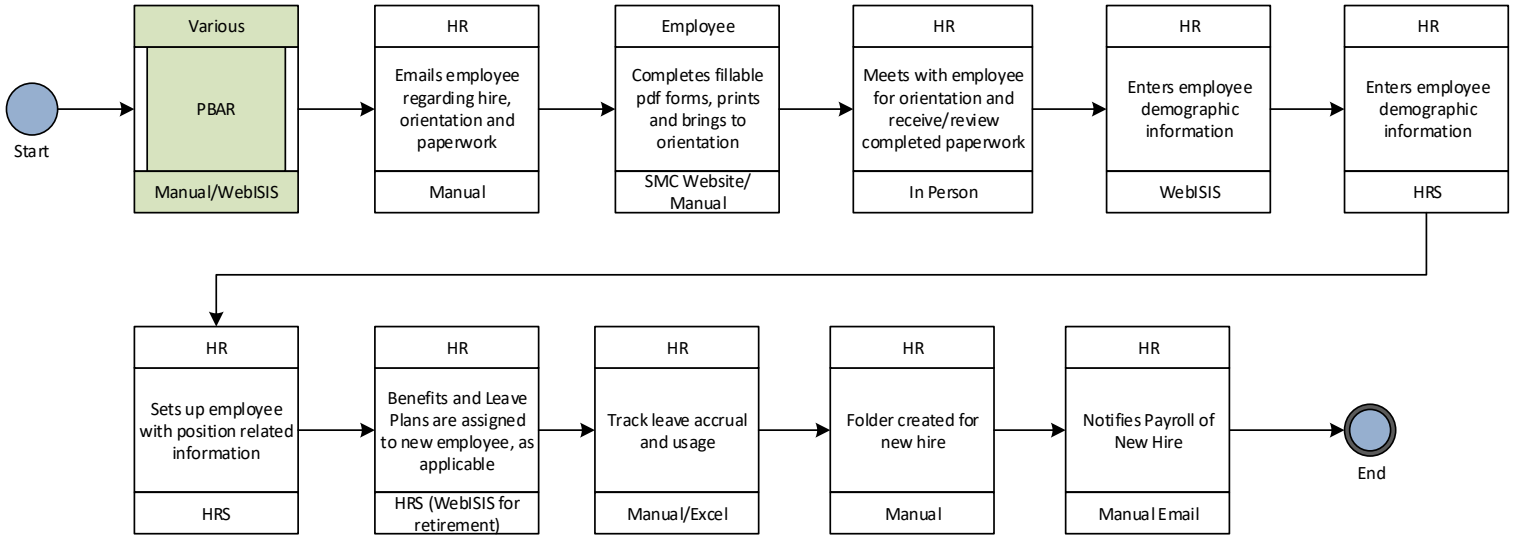

A
HR
Receives tasks to activate PT Faculty (via the task)
ERP Workflow
AA/SA/HR/PR/etc.
Can view assignments details, accepted/decline/no response, etc..
ERP
HR
Receives tasks to activate/update PT Faculty
ERP Workflow
Payroll
Receives notification of changes that will be in payroll based on assignment changes
ERP
Payroll
Payroll Process
PeopleSoft
End

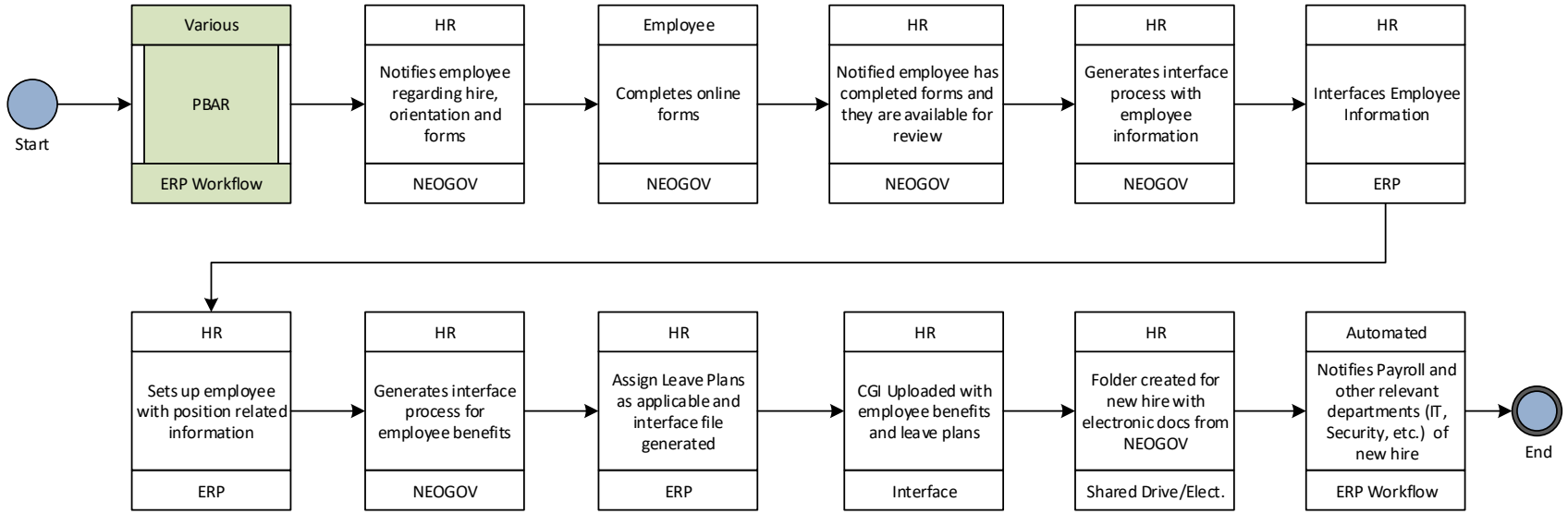
Personnel and Budget Augmentation Request (PBAR)—Current April 2019



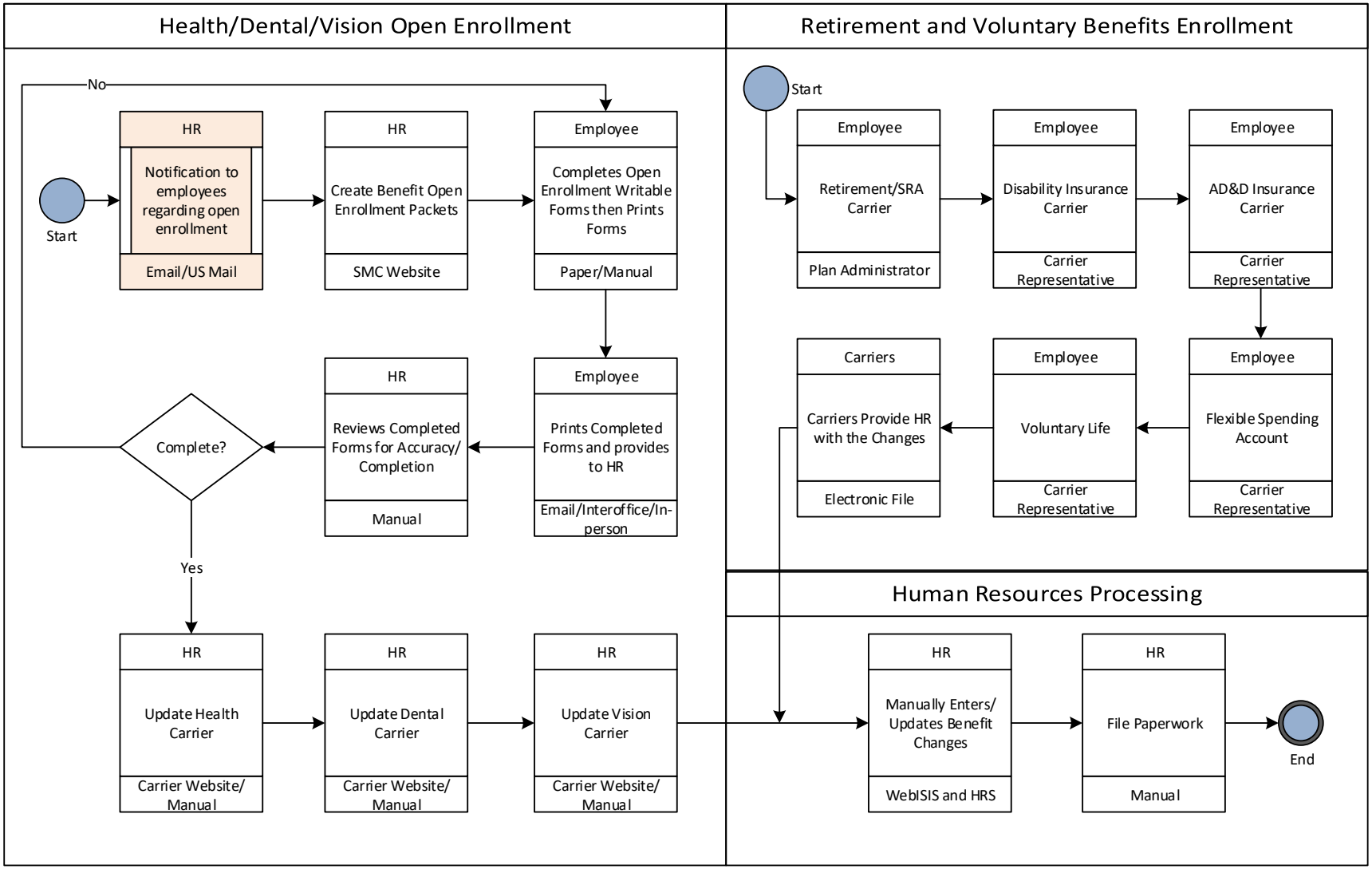

Start
Department
Completes PBAR Approval for New Position with Justification
ERP Workflow
Automated
Budget Receives PBAR Information
ERP Workflow
Automated
PBAR Reviews Request
ERP Workflow
Approved?
Yes
Budget
Notes approval in workflow. Notifications generated to and HR
ERP Workflow
Automated
HR Receives Approval
ERP Workflow
No
No
HR
Prepares Board Documents
Paper/Manual
Approved?
Yes
HR
Notes Board Approval
ERP Workflow
Department
Notified of Board Approval and Confirms BPAR information in Workflow
ERP Workflow
VP
Confirms Information
ERP Workflow
Accounting
Notified and enters account string
ERP Workflow
HR1
Enters Position Information
ERP
Personnel Commission
Hire/Select
NEOGOV
Department
Completes workflow with new hire information and routes to signing authority
NEOGOV Workflow
Approved?
Yes
HR
Receives notification of new hire
NEOGOV Workflow
HR
New Hire Onboarding
NEOGOV
End
No

New Hire Onboarding—Current April 2019

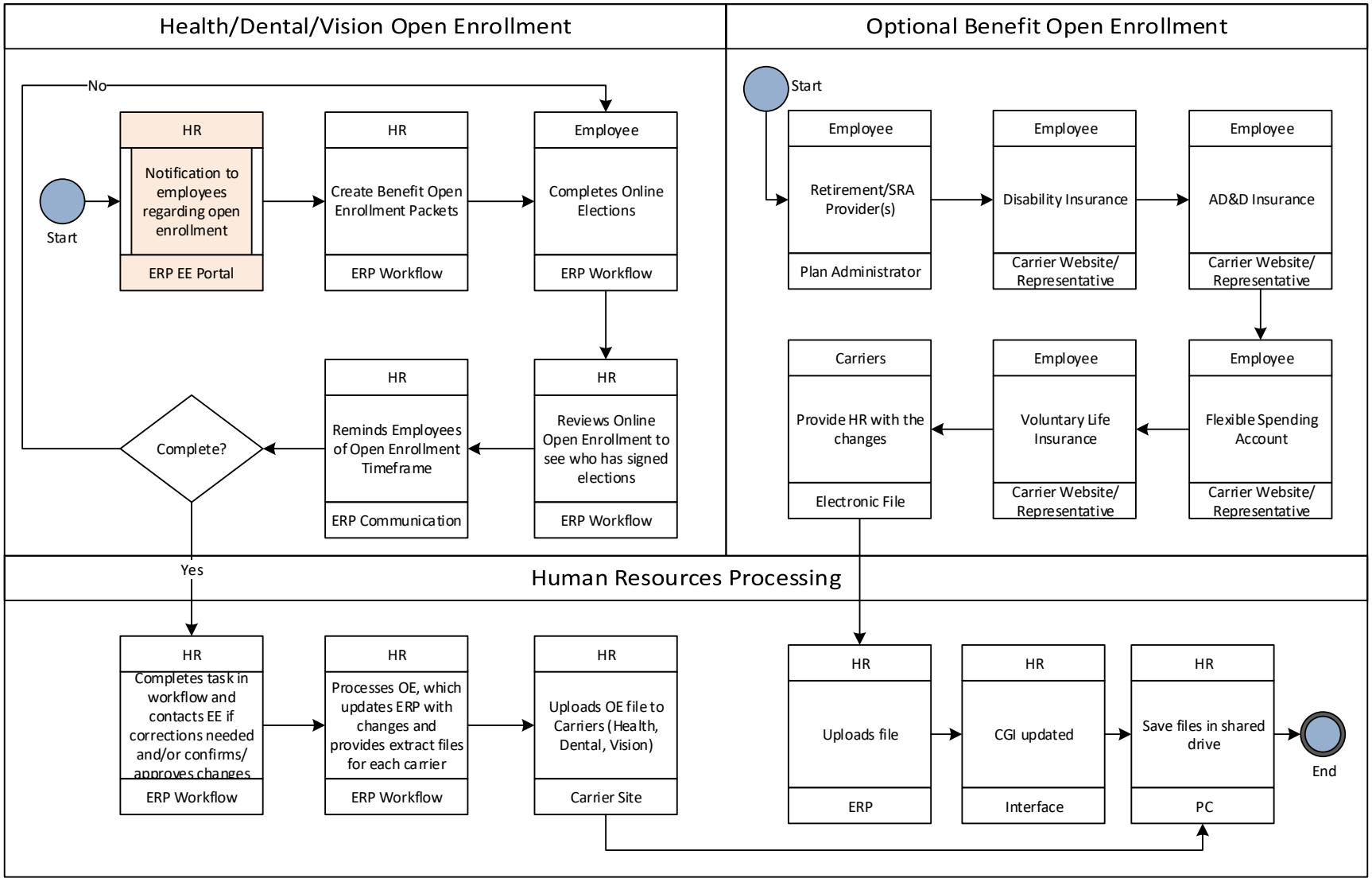



Start
Various
PBAR
ERP Workflow
HR
Notifies employee regarding hire, orientation and forms
NEOGOV
Employee
Completes online forms
NEOGOV
HR
Notified employee has completed forms and they are available for review
NEOGOV
HR
Generates interface process with employee information
NEOGOV
HR
Interfaces Employee Information
ERP
HR
Sets up employee with position related information
ERP
HR
Generates interface process for employee benefits
NEOGOV
HR
Assign Leave Plans as applicable and interface file generated
ERP
HR
CGI Uploaded with employee benefits and leave plans
Interface
HR
Folder created for new hire with electronic docs from NEOGOV
Shared Drive/Elect.
Automated
Notifies Payroll and other relevant departments (IT, Security, etc.) of new hire
ERP Workflow
End

Benefits Open Enrollment—Current April 2019



Benefits Open Enrollment—Recommended April 2019



APPENDIX G
Project Team Roles and Responsibilities

Role	Description	Suggested Title
Executive Sponsor	• Responsible as the executive point of contact representing the vendor management team • Maintains ongoing relationship to ensure the project is meeting standards expected and set by Santa Monica College	President/Superintendent, Executive Vice President
Engagement Lead	• Provides oversight and guidance for day-to-day activities of the project. • Responsible for overall engagement delivery, monitoring program progress, and making resource allocations. • Assists in mitigating risks and resolving issues that impact timeline, scope or resources. • Reviews deliverables to confirm quality and completeness.	Designated Functional Lead; ie. VP of Student Services; VP of Academic Affairs, VP of Enrollment Development, Director of Fiscal Services
Program/ Project Manager(s)	• Primary responsibility for day-to-day management of the project, including developing, managing and maintaining the project plan and milestones, assigning responsibilities, maintaining issues and decision logs, escalating issues and reporting. • Vendor project manager(s) will work closely with Santa Monica College's Program / Project Managers for overall guidance, for assistance to resolve major issues and policy conflicts, and for scope management, and sign-offs on major deliverables.	Designated Project Manager (external support)
Cloud Account Manager	• Primary responsibility for managing and helping design a multi-institution cloud environment for Santa Monica College. • Works closely with the Santa Monica College technical leads. • Overall responsibility for ensuring technical cloud knowledge transfer to the Santa Monica College team.	Chief Director, IT
Cloud Analysts	• The team of analysts to support the Santa Monica College cloud environment. • Responsible for assisting with the implementation of the cloud environment.	MIS Manager

Role	Description	Suggested Title
Cross-Functional Technical Lead and Reporting Lead	• Provides an understanding of the full end-to-end solution for development of cross-functional designs and solutions' deployment. • Responsible for overseeing the vendor technical team and provides overall technical expertise. • Responsible for all vendor project integrations. • Responsible for a strategy for the identification of institutional Business Intelligence, longitudinal reports as well as operational reports. • Overall responsibility for ensuring technical knowledge transfer to the Santa Monica College team.	Dean of Institutional Research, MIS Manager
Functional Leads (from each functional area)	• Responsible for work efforts related to the individual "modules," including design and configuration of the application to meet the Santa Monica College business and reporting requirements. • Supports testing, data conversion and integration development for the module. • Responsible for Knowledge Transfer to Santa Monica College team.	Director/Associate Director from key operation areas ie. Director of Financial Aid, Dean of Admissions and Records, Dean of Institutional Research, Manager of Fiscal Services
Senior SME Functional Analysts	• Works with the Santa Monica College functional leads and SMEs to identify and validate business and reporting requirements and use cases for the module/s • Validates design with stakeholders to ensure the design satisfies the business requirements • Completes all appropriate documentation required by functional leads, configuration teams, testers, and application management team that will maintain the modules. • Supports testing, data conversion and integration development for the modules. • Supports knowledge transfer to the Santa Monica College team.	Director/Associate Director, Assistant Director or Manager for functional areas

Role	Description	Suggested Title
Reporting and Data Analytics Lead	• Works with the Santa Monica College Reporting and Data Analytics Lead to identify reporting and data analytic needs for financial and institutional data, prepares use cases for various reporting models (dashboard, standard reports, ad hoc reports), validates report and data designs with key stakeholders, and completes all appropriate documentation. • Supports knowledge transfer to Santa Monica College team.	Dean of Admissions and Records, IR staff, MIS reporting staff, VP of Enrollment Development, Dean of Human Resources, Director of Fiscal Services
Integration and Reporting Specialists	• Works directly with Santa Monica College technical staff for design, programming, configuration, and testing of interfaces/ integrations in scope for the implementation. • Supports testing. • Responsible for Knowledge Transfer to Santa Monica College team.	Chief Director IT, Technical Project Manager, may need 3rd party vendor programming support
Data Migration Lead and SME's	• Works directly with Santa Monica College technical staff for data migration and validation. • Provides tools and templates for data conversion, mapping, and validation. • Provides mapping, programming, configuration, running and testing/co-testing services for the data conversion and migration.	MIS Manager, Functional area directors who will serve as SME's
Security Lead and SME's	• Provides expertise and direction on designing proposed solution security and access for the application, including roles and workflow considerations. • Supports testing. • Responsible for Knowledge Transfer to Santa Monica College team.	Information Systems Security Officer, Technical Project Manager, Chief Director, IT
Organizational Change Management Lead	• Works directly with Santa Monica College counterpart for the project and organizational change enablement to assess the impact of change on stakeholders, develop and maintain change plan.	3rd party support that will work with Program manager, Steering Committee members and executive sponsor
Communications Specialist	• Monitor the impact of change on stakeholders, maintain communication plan and project communications. • Distributes project communication to various stakeholders throughout the Santa Monica College community.	Marketing and Communications staff who will work with Program Manager, Change Management Lead

Role	Description	Suggested Title
Training and Knowledge Transfer Lead and SME's	• Responsible for knowledge transfer to Santa Monica College Functional Implementation Teams. • Responsible for instructional material development. • Responsible for co-instruction for end-user training.	Project Manager, Functional Leads
Testing Lead	• Responsible for end-to-end application testing. • Coordinates testing plans and testing logistics.	MIS Manager
Technical Support Analysts	• Front-line primary support for end users on various issues and problems relating to the ERP. • Responsible for responding to, documenting and resolving service tickets promptly according to SLA.	Technical Support Services Manager

APPENDIX H
Sample
Project Charter

PROJECT CHARTER AND PROGRAM MANAGEMENT PLAN

SAMPLE

DOCUMENT REVISION HISTORY

REVISION NUMBER	DATE	COMMENT
1.0	03/19/20xx	Original

PROJECT CHARTER

PROJECT MISSION & VISION

The College has a need for information technology which:

- Supports institutional strategies
- Maintains institutional identities
- Allows institutional time to be spent in strategic and brand specific areas
- Focuses on student success
- Holds fast to culture, differentiators and originality

Background

Information about the project and the college goes here.

Mission

To create and foster collaborative opportunities by serving as an agent for economic and educational initiatives that bring value to all.

Vision

To provide excellent resources and services to support all collaborative opportunities with innovative and highly functional systems, management tools, and dedicated and talented staff that will produce cost and quality improvements. Focusing on the well-planned delivery of support services will enable the college to achieve its vision of practical operating solutions resulting in controlling the cost to deliver higher education to students and enhancing our educational mission.

EXPECTED BENEFITS & OUTCOMES

The College will implement the software and leverage modern day cloud technology:

- Create operational efficiencies which will create better experiences for students, staff, faculty and donors
- Have cost savings
- Create an environment where we learn with and from each other
- Can explore shared/centralized services
- That create support redundancy and backups

With this project, X is leading the way in Higher Ed where Higher Ed's future requires innovative, better than best practices.

SCOPE AND COMPONENTS

The scope of this project includes a combination of internal initiatives that help to ensure the expected benefits and outcome are realized as well as several minor and major technology implementations and data migrations. There are also over XXX imports, integrations and interfaces that will be designed, built, tested and deployed to support the ability to continue business as normal at the college after each major implementation.

This is a multi-year project with several components that will continue to be optimized and/or executed beyond the projected timeline represented.

Under the umbrella of Project, there are XX major initiatives that must be accomplished in the suggested timeframe to reach expected benefits. Many of the initiatives also have sub-projects identified that must be completed to reach the goals of the initiative.

INSERT DIAGRAM

ASSUMPTIONS

Assumption	Resources will be available to complete tasks
Assumption	Critical configuration and policy decisions will be made in a timely manner
Assumption	Leadership at the College supports Project and it is viewed and treated as a strategic priority

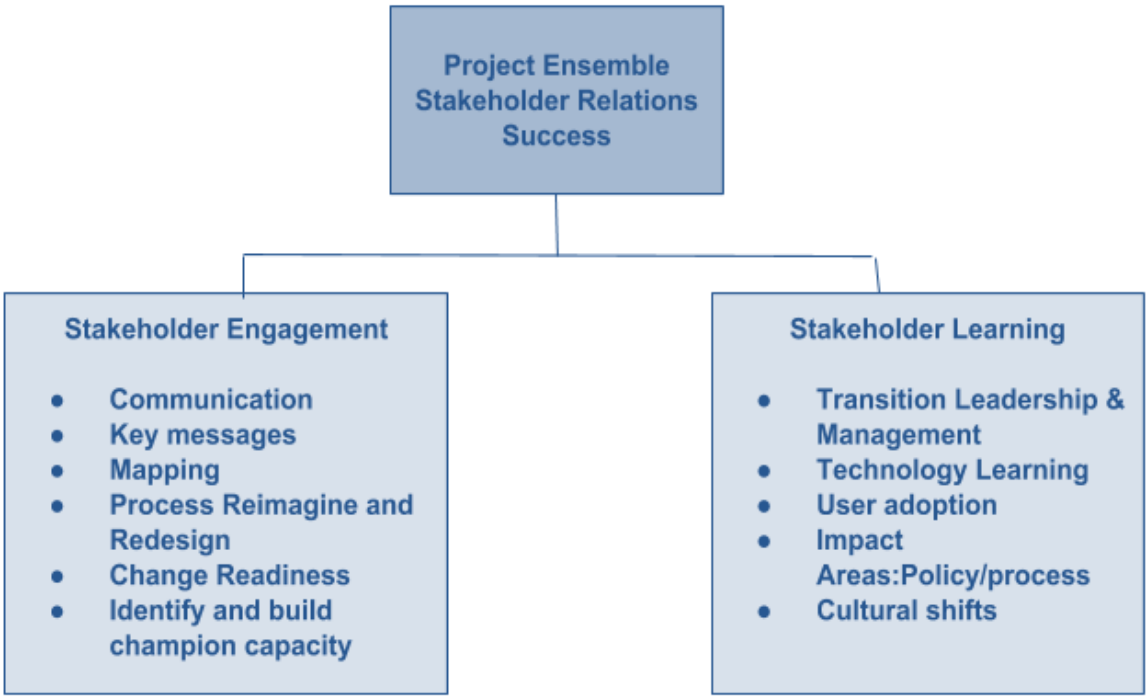
There are three

RISKS/CONSTRAINTS

Risk Description	Risk Mitigation
Demands from all other priorities	Keep focused; Backfill plan
Integrations- 150+ imports, integrations & interfaces needs to be defined, designed, developed, tested & deployed	Valid resource & contingency planning; Plan for all, Focus on Critical
Resistance to Change	Training, Communication & Transition Management

The above list represents the top three major Risks/Constraints that must be constantly monitored and mitigated. The Risk/Issues Log will be reviewed and updated regularly by the full project management team with a constant focus on mitigation strategies. This is further described in the Risk Management Plan section of this document.

STAKEHOLDER ENGAGEMENT



GOVERNANCE STRUCTURE

As visualized below, Project has a defined governance structure that enables collaboration between the college and facilitates decision making.

INSERT VISUAL

There are several roles that make up the governance structure of Project. These roles and their corresponding responsibilities are described in the following table:

PROJECT ROLES AND RESPONSIBILITIES	
Roles	**Responsibilities**
Project Leads HR, Fin, Adv Full-time during implementation – per agreement of working group	• Guided by Steering Committee's principles • Create with CampusWorks, PM and implementation partners staffing plan for their area of focus • Closely work with Subject Matter Experts (SMEs), bring SMEs together from three schools and ensure coordination among SMEs within a business process and across business processes • Help SMEs with business process design, data conversion and integration to third party software, working in collaboration with the IT team for the project • Ex Officio member of functional area Working Group

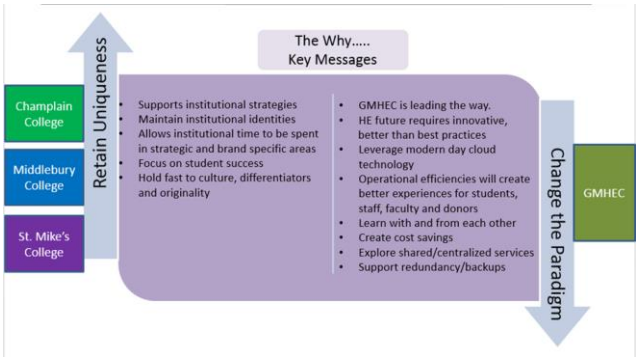
	• Meet regularly with fellow leads (beginning: monthly, during implementation start: weekly) • Program manager chairs meetings • Leads are selected at beginning of project, time input will vary, e.g., student leads will meet monthly with other leads during Advancement/HR/Finance implementation but not have many other duties, during student implementation will be full-time • When new business processes are completed, hosts a cross-functional briefing on their area's processes to educate other functional area teams on critical needs and touch points to other business areas, to further foster learning and set the stage for implementation collaboration • Integrate data governance into project planning and decision making and create documentation • Ensure agenda for each meeting is published 2 business days ahead with supporting material and minutes are published within 2 business days after each meeting at designated shared site • Send bi-weekly project updates to Working Group, PM; once project starts, weekly updates • Each lead plans, organizes, and gives training for their area with the goal to ensure full adoptions of new systems and new business rules – all leads coordinate training and elect training chair • Work with PM on testing plan, coordinates with fellow leads, ensures complete testing including user acceptance testing is done before go live date • First stop to resolve lack of agreement between Subject Matter Experts in regards to business processes, data conversations, integrations, etc. • If a change order is necessary, Lead creates change order with business reason for change order to present to Working Group • Identify, assess and manage risk, report risk to Working Group, PM, owner • Works during project time at project location and visits each college to create better connection with each college and their cultures • Hold meetings with SMEs from all college periodically at the various college to create more connectivity across the college. Meetings with implementation partners are at project's location • Lead business process changes for college; proactively anticipate culture, policy, processes and ensure adoption and change acceptance • Ensure stakeholders and end users are appropriately informed, participate in relevant process design decisions and are ready for live and post live changes
Project Leads Student	Before Student implementation:

	• 4h/month before Student implementation • Meets monthly with other project leads (other student project leads as well as HR/Fin/Adv/IT) to understand what is going on with project and to determine whether there are connections to their specific area, e.g., allowing for pronouns/preferred name vs legal name, A/R for student accounts, etc. • Works with point persons from their area at the other schools to keep them informed • One project lead per area: • 1) Recruiting/Admissions • 2) Registrar/Advising/Faculty • 3) Financial Aid/Student accounts • 4) Student Life During Student implementations (implementation will be determined in fall of 2019): • Full-time for following areas (see project lead description above for HR/Fin/Adv for further info): • 1) Recruiting/Admissions • 2) Registrar/Advising/Faculty • 3) Financial Aid/Student accounts • 2h/week during student implementation for following area: • 4) Student Life • Will meet weekly with other project leads and work closely with them to ensure proper integration of student life software • Will work with student life point persons from other two schools to keep them informed • Lead business process changes for college; proactively anticipate culture, policy, processes and ensure adoption and change acceptance • Ensure stakeholders and end users are appropriately informed, participate in relevant process design decisions and are ready for live and post live changes

COMMUNICATION PLAN

The visual below describes both key messages as well as the groups of stakeholders and their roles in communication for both the College and Project.

Stakeholder Engagement & Communication Overview



The following list represents one-time and recurring communication strategies for Project.

Plans					
Communication Tool/Event	**Objective/ Audience**	**Audience**	**Timing/ Interval**	**Owner**	**Target Date(s)**
Catch up meetings	Update stakeholders on activity since Pres communication after Board meetings	Leadership; Local Leads and SME's	One time	Shared	TBD
Functional catch up meetings	Update stakeholders on activity since Pres communication after Board meetings	HR/Fin/ADV/IT departments	One time	Shared	FIN HR ADV IT
Presidential updates	Affirm top level support and engagement, info sharing with	Community/General User	1. Quarterly - written communication - Project Communication	Core Messages from and Institutional adjustment	12TBD

Plans					
Communication Tool/Event	**Objective/ Audience**	**Audience**	**Timing/ Interval**	**Owner**	**Target Date(s)**
	entire community		2. Other venues (ex Town Hall meetings) incorporated into other communication.	based on local level needs	
Kick off meeting	Celebrate launch of project, increase level of awareness and engagement	All in Tech Governance Structure including Local Leads and SME's; Vendor and CampusWorks	One time	Stakeholder Engagement Group	TBD
"Mini" Kickoffs	Functional area launches; key information, who/how involved, timeline, what people can expect	Working Group; Project Leads, Local Leads and SME's in functional areas	3 - 6 weeks prior to functional implementation	Project Lead	TBD
User "launch"	Functional area - how this will impact the community; informational sessions	Community/General User	Further into project when something is available to show	Project Lead	TBD
Manager Communication/info sessions	Project Update, Transition impacts	Leadership/Project Lead	Every 1 - 2 months	TBD	TBD
Newsletter	Regular update on "factual" progress of project;	Community/General User	Bi-weekly	Mary M. Lee	TBD

Plans					
Communication Tool/Event	**Objective/ Audience**	**Audience**	**Timing/ Interval**	**Owner**	**Target Date(s)**
	celebrate and highlight successes; keep people informed		Send out to All in the Governance Structure. Then, send out thru the campus newsletter (or other vehicle)		
Governance Structure Call	Regular update on "factual" progress of project; deeper information and opp to respond to questions. 30 minute call. Will select speakers based on current project; Learning Opportunity	All in Tech Governance Structure including Local Leads and SME's	Bi-weekly to start		TBD
Project Lead Communication	Project Communication by functional area	Functional Area Local Leads and SME's; Working Group; All Project Leads (across structure); NOTE - double check to make sure that all Functional Area VP's are included	Bi-weekly (may be more or less depending upon start date of implementation)	Project Leads	TBD

Plans					
Communication Tool/Event	**Objective/ Audience**	**Audience**	**Timing/ Interval**	**Owner**	**Target Date(s)**
Project Leads Monthly Meeting	Cross functional engagement on key issues; impacts; learning opportunities	Project Leads;	Monthly; more as needed		TBD
College Website	Information portal for Users; Note will need to distinguish this site from SharePoint which will be used during actual progress	Community/ General User	Weekly for communication update		TBD
Project Video	Information, Excitement	Community/General User	On Website; ongoing meetings		TBD
Tech Steering Committee Meeting	Project Updates; issues; successes	Tech Steering Committee	Every 4 weeks	Project Owner (ED) and PM	TBD
Bi-weekly Governance/Leadership Update	Regular update on "factual" progress of project; celebrate and highlight successes; keep people informed	President's, SLG, Cabinet, Steering Committee, Working Group and Project Leads, local leads	Every 2 weeks	Project Owner (ED) and PM	TBD
Functional Working Group Update	Regular update on "factual" progress of project; celebrate and highlight	Functional area communication to reach all levels (SMEs)	Every 2 weeks	Working group chair/project lead	TBD

Plans					
Communication Tool/Event	**Objective/ Audience**	**Audience**	**Timing/ Interval**	**Owner**	**Target Date(s)**
	successes; keep people informed				
Board Updates	Regular update on "factual" progress of project; Financial update	Board	Scheduled meeting 2x per year (may want to do more frequently)	Project Owner	TBD
College BOT	Regular update on "factual" progress of project; Financial update	Local College BOT	Scheduled meetings 3 - 4x per year; May happen thru Finance Committee	CFO/VP Finance	TBD
Monthly Updates	All institutions; open audience for project updates; high level; Q&A opportunities	All college campuses	Monthly		TBD
Fun	Create engagement, relationships, communication	Governance Structure thru SME's	TBD		TBD; needs budget consideration

INITIAL HIGH-LEVEL ROADMAP

INSERT DIAGRAM

TIME SCALE

The timeframe for the core initiatives and their sub-projects of Project, as visualized in the Scope and Components section, is [date] through [date]. There are several continuous improvement efforts in several of these Initiatives that will extend beyond this timeframe including:

- Initiative # 1
- Initiative # 2
- Initiative # 3

For Initiative XX, an initial review of the new student systems as they are built will take place in this timeframe. The process re imagine and redesign (PRR) project, final evaluation of system, decisions and implementation of a student system will be included in Phase II of Project.

INITIATIVE & SUB-PROJECT CHARTERS

INITIATIVE 1: STAKEHOLDER RELATIONS SUCCESS

INITIATIVE 1A: STAKEHOLDER ENGAGEMENT

PURPOSE:	Design and execute activities and communications that keep stakeholders engaged throughout Project.
GOALS:	Be helpful in the transition to new systems and new processes from Project. Common activities include communication, key messages, mapping, process reimagine and redesign, change readiness, identify and build champion capacity.
TEAM(S):	Stakeholder Relations WG, Advancement, Finance and HR Project & Local Leads, Lead SME's
DELIVERABLES:	Phase 1 Define and Design 1. The What and Why Message 2. Mapping and Analysis 3. Story Telling 4. Identifying Champions Phase 2 Develop 1. Ongoing stakeholder analysis & monitoring 2. Key messages 3. Broader audience awareness/understanding 4. Converting the champions Phase 3 Deploy 1. Ongoing stakeholder analysis & monitoring 2. Broader audience understanding 3. Converting champions

	Phase 4 Transition 1. Ongoing stakeholder analysis & monitoring 2. Converting champions 3. Broad community adoption.
DUE DATES	TBD
HOW WILL DELIVERABLE BE USED:	To
STAKEHOLDER ENGAGEMENT -HIGH LEVEL TIMELINE and Resource Requirements	
Strategy planning	TBD
Advancement Phase I	TBD
Advancement Phase II	TBD
Advancement Phase III	TBD
Advancement Phase IV	TBD
Finance Phase I	TBD
Finance Phase II	TBD
Finance Phase III	TBD
Finance Phase IV	TBD
HR Phase I	TBD
HR Phase II	TBD
HR Phase III	TBD
HR Phase IV	TBD

INITIATIVE 1B: STAKEHOLDER LEARNING

PURPOSE:	Create and Execute workshops for stakeholders to learn and prepare for the transition. Key topics covered in these workshops include transition leadership & management, technology learning, User Adoption, Impact Areas and cultural shifts.
GOALS:	Help Key Leaders learn how to help stakeholders prepare for and accept transition.
TEAM(S):	
DELIVERABLES:	Workshop 1 Stakeholder Engagement Process Workshop 2 Preparing for transitions Workshop 3 Managing Transitions I

	Workshop 4 Managing Transitions II Workshop 5 Managing Transitions III
DUE DATES	TBD
HOW WILL DELIVERABLES BE USED:	
HIGH LEVEL TIMELINE and Resource Requirements	
Plan Strategy & Timeline	Insert Dates over timeline
Develop Workshops	
Execute Workshops	

INITIATIVE 2: DATA GOVERNANCE

INITIATIVE 2A: DATA GOVERNANCE

TEAM:	Data Governance Team
PURPOSE:	Data governance is the core of effective data management. It is defined as the exercise of authority and control over the management of data assets. Shared decision making is a tenet of effective data governance programs. Data governance is most effective as an ongoing program focused on continuous improvement. It is important to recognize that Data Governance is an institutional and Consortium need and not simply an IT activity. Although there are aspects of Data Governance that can be technical in nature the primary function of DG is the convergence of data quality, data management, data policies, business process management and risk management surrounding the handling of data in an organization.
TEAM SPONSORS:	
TEAM MEMBERS:	

Member	Team/Area Represented

<table>
<tr><td>TEAM RESOURCES:</td><td>
<table>
<tr><th>Member</th><th>Team/Area Represented</th></tr>
<tr><td></td><td></td></tr>
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</td></tr>
<tr><td>GUIDING PRINCIPLES:

• Simple and clear process and structure
• Efficient timely and responsive
• Realistic and doable</td><td>The following guiding principles have been identified for the Consortium’s data governance initiative:
• To manage and utilize information as a strategic asset for the consortium and its members.
• To implement processes, policies, infrastructure and solutions to govern, protect, maintain and improve the use of information.
• Through integrated business processes and leading-edge IT systems, make relevant and accurate information available to the right people, in the right context, at the right time, with the right quality, using appropriate security.
• To promote a wider and deeper understanding of the value of data assets of the consortium and its members.
• Wherever possible maximize our efficiency and effectiveness by adopting standardized data definitions and practices.
• Increase trustworthiness in data use, operationally and in reporting.
• Improvement in findability of key data assets.
• The Data Governance Initiative from development, to implementation, to maintenance needs to be effectively communicated and transparent.</td></tr>
<tr><td>GOALS:</td><td>• To maximize the use and value of data and information assets at the Consortium and member institutions.
• To capture, store, protect and ensure the integrity of the Consortium and member institutions’ data assets.
• To continually improve the quality of data and information, including its accuracy, integrity, integration, relevance and usefulness.
• To ensure privacy and confidentiality and to prevent unauthorized or inappropriate use of data and information.
• To reduce the cost of data and information management.</td></tr>
<tr><td>TEAM RESPONSIBILITIES:

• Measure requests for data and/or access to data against the mission of the college and the</td><td>Executive Sponsors:
• Ensure that DG is adopted and carried out throughout the consortium and member institutions.
• Establishes and charges the DG Team.</td></tr>
</table>

missions of the requestor's area and the area in which the data reside	• Ensures the appropriate resources are available to support DG efforts. • Provides direction for and approval of DG policies. • Arbitrate differences between Data Stewards. **Data Governance Team:** • Develop data governance charter including scope, goals, and objectives • Develop data governance roles and responsibilities. • Ensure that the entire data lifecycle for key data elements is understood in terms of impact to the consortium and its institutions. • Manage, monitor, and document data issues and their resolution. • Ensure that DG retention policies exist and are being followed. • Define & document metadata • Oversee Data Cleanup and monitor data quality audits. • Establishes and ensures maintenance of the Data Dictionary/Glossary. • Establish and Maintain Rules and Levels of Access and Security • Oversee and Monitor Procedures relating to data governance • Oversee and Monitor Business Processes relating to data governance • Ensures appropriate training policies and process of data standards and governance. **Data Stewards** • Communicate to all constituencies and provide training standards and enforcement**.** • Oversee data entry and maintenance processes to ensure accuracy and quality • Conduct regular audits of the data, especially for the cleanliness ie: duplicates. • Maintain a Data Dictionary/Glossary and other tools identified to effectively manage the data • Establish and ensure data standards to include data entry by staff, self-service data entry by constituents, automated entry, etc. • Ensure accuracy of in the reporting of data • Authorize access to area's data and ensures • appropriate levels of confidentiality are maintained • Establish and maintain business processes and procedures • Determine data classification for Data Classification policy • Assess the potential risk or negative consequences of releasing or granting access to the data **Technical Stewards** • Ensure accessibility and availability of data

	• Responsible for data storage and security • Monitor health and capacity of database and data structures • Maintain information systems and reporting tools • Maintain integration to disparate systems and report integration issues to Data Stewards • Administer access as granted by Data Stewards **Data Custodians** • Responsible for data entry into the system(s) • Perform data entry and maintenance • Ensure accuracy and timeliness of data entered • Raise concerns about data to Data Stewards • Understand and comply with data policies, processes, procedures, and standards • Understand how the data they enter or process is used
DELIVERABLES:	1. Develop roles for data governance. 2. Develop a consortium level strategy and scope for data governance. 3. Develop a data classification policy that provides guidance on how to classify data, what each classification means, and what the liability to the consortium or member institutions is if the data is released unintentionally to the public. 4. Develop an access control policy that provides for access restrictions, account management, authorization, password requirements, system privileges, session controls, records/logging, and access review. 5. Develop a change management policy to place restrictions on the number and complexity of systems' changes to reduce negative impact of modifications, upgrades, or other changes. 6. Select a tool for both a data dictionary and data glossary. 7. Develop baselines for the data points to measure the success of the data quality program efforts. 8. Develop exception reports to help define the baselines and identify data quality issues. 9. Develop preventative controls to ensure data quality. 10. Provide training on quality management methodologies. 11. Define system of record for all areas of the consortium 12. Develop a robust communication plan to all constituents that includes frequent and targeted communications regarding data governance.
SUCCESS MEASURES	Assessment of the team responsibilities, as noted above, are reviewed on an annual basis and issues are addressed in a reasonable, timely manner.

BOUNDARIES:	1. This team will not be responsible for data clean up identified through this process. 2. This team is responsible for consortium level Data Governance and not institutional level Data Governance. 3. The creation of specific functional area data retention policies are out of scope.
OPERATING GUIDELINES:	1. The Data Governance Team will meet on a regularly scheduled basis that will begin with bi-weekly at the start, and at minimum monthly. 2. The Data Governance Team will work transparently to approve policies and procedures within our authority; when a consensus approval cannot be reached, the issue will be referred to the Executive Sponsor Team for decisions. 3. This DG Charter is a living document.

INITIATIVE # 2B: DATA STANDARDS

TEAM:	Data Standards Team
PURPOSE:	Define data standards for the systems impacted by the systems upgraded in Project and for data shared across functional areas; document data standards in manual and reference guide (or by reference, data in Validation Tables within the impacted systems).
TEAM SPONSORS:	
TEAM MEMBERS:	**Member** | **Team/Area Represented**
TEAM RESOURCES:	**Member** | **Team/Area Represented**

GUIDING PRINCIPLES:	In completing the system upgrades represented in Project, the College will be adopting a Data Stewardship philosophy that recognizes data as a College asset, which, like other resources, must be managed with overall utility and cost/benefit in mind. Based on the premise that the greatest benefit of data is gained through its shared and thoughtful use but diminished through loss, misuse, misinterpretation and unnecessary restrictions to its access, these guidelines establish minimum standards for the management and protection of institutional data. Data Stewardship is designed to achieve an appropriate mix of three core values – confidentiality, integrity, and availability. ***DATA STEWARDS*** are College officials who have responsibility for data within their functional areas. Data Stewards have responsibility for classifying data in their areas and applying the applicable controls for defined data classifications. The definitions for these classifications are provided below: **Sensitive Information:** Sensitive Information requires a high level of security and privacy protection. In some cases, protection may be mandated by federal or state regulations (e.g. FERPA, HIPAA, GLBA) or required by contractual agreement (PCI-DSS). Confidentiality and integrity of this information must be rigorously protected. **Restricted Information:** Some Sensitive Information is also considered Restricted Information. Restricted Information requires the highest level of security and privacy protection. Like Sensitive Information, protection of Restricted Information is mandated by federal or state regulations or required by contractual agreement. Unlike Sensitive Information, Employees must obtain relevant Senior Leadership approval before being authorized to store, process, or transmit Restricted Information. **Senior Leadership Approval: Senior Leaders or their designees must authorize all storing, processing, and transmitting of Restricted Information.**

	Internal Information: Internal information is intended for use by the College only. Confidentiality of this information is preferred, but information generally can be made available to the public by open records request. The information is very valuable to the institution, so integrity of the information should be rigorously protected. **Public Information:** Public information is intended for public consumption or has no need for confidentiality. Still, the information is valuable to the university and the information needs to be accurate, so steps should be taken to assure the integrity of the information.
GOALS:	• Form a team that includes representation from across the various College, schools, administrative offices, and IT staff who are participating in the implementation • Enable these participants to utilize their knowledge and experience, and empower them to make decisions about how data will be entered and maintained in the new system • Utilize the documented resources available to assist in identifying what should to be included in our standards manual / reference guide and, by reference, validation tables. • Develop a Data Standards Manual / Reference guide
TEAM RESPONSIBILITIES:	• Identify data shared across functional areas • Review and approve configuration / coding being created within the validation tables in the existing and new systems implemented in Project. • Identify and document existing and evolving written and unwritten data standards which will be used going forward • Identify existing business processes for data change procedures and adapt as necessary to comply with the Change Management policy • Research current data and information security policies; notify the IT Working group of Project data and security policies needed to support data standardization, integrity, and security

	• Get ideas by looking at examples of data standards manuals developed by other schools • Create outline of proposed Data Standards manual • Construct prioritization of data standards decisions based on implementation timeline, e.g. necessary items first • Identify a priority for the approval of proposed standards so as to not delay progress in building out the new systems. • Populate the evolving Data Standards manual from the outline based on prioritization scheme. Include general data entry rules and sample data entry procedures • Update, edit, revisit Data Standards manual throughout implementation; communicate and make changes as necessary. • Encourage areas that do not have shared data elements to prepare a data standards manual for their area-specific data. • Create a repository for shared and non-shared data standards manuals • Set a timeline with milestones for approvals and a goal for the completion of the Team's primary work that reflects the project's overall timeline and go-lives. • Assist where necessary in the mapping or migration of data from legacy systems into Project systems. • Ensure communication and proliferation of new standards and conventions to the campus community and end users.
SUCCESS MEASURES	1. Team responsibilities are met on time and in accordance with the guiding principles.
BOUNDARIES:	1. This team will not focus on writing College policies on information security, sharing and usage – a draft policy already exists. 2. This team will not focus on identifying data stewardship or Data Governance Model.
OPERATING GUIDELINES:	1. The Data Standards Team will meet on a regularly scheduled basis that will begin with weekly at the start, and at minimum monthly until the project has closed out. 2. The Data Standards Team will work transparently to approve configurations within our authority; when a

	consensus approval cannot be reached, the issue will be referred to the DG Team for decisions.
MEETING GROUND RULES:	1. Team members will be prepared for all meetings. 2. Proposed agendas for Data Standards meetings will be sent out at least 48 hours in advance. 3. Meeting follow-up will be circulated within 48 hours of each meeting. 4. Decisions will be tracked and logged. 5. Team members will follow-up on all action steps that they commit to during a meeting

INITIATIVE 3: ADVANCEMENT IMPLEMENTATIONS

INITIATIVE 3A- SOFTWARE IMPLEMENTATION

PURPOSE:	Implement chosen advancement software
GOALS:	The overall goal in implementing products and utilizing X services is to design and implement an effective solution to support specific business needs to maximize organizational goals and achieve user adoption. Vendor will work collaboratively with the College to implement X.
TEAM(S):	Advancement Project Leads and Local Leads, Subject Matter Experts, End Users and vendor.
DELIVERABLES	Key Deliverables described in Section 3.5.3.1 of Project Management Plan
DUE DATES	Go Live
LINK TO PROJECT MANAGEMENT PLAN	
OTHER INITIATIVE DEPENDENCIES	Initiative # 1: Initiative # 2: Initiative # 3:
HIGH LEVEL TIMELINE	
Initiate	TBD

Plan	TBD
Design & Build	TBD
Test	TBD
Deliver & Stabilize	TBD
Close	TBD

INITIATIVE 3B- Y SOFTWARE IMPLEMENTATION

PURPOSE:	The purpose of this project is to successfully implement Y, a content management system that integrates with X, Client's system of record for constituent data, to facilitate online marketing, communication, fundraising, and transaction management.
GOALS:	Vendor will work with the College to implement a responsive design within Client's existing Y installation. Client will provide design files (layered Photoshop document or HTML/CSS/JS) or the URL of a site with the design to be replicated. As part of this project, vendor will also implement one (1) responsive email template within Y. This template is based on a design created by vendor. It will be customized to the Client's brand standards; however, the underlying structure of the template will not be altered as part of this project.
TEAM(S):	Defined in Statement of Work Section
DELIVERABLES	Software deployed site for college
DUE DATES	Go Live Date
STATEMENT OF WORK	
HIGH LEVEL TIMELINE	
Design	TBD
Build & Test	TBD
Deliver & Support	TBD

INITIATIVE 3C – ADDITIONAL SOFTWARE DEPLOYMENT

There is a one-month deployment project that is in the early stages of planning. This will most likely be deployed in 20xx.

PURPOSE:	Deploy X at the College.
GOALS:	•Engage supporters and their networks to raise more • Build awareness and acquire new donors • Deploy branded fundraising campaigns quickly
TEAM(S):	
DUE DATES	TBD
STATEMENT OF WORK	See Project Management Plan attached to Initiative 3A
HIGH LEVEL TIMELINE	
Train & Configure	TBD
Test & Deploy	

INITIATIVE 3D –SOFTWARE IMPLEMENTATION.

PURPOSE:	
GOALS:	This tool will be used to connect with constituents through social media.
TEAM(S):	Advancement Leads, Vendor
DUE DATES	College is to be trained on use of tools by [date]
DELIVERABLES	College Social Media Accounts are connected & listening
LINK TO PROJECT	See project management plan attached to Initiative 3A
HIGH LEVEL TIMELINE	
Configure & Test	TBD
Train	TBD
Deploy	Dates

INITIATIVE 4: FINANCE IMPLEMENTATION

INITIATIVE 4A FINANCE IMPLEMENTATION

PURPOSE:	Finance, Procurement and Reporting Deployment – 6 Months + 1 Month Post Production Support.
GOALS:	Consultant will implement the following applications to support Financial and Procurement processes defined in Section 1.2.1: General Ledger, Fixed Assets, Accounts Receivable, Accounts Payable, Cash Management, Expenses, WebCenter Forms, Automated Invoice Processing, Self-Service Purchasing, Procurement, Sourcing, Procurement Contracts and Planning and Budgeting Cloud Services.
TEAM(S):	Teams represented in Implementor Statement of Work Section
DELIVERABLES:	Deliverables are represented in Implementor Statement of Work Section 3
DUE DATES	TBD
STATEMENT OF WORK AND/OR PROJECT MANAGEMENT PLAN	Note: Project does not kickoff till April 3 Statement of Work
OTHER INITIATIVE DEPENDENCIES	Initiative # 1: Initiative # 2: Initiative # 3:
HIGH LEVEL TIMELINE	
Define	TBD
Interactive Design & Development	TBD
Deploy	TBD
Transition	TBD

INITIATIVE 5: TRAINING–FUNCTIONAL (POWER & END USER) AND IT

INITIATIVE 5A: ADVANCEMENT POWER & END USER TRAINING.

PURPOSE:	Define & Execute training plan for X, Y, Z
GOALS:	Define overall training plan for X power users and end users. Execute Plan utilizing a combination of online courses and on-site training
TEAM(S):	Advancement project lead, local leads and training services
DELIVERABLES:	Plan and execute Power User Training Plan and execute End User Training
DUE DATES	TBD
HOW WILL DELIVERABLES BE USED:	Execute the training plan for Advancement
HIGH LEVEL TIMELINE	
Plan & Prepare	TBD
Execute Power User Training	TBD
Execute End User Training	TBD

INITIATIVE 5B: FINANCE CORE & END USER TRAINING.

PURPOSE:	Define training needs for Finance Core and End Users of Finance
GOALS:	Define overall training plan for Finance users Evaluate & Recommend vendors for delivery of training Create and Execute Plan for training
TEAM(S):	Finance project lead, local leads and working group All Finance subject matter experts & end users
DELIVERABLES:	Overall training plan recommendations Decide on Vendor Create training plan and schedule and execute it.

DUE DATES	TBD
HOW WILL DELIVERABLES BE USED:	Further define training plan, timeline
HIGH LEVEL TIMELINE	
Define Training Needs	TBD
Finalize Costs & Procure	TBD
Execute Plan	TBD

INITIATIVE 5C: HCM CORE & END USER TRAINING

PURPOSE:	Define training needs for HCM Core and End Users
GOALS:	Define overall training plan for HCM users Evaluate & Recommend vendors for delivery of training Create and Execute Plan for training
TEAM(S):	HCM project leads and working group
DELIVERABLES:	Overall training plan recommendations Decide on Vendor Create training plan and schedule and execute it.
DUE DATES	TBD
HOW WILL DELIVERABLES BE USED:	Build and execute a training plan for HCM
HIGH LEVEL TIMELINE	
Define training needs	TBD
Evaluate vendors	TBD
Decide & procure	TBD
Execute training plan	TBD

INITIATIVE 5D: TECHNICAL TEAM TRAINING

PURPOSE:	Determine training needs for the Technical support team
GOALS:	Define training needs for technical team to support new systems in Project. Evaluate and recommend methods for this training. Develop Plan, Budget, and Schedule
TEAM(S):	IT Working Group
DELIVERABLES:	Define Technical Skills Requirements & Gaps Determine Available Learning Sources Add to Technical Plan and Timeline
DUE DATES	TBD
HOW WILL DELIVERABLES BE USED:	To procure and plan training needs
HIGH LEVEL TIMELINE	
Identify Needs	TBD
Evaluate Methods of Delivery	TBD
Recommend & Procure	TBD
Implement	TBD

INITIATIVE 6: DATA MIGRATIONS

INITIATIVE 6A: ADVANCEMENT DATA MIGRATION.

PURPOSE:	Data Migration from Legacy systems
GOALS:	Migrate and transform data from legacy systems to a fully configured environment
TEAM(S):	Functional Leads, College IT, Vendor data consultant
DELIVERABLES:	Design, Build, Test and Implement data migration

HIGH LEVEL TIMELINE	
Define	TBD
Interactive Design & Development	TBD
Deploy	TBD
Transit	TBD

INITIATIVE 6B: FINANCE DATA MIGRATION.

PURPOSE:	Migrate data from legacy systems
GOALS:	Design, Test, Deploy structures from Legacy FINANCE systems
TEAM(S):	Functional Lead, IT Lead, Implementor team
DELIVERABLES:	
HIGH LEVEL TIMELINE	
Define	TBD
Interactive Design & Development	TBD
Deploy	TBD
Transit	TBD

PROGRAM MANAGEMENT PLAN

RISK MANAGEMENT PLAN

It has been proven that the cost of making changes increases through the course of a project. Therefore, it is important to identify potential risks early and monitor critical risks throughout the project. Additionally, the ability of the project executive staff and sponsors to significantly influence the outcome of any risk declines as the project progresses through its life cycle. Risk management is an essential component in the project management plan and reduces negative results of unmanaged risks.

A risk is defined as an event or condition that may cause a negative effect on the project. Risk factors that should be considered include, but are not limited to:

- Contractual risks
- Technological risks
- Risks caused by project size and complexity
- Risks in personnel acquisition and retention
- Risks in personnel skill sets and learning curves
- Risks in achieving customer acceptance of the product

Risks are measured in terms of their effect on cost/schedule/quality (impact) and the likelihood of the condition or event occurring (probability). Ongoing identification of risks increases leverage for a project manager by maximizing the time available to assess strategies for effective mitigation. Quantifying risks ensures that attention and resources are drawn to those risks presenting the greatest and most likely threats to project success.

The Risk Management Plan provides a structured process for identifying, analyzing, planning strategies, managing and tracking risks that may affect the project. Templates and samples associated with the plan are included in Appendix B.

RISK MANAGEMENT PROCESS

The process of managing risks has multiple steps that are conducted throughout the project. The steps are outlined below and further described in the following sections.

- Identify (Present the risk details for consideration)
- Analyze (Impact, Probability, Timeframe)
- Manage (Prioritization, Assignment)
- Plan (Strategies, Metrics)
- Control (Progress, Triggers, Tracking, Status Review, Report Activities)

IDENTIFY

The project team will consider potential risks before they become problems. Project sponsors, customer representatives and resources with historical knowledge of similar projects will be contacted for input into

risk identification early in the planning process. Once the first risk is identified, the risk management plan should be considered in effect until the end of the project. Throughout the project, additional risks may be identified that will also be handled through the same process.

ANALYZE

The purpose of risk analysis is to transform risk data into decision-making information by evaluating its impact, probability, and timeframe so the risk can be qualified, quantified, and prioritized. The following activities occur during risk analysis:

- Determine Impact
- Determine Probability
- Identify Timeframe

These activities are further described below.

DETERMINE IMPACT

Risk impacts can be measured in several ways, but the key indicator to the impact of a risk is that it will cause the project to be non-executable or will breach the baseline. Breaching the baseline might include impact to previously approved deliverables (documentation and/or software) and other items within the baseline. Simple criteria for determining impact is to ask the question: "What would be the impact to the project if the risk occurs?" The scale below can be used as guidance for quantifying the impact of a risk.

Low	♦ Little or minor impact on scope ♦ Achievable schedule or slight delay to schedule ♦ Resources are available
Medium	♦ Major problems but project is viable or functional ♦ Possible milestone date slippage ♦ Resources are delayed
High	♦ Severe damage to viability of project ♦ Likely schedule slippage ♦ Severe delay of resources

DETERMINE PROBABILITY

Probability of a risk is another factor that is considered when analyzing risks. The question asked for this rating is: "What is the likelihood that this risk will occur?" The scale below can be used to define the probability value of a risk.

Low	Improbable (below 30%)
Medium	Some probability (30-70%)
High	Almost certain to occur (greater than 70%)

IDENTIFY TIMEFRAME

The date when a risk will become an issue also needs to be identified. Adjustments and milestones can be worked backward from that date during the mitigation planning step.

The results of this risk analysis process are captured in a risk evaluation worksheet to support the process of managing risks.

MANAGE

Managing risks involves close attention to risk exposure as it relates both to the day-to-day operation and the project's long-term health. Large-scale projects and inherently risky projects tend to create numerous significant risks which must be individually tracked and managed. The major risk management activities include prioritization and assignment. These activities are described below.

PRIORITIZE

Prioritization of risks is paramount in that either un-prioritized risks or risks that all carry top priority (which is the same as being un-prioritized) cannot be effectively managed or controlled. Without specific prioritization and a clear understanding of exposure in the event a risk becomes a threat, risks will appear to lay dormant until the moment they bring the project to an early demise.

When prioritizing risks, managers should carefully consider the output from the Analyze step (impact, probability, timeframe) and prioritize accordingly. If a risk has a high probability of occurrence, but the potential impact is small, then it should be prioritized below a risk that has a high probability of occurrence with the potential for a large impact (assuming both risks have the same timeframe). This prioritization step will help the project team focus attention and efforts on the most critical risks to the project. A Risk Evaluation Worksheet for analyzing and prioritizing potential risks is included in Appendix B.

ASSIGN OWNER

Risk assignments should be both formal and timely. Once a high risk is identified, a risk owner should be assigned immediately so that the risk can be successfully managed. Additional steps are necessary for assigned risks, including planning a strategy and controlling the outcome. Those processes are described below.

PLAN

Risk management planning requires translating high-risk information into strategies or decisions and actions (both present and future) and implementing those actions. The Project Manager will use the following processes when planning actions to be taken.

DEFINE STRATEGIES

High risk items should have a clear strategy for resolution and alternative strategies, as well as drop-dead dates for moving to the alternatives. The strategy or decision may be to avoid the risk, mitigate the risk impact, or accept the risk. Each alternative should contain a risk assessment so that the risk alternative does not cause an additional risk fail-over.

RECORD METRICS

High risks should be tracked for milestones from the date of risk identification until the date of resolution.

Risk mitigation plans must be carefully controlled to correct for deviations and unexpected results. The Project Manager will closely monitor risk actions and control them using the steps described below.

CONTROL

Controlling risks involves much more than reporting the number of risks that have been identified. The risk log has been formulated for tracking purposes and provides an appropriate level of detail to support risk control and management. A Risk Log template and sample are included in Appendix B. The following activities are necessary for tracking risks within projects:

- Track Progress
- Identify Triggers
- Record Metrics

TRACK PROGRESS

Steps to mitigate risks are examined to ensure that the mitigation strategy contains tasks that are both measurable and on track with the project schedule. Progress of planned versus actual steps for risk mitigation should be measured on a weekly basis to ensure progress occurs in these critical areas. Risks should be reviewed at weekly team meetings, in formal reviews, and any time triggers are modified and critical in nature. Risks are updated in the project risk log.

Risk management activities are included in the schedule the same as any of the other project tasks, with assigned owner and planned versus actual progress measured accordingly.

IDENTIFY TRIGGERS

Triggers for each risk should be identified along with the date of the next trigger event. At a minimum, the following should be established for each risk:

- Date the risk will transition to next higher level
- Date the alternative strategy will be invoked

RECORD METRICS

Risks should be monitored and tracked using volume and aging metrics such as the following:

- Total number of risks identified
- Number of risks open greater than one week
- Number of risks open greater than two weeks
- Average time to close a risk

Figure 2 presents an overview of the risk management process. This process incorporates the lifecycle described above but the figure shows the flow regarding project process.

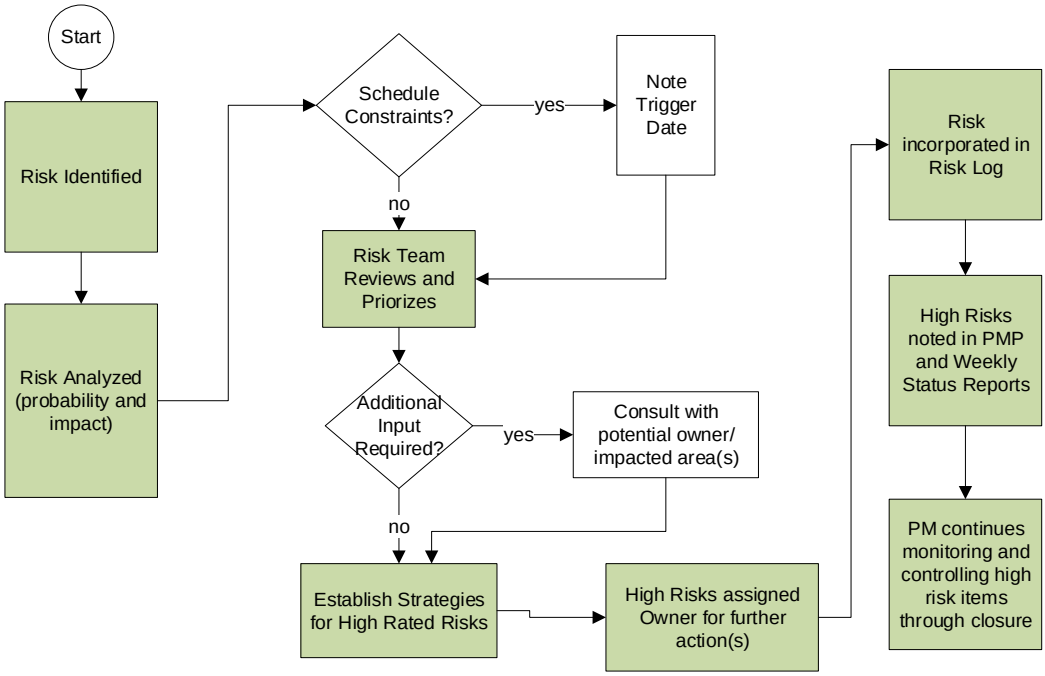

Figure 2 Flow of Risk Management Process

ISSUE MANAGEMENT PLAN

ISSUE CAPTURE

Throughout the project, different sources may identify issues that must be resolved before a project can progress and/or close. All members of the project team must be aware of the process and be prepared to bring a potential issue to the Project Manager for review. The Project Manager along with appropriate team leader or project member will provide a reply to the person that brought up the issue. If the issue is valid, it will be added to the issue list. If it is determined that the concern is not a valid issue, the reason for that decision will be provided in the response as well. If there is a disagreement, an escalation process will be followed.

Once an issue has been determined to be valid, the Project Manager will work with the team lead for that area to identify an issue owner, document the issue details, and ensure the issue is logged in the project's issue repository. A template and sample Issue Log are provided in Appendix B- Project Management. The information typically maintained for an issue includes:

- Issue Identification Number
- Date Submitted
- Submitted By
- Issue Impact (current impact or potential future impact)
- Issue Description (detailed description of the issue)
- Issue Status
- Prioritization (high, medium, low)

- Issue Owner (name of person assigned to analyze the issue and provide tracking information)
- Potential Solution (detailed description of solution)
- Effort Estimate (amount of time to resolve issue)
- Target Resolution Date (date the issue must be resolved to prevent project failure)
- Final Resolution (description of how issue was resolved)
- Final Resolution Date (date of actual resolution)

If an issue has multiple components, it generally will need to be separated into individual issues so that each component can be managed.

ISSUE RESOLUTION

ISSUE TRACKING AND REPORTING

After an issue is resolved, the issue owner will ensure the resolution description and resolution date are captured in the Issue Log. Project Manager will confirm that the issue is resolved and approve it for closure.

Issue tracking also involves the assessment of the project plan to determine issue impacts, issue escalation, issue reporting, and issue maintenance. The Project Manager will assess the project plan to determine any impact the unplanned issue may have on the schedule and budget. If any of the following occurs, the Project Manager will document a change request:

- Issue owner needs to conduct research and this research will impact the project schedule and/or budget
- Issue owner requires additional resources to resolve the issue
- Schedule and/or budget is impacted by working on the issue

As needed, the Project Manager will add tasks to the project plan so that time spent working the issue is tracked and logged.

The Project Manager will be responsible for ensuring all team members, sponsors, and stakeholders are kept abreast of the status of all project issues. Significant issues will be discussed during project status meetings and management meetings. An Issue Log Summary will be kept up to date. The summary will include a brief description of each issue, potential impact to the project, issue owner, target close date, actual close date, and the current status.

CHANGE MANAGEMENT PLAN

Project management involves a continual process of monitoring and controlling the scope of work to be completed, or scope management. This helps assure that the teams work on the work required for the stated project deliverables. This process also helps define how the team will address any proposed modifications to the scope. Through this change management process, the common problem of scope creep will be minimized.

The agreed project scope established within this document and the statement of work contracts between College and the vendors is the baseline for any changes that may be presented. A change is defined as an adjustment to any aspect of the project scope or an already approved deliverable. This includes anything formally documented in the Project Charter, Project Management Plan, or any deliverable produced during the project.

The change management process controls how a change is proposed, evaluated, approved or rejected, scheduled, tracked, and implemented. Unmanaged changes can disastrously affect the project schedule and project deliverables; therefore, it is important that a joint effort be made at all levels of the governing structure to fully understand and implement the change management process. Advantages to a formal change management process include the following:

- Enables the project team to effectively manage changes to the project
- Provides uniform, clearly defined procedures for handling changes when they occur
- Defines how changes can be initiated and provides a format for addressing, submitting and documenting them
- Assesses the impact of change on existing commitments
- Ensures that changes are approved by the appropriate participants
- Prevents unauthorized changes from affecting the project
- Reduces surprises to the customer, project team and stakeholders
- Reduces the possibility of scope creep

CHANGE MANAGEMENT PROCESS

The change management process includes the following specific steps which are also depicted in Figure 1 and further described in the following sections.

- Establish the overall procedures and specific roles for the review process.
- Identify and submit the change request, including description, reason, benefit, impact and alternative solutions.
- Analyze the submitted change request, including impacts to schedule, cost, resources, risk and quality.
- Submit the change request for review and decision.
- Document the decision regarding the requested change. This may include final entries in the change tracking log as well as any resolution task assignments in the project work plan.
- Adjust the project scope, budget, schedule, resources, and or quality expectations to reflect any approved change.

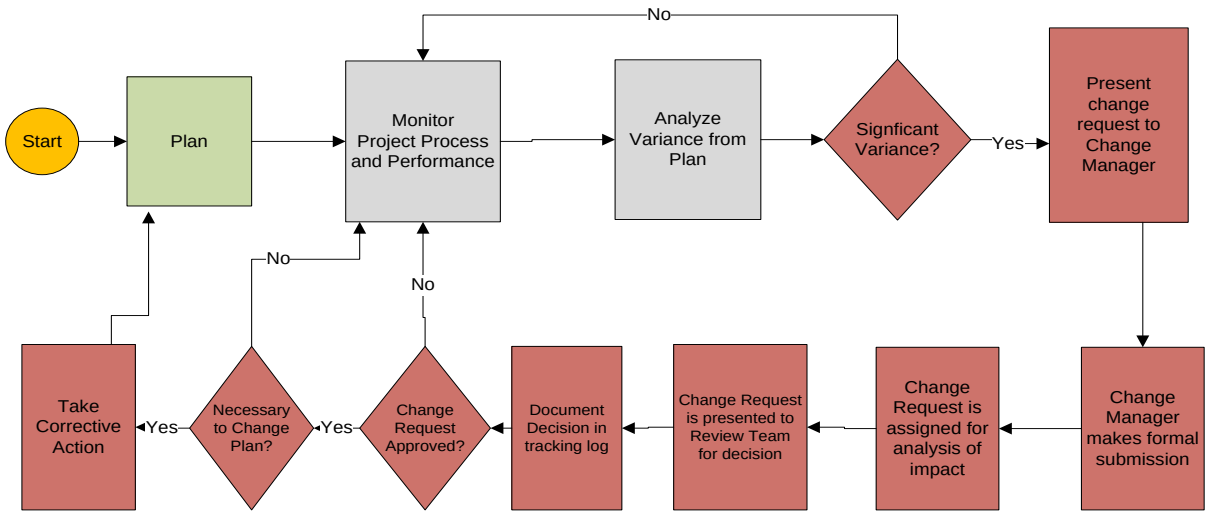

Figure 1 Change Management Process

THE CHANGE REQUEST PROCESS

The first step to managing change is identifying who is authorized to submit a formal request. Since informal requests can come from many different sources, a focal point must be identified for all requests. The resource(s) assigned to this role should have a broad enough view of the project to be able to understand the change requests' impact to project cost, scope, schedule and quality, as well as a clear and detailed understanding of the Statement of Work. This role will be responsible for reviewing the informal request and determining if a formal change request should be initiated. The steps for initiating a change request includes:

1. Informal request is submitted to the appropriate Project Lead based on the content of the request.
2. Project Lead will discuss requested change with requester and if appropriate begin to fill out a change request form. The project lead will make sure Project Manager and Sponsor is aware of the change request.
3. Project Lead will submit the requested change to Working Group Chair for discussion at next working group meeting. Project Working Group will vet the requested change and provide an impact analysis if the change does not get implemented.

CHANGE REQUEST SUBMITTAL

When a change is determined to be a valid request by the affected working group, the change Request form will be filled out as fully as possible by the Project Lead and Working Group chair and will submitted to both the Project Sponsor and the Project Manager. The project sponsor and manager will discuss and determine if the request should be further analyzed for impacts.

IMPACT ANALYSIS

The Project Manager will assign appropriate team member(s) to analyze the change. The Team reviewer will analyze the request in terms of level of effort and skill required to implement it as well as the feasibility from a technical or implementation standpoint. Estimated impact to project cost, scope,

schedule, and quality will be provided in the change request form. If the change is complex or affects systems that are not part of the project, the Project Manager will work with appropriate internal teams and external vendors to determine the amount of time needed to fully research the impact.

CHANGE DECISION

Once the Project Manager completes the impact analysis of the requested change, it will be submitted to the Steering Committee for decision. The steering committee will discuss the change request response with the appropriate team members, ensure it is fully understood and then decide on whether to implement the change. Because of the dynamic nature of projects, the impact analysis will be valid for 15 business days from when the response was provided for decision. If a decision is not made within those 15 days, the change request will need to be re-submitted with any additional impact information. If more time is needed to approve a change request, it will be communicated to the Project Manager prior to the 10 days and a timeframe will be agreed upon.

DOCUMENTATION

The Project Manager will log each change request in the Change Request Log. If the change is approved, updates will be provided until the change is deployed. The log will include the change request number, a brief description of every change, the disposition of the change, and the associated investment. The Change Request Log is included in Appendix B – Project Management templates.

CHANGE IMPLEMENTATION

Upon approval of a change, the Project Manager will assign tasks to appropriate team members for implementation and will modify the project schedule to include all necessary tasks and schedule changes and establish a new baseline for the remainder of the project. The project budget and project plan documents will also be updated accordingly, with all changes presented for approval.

It is critical to note that proposed changes may not be approved. If that occurs, it is important for the Project Manager and the project team members as well to recognize that fact and proceed with only the project tasks that support approved scope. Any work on unapproved scope changes can endanger the project completion date and cost. The change management process is established specifically to prevent this type of negative impact on the project.

PROJECT MANAGEMENT FORMS

The following project management forms and tracking tools will be utilized throughout the project.

1. Project Statuses
2. Agenda development & Reporting
3. Tracking Open Action Items
4. Tracking, Monitoring & Reporting
5. Tracking Change Requests
6. Tracking Key Decisions
7. Change Impact Log