Presidential Semester Review Task Force

Final Report

December 11, 2012

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Presidential Semester Review Task Force

FINAL REPORT

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Errata File

This file contains a list of some minor typos that have been corrected in this version of the Presidential Semester Review Task Force Final Report. No other changes have been made to the report submitted on December 11, 2012.

Executive Summary, page 3, second complete paragraph, added words “internationally from” before “24 countries ...”.

Executive Summary, page 5, third complete paragraph, replaced upper-case “S” with a lower-case “s” on line 8 of the paragraph (“Semester-based” replaced with “semester-based”).

Executive Summary, page 5, fourth complete paragraph, replaced upper-case “S” with a lower-case “s” on line 1 of the paragraph (“Semester-based” replaced with “semester-based”).

Executive Summary, page 5, fourth complete paragraph, replaced upper-case “Q” with lower-case “q” on line 2 of the paragraph (“Quarter” replaced with “quarter”).

Executive Summary, page 5, fourth complete paragraph, replaced upper-case “Q” with lower-case “q” on line 2 of the paragraph (“Quarter-based” replaced with “quarter-based”).

Executive Summary, page 5, fourth complete paragraph, replaced upper-case “S” with lower-case “s” on line 2 of the paragraph (“Semesters” replaced with “Semesters”).

Survey Explanation, p. 74, first complete paragraph, “9.8% favored” replaced with “27.8% favored” (typo in submitted draft due to a cut and paste error).
Executive Summary

Charge to Committee

President Armstrong established the Semester Review Task Force (SRTF) at the beginning of the fall, 2012 quarter. The SRTF was charged with “exploring what would be involved if Cal Poly were to convert to semesters” and producing a report at the end of the quarter, including an overall recommendation.

Recommendation

Based on the evidence gathered from consultations with students, faculty, staff, alumni, and industry partners, the Semester Review Task Force (SRTF) recommends that Cal Poly does not further pursue a conversion from the quarter system to the semester system at this time.

The SRTF found that, while there is a strong commitment among all our constituents to improve Cal Poly continuously to enhance student success, the SRTF did not see significant evidence that a calendar conversion from quarters to semesters would result in improved student outcomes.

Thus, the SRTF recommends that Cal Poly remain on the quarter system, and that Cal Poly focus on the curricular and administrative improvements, about which there is much enthusiasm among our constituents, that will help us continue to graduate the knowledgeable, innovative, and resourceful graduates for which we have earned our reputation.

The main reasons that support the recommendation of the SRTF include:

- The SRTF did not find significant evidence that a conversion to semesters would result in improved student outcomes
- Although there are merits to the semester calendar, as identified by many program directors in student affairs, participants in workshop exercises, and some members of the SRTF, the cost, stress, and negative impact of conversion outweigh the merits
- The opportunity costs may be too high; there are many initiatives currently underway that will lead to improvement that faculty and staff would need to set aside so they could turn to the project of converting
- There is no clear indication that a switch to semesters would improve Cal Poly’s future strategic position
- The economic returns to the CSU System of Cal Poly’s conversion to a common semester-based information system do not seem to justify the large
expense of conversion, especially because of deep investments already made to local systems to maximize their performance for the quarter system

- If the resources for a conversion were available, they would very likely be better allocated to improvements more closely related to student success such as improvements to the implementation of the teacher-scholar model, and curricular innovation and development

In its many interactions with members of the campus community, the SRTF found that sometimes there was a desire for the task force to provide an additional level of detail that was simply unavailable. Some questions concerning the details of operations on the semester calendar simply cannot be answered until either we decide to convert or the conversion is complete. However, this report represents a dedicated, comprehensive and open effort to collect facts and opinions about a potential conversion to a semester calendar.

**Methodology**

The Academic Senate appointed a faculty member from each of the six colleges and one member from Professional Consultative Services. In addition, the Academic Senate Curriculum Committee Chair and the Academic Senate General Education Governance Board Chair served on the task force. President Armstrong appointed a faculty member as chair of the task force. The Associated Students, Incorporated (ASI) President, Katie Morrow, appointed three students to the task force. The task force also benefited greatly from representatives from the following areas:

- One Academic Dean, nominated by the Academic Deans
- Registrar, or designee
- Vice Provost for Information Services and CIO, or designee
- Vice President for Student Affairs, or designee
- Student Affairs staff member, nominated by the Vice President for Student Affairs
- Vice President for Administration and Finance, or designee
- Vice President for University Advancement, or designee
- Provost, or designee
- An alumni representative, nominated by the Alumni Association President
- Chief of Staff, ex officio, non-voting

The SRTF held four campus-wide meetings and four campus wide-workshops. One workshop was designated particularly for staff. Additional workshops were conducted for the ASI Board and the Academic Senate. At each Academic Senate meeting in fall, 2012 quarter, at the request of the Academic Senate Chair, the task force chair gave an update of the task force’s progress and answered questions. The task force chair
consulted with several other groups at the request of different university stakeholders. Included in the appendices is a table listing some of the SRTF related meetings and consultations.

The SRTF used input from workshops, meetings, and several surveys to gather information about whether it makes sense for Cal Poly to convert to semesters at this time. The SRTF issued a survey to the entire campus body. Experts in the social sciences and statistics developed the survey. The former director of Institutional Planning and Analysis was consulted about the draft survey and made suggestions to improve it, which were adopted. The SRTF used input from campus meetings and workshops to develop the survey.

A total of 7171 campus members took the survey (686 faculty members; 661 staff members; 5824 student members). Fifty-two percent of the survey responses were from off-campus members. Nationally, Cal Poly faculty, staff, and students responded from a wide range of locations, including 35 states, and internationally from 24 countries (Australia, Brazil, Canada, Chile, China, Costa Rica, Czech Republic, Denmark, El Salvador, France, Germany, Ghana, Ireland, Italy, Japan, Korea, Malaysia, Spain, Sweden, Thailand, Turkey, United Arab Emirates, United Kingdom, USA).

Included in this report is an account of the survey issued to faculty, staff, and students. A detailed analysis of each survey question is included in the appendices. In responding to the survey questions, faculty, staff, and students collectively wrote nearly 400 pages of comments. The comments are included, verbatim, in the appendices. The SRTF read all of the comments and redacted only profanities, of which there were only a few and personal identity information, such as email addresses or names some respondents included. The comments are in compliance with human subject policy.

In addition to faculty, staff, and students, the SRTF conducted surveys with several other stakeholders, including:

- Employers/Recruiters of Cal Poly students
- Alumni
- President’s Cabinet

The Semester Review Task Force was unable to survey graduate and professional schools on the impact of changing to semesters. It is difficult to send out a survey since the campus no longer hosts a recruiting event for graduate and professional schools. Workshops and panels on admissions, financial aid, personal statements and individualized counseling sessions have replaced the recruiting event as a more productive means of supporting graduate admissions. Included in this report are analyses of the employer/recruiter, alumni, and cabinet efforts.
Katie Morrow, ASI President, took the initiative to develop a survey tool ASI students could use to survey students. ASI students surveyed approximately 1000 students. Included in this report is the ASI Semester Conversion Outreach Report. The ASI Semester Conversion Outreach Report summarizes the ASI survey findings.

The SRTF read several “pros/cons” types of lists developed by other campuses considering converting from quarters to semesters. The SRTF asked several campus constituents to prepare pros/cons lists drawing from their expertise, including Student Affairs, ASI Staff, and advisers. Using input from workshops and the various surveys, the SRTF developed its own “merits/demerits” list. Included in this report are all SRTF efforts to identify some of the upsides and downsides of the semester and quarter calendar systems. Included in the appendices are all workshop answers.

The SRTF developed a set of “guiding principles” and offers them to the campus in this report for further input.

The SRTF depended on experts to compose the component parts of the report. For instance, Mary Pedersen worked on expected impact on accreditation and program review, while Al Liddicoat worked on explaining the various aspects that determine workload.

The SRTF includes in this report several items not originally requested of it. For instance, in response to input and sometimes, misconceptions, we learned of issues to explore, such as potential impact on lab facilities should Cal Poly convert and graduation rates under semesters and quarters according to the Integrated Postsecondary Education Data System.

Some Decision Criteria

The body of this report represents the primary decision criteria the SRTF used in arriving at an overall recommendation. However, it is helpful to underscore a few of the criteria.

Student success was the first and main criterion the SRTF used in arriving at an overall recommendation. The SRTF could not determine that a semester calendar schedule leads to better learning outcomes than a quarter calendar schedule. There seems to be a dearth of research and data from campuses that convert from quarters to semesters, or vice versa, regarding whether students are more successful after a conversion. The SRTF observes that there are excellent campuses on semesters and quarters, including campuses with a significant polytechnic presence. A recurring comment from survey respondents and others was, “if it ain’t broke, don’t fix it.” Should Cal Poly convert to semesters in spite of the recommendation of the SRTF, the SRTF requests that every effort be taken to help the students be successful during the conversion process.
Another criterion the SRTF used concerned the curriculum and what we mean by “transforming” it. The SRTF found the concept to be too open-textured and unclear. More attention to what the faculty wants to do with the curriculum as we get deeper into the 21st century is needed.

The SRTF’s best estimation regarding the cost of Cal Poly converting to semesters ranges from $18.15 to $21.23 million dollars over a 7 to 11 year period. The economic returns to the CSU System of converting to a common information system does not seem to justify the large expense and risk of a conversion to semesters. A summary account of how the SRTF arrived at their estimated cost is included in this report, along with several additional reports in which a more fine-grained breakdown of expected costs in particular units can be found. In arriving at an estimated cost, the SRTF asked how much it would cost to convert if the faculty and staff were fully supported in undertaking the conversion.

The Office of the Chancellor put together a proposed plan of synergies and cost savings that could fund a conversion to semester system based on cost savings, included in the appendices. The main hypothesis is that converting the six quarter-based IT systems to a single common semester-based system to be run on a central system would result in a system-wide cost savings. The SRTF finds this strategy to be high-cost, high-risk, and potentially, low-reward. An alternative implementation strategy that is low-risk and possibly high-reward would be to implement the common IT system on the existing semester-based campuses. This would avoid the high-costs and risk of the semester calendar conversion. The high reward comes when the common IT system is successfully implemented which would recognize cost savings on 17 campuses (vs 6).

Once this approach is proven across the semester-based campuses, attention could be then redirected to the remaining quarter-based campuses with either a common quarter-based system or a conversion to semesters.

The SRTF also considered wide-spread resistance from campus constituents about converting to semesters. The SRTF knows that the faculty and staff have worked very hard for the past several years under difficult budget conditions. That Cal Poly has continued to be successful is, in large part, due to the sacrifices of the faculty and staff. If Cal Poly does convert to semesters in spite of the recommendation of the SRTF, the SRTF urges that faculty and staff be adequately supported during the conversion process. The SRTF is grateful for some of the thoughtful and constructive feedback it received from campus constituents, such as the feedback on the following page from the College of Agriculture, Food, and Environmental Sciences College Club Council. The Club Council requested a meeting with the SRTF Chair, during which students and faculty had an educative and civilized discourse. Shortly thereafter, the Club Council submitted to the SRTF the following resolution.
College of Agriculture, Food, and Environmental Sciences College Club Council
California Polytechnic State University
San Luis Obispo

Resolution #13-01

College of Agriculture, Food, and Environmental Sciences College Club Council Supports the Cal Poly Quarter System

WHEREAS: The College of Agriculture, Food, and Environmental Sciences (CAFES) College Club Council is the official voice of CAFES clubs, and

WHEREAS: The CAFES College Club Council representatives were given the option of discussing the state of conversion to a semester based system as it has a great influence on the educational experience CAFES students have at Cal Poly, and

WHEREAS: The CAFES College Club Council representatives voted to be more educated on this serious issue, and

WHEREAS: The CAFES College Club Council representatives were educated about the subject by a presentation from Dr. Fernflores, the chair of the Semester Review Task Force, on October 23rd, 2012, and

WHEREAS: The CAFES College Club Council representatives returned to their respective clubs to educate the members of the ASI-chartered CAFES clubs, and

WHEREAS: The CAFES College Club Council representatives conducted a second discussion at the October 30th, 2012 CAFES College Club Council meeting on the merits and demerits of converting to a semester system from Cal Poly’s current quarter system.

THEREFORE
BE IT
RESOLVED: The CAFES College Club Council supports Cal Poly’s quarter system, and
FURTHERMORE
BE IT
RESOLVED: Some of the reasons CAFES College Club Council supports the quarter system consists of:

- The summer scheduling in a quarter system allows students to obtain internships that last through agriculture harvests;
- The quarter system allows for more varied and seasonal opportunities in enterprises offered by departments within CAFES;
- The quarter system allows for a more adequate range of classes during a school year, which better prepares students in CAFES to learn more about the diversity and breadth of California agriculture industries;
- The pace of the quarter system prepares CAFES students for the fast-paced work load in the industry as noted by agriculture industry professionals, and

FURTHERMORE
BE IT
RESOLVED: That the current quarter curriculum of CAFES undergoes a thorough academic program review to ensure students continue to receive a comprehensive degree.

CERTIFIED as the true and correct copy, in witness thereof, I have set my hand and Seal of the CAFES College Club Council Advisor, this ___ day of ___________, 2012.

___________________________________  ___________________________________
CAFES College Club Council Advisor                      CAFES College Club Council President

ADOPTED at the regular meeting of the Board of Directors by unanimous vote on November 13, 2013

Sponsored by: Chandler Wilson, President, CAFES College Club Council
Joseph Alexandre, Vice President, CAFES College Club Council
Taylor Denney, Treasurer, CAFES College Club Council
Meghan Bishop, Secretary, CAFES College Club Council
Special Thanks

The SRTF thanks Kelly Sebastian for her extraordinary administrative support. The SRTF could not have met its deadline without her work.

The SRTF also thanks webmaster Dustin DeBrum for his web support.

Craig Schultz carefully and graciously issued the survey and collected valuable metrics for the SRTF. The SRTF appreciates his dedication to the campus.

The SRTF also wishes to thank Mary Pedersen and Al Liddicoat, who did not serve on the SRTF, but who graciously took the time to contribute to the report from their expertise.
Some Guiding Principles for Undertaking Substantive Change at Cal Poly

Guiding principles sub-group members: Graham Archer, Helen Bailey, Rick Bergquist, Dave Clague, Joette Eisengart, Rachel Fernflores, Nathan Honeycutt, Derek Gragson, Lorlie Leetham, Johanna Madjedi, Derek Majewski, Tatiana Prestininzi, Martin Shibata, Mark Zohns

When undertaking any substantive change in an organization a set of guiding principles is essential in order to ground the effort and ensure success. Following are four principles identified by the SRTF that should be considered if Cal Poly were to convert to a semester calendar. The SRTF supports an inclusive process involving faculty, staff, administration, and students should there be interest in developing more specific guiding principles Cal Poly can use in approaching substantive change to the institution.

Preserve and enhance:
- Student success
- Learn by Doing
- Faculty and Staff Morale & Vitality
- Fiscal Responsibility

Student Success

Some actions leading to student success are found tangible and easily identifiable. Others, though, are more speculative. For example, the SRTF discussed whether declaring a major is key to the success of our students. Others suggested that the true measure of student success is determined if a student receives gainful employment in a field related to his/her degree. The SRTF suggests Cal Poly engage in a discussion about whether it would make sense for our prospective students to declare “zones” and/or majors in some cases. The SRTF notes that in declaring a major in advance of attending Cal Poly, prospective students may be showing a level of self-awareness that contributes to their successes. In declaring their majors early, even if they later change majors, Cal Poly students demonstrate that they have a plan, often at a very young age. They also demonstrate that they expect the University to have a plan for them. However, the SRTF believes the same type of self-awareness that leads to student success could still be present among students even if they only declared a “zone” prior to admission.

The SRTF identified several objectives associated with increasing and enhancing student success that must be retained during any substantive change.

Provide students support and opportunities to:
- interact with peers from diverse communities
- learn how to learn (about themselves and the world’s challenges)
o graduate in the time period documented by the university
o experience real world challenges that require innovation and creative leadership (in the curricular and co-curricular experience)
o work collaboratively
o acquire transferable skills, especially in critical thinking
o explore options (e.g., examine the effectiveness of declaration of major upon admittance, room in the curriculum to take course not specifically related to their degree)
o pursue chosen fields of work or post-baccalaureate education
o become world citizens through the development of the whole person, as citizen, problem-solver, lifelong learner
o participate in shared governance processes
o to grow in their responsibilities as they progress through their academic career

Learn by Doing
Learn by Doing is the cohesive theme that our students, faculty, staff, alumni and the community as a whole relate to as core to Cal Poly’s identity. This is exemplified through experience gained from hands-on labs, co-ops, projects, writing, internships, exposure to enterprise and co-curriculum activities. Learn by doing is at the heart of the means to our end, ensuring that our students are as successful as they can be during their time at Cal Poly and after graduation.

Morale and Vitality of Cal Poly Faculty and Staff
As core change agents, Cal Poly faculty and staff must be enthusiastic about the vision, understand their connection to our objectives and engaged in the change process itself. Thus, ensuring the morale and vitality of faculty and staff is critical to our success. The SRTF identified several objectives associated with sustaining and enhancing the morale and vitality of our faculty and staff during a substantive change.

- Set reasonable expectations of what faculty and staff members can achieve when going through a substantive change. For faculty, this includes adequate funding and support for course and program development, sustained excellence in teaching and scholarly activities. For staff, this includes adequate funding and support to maintain existing services while new services and processes are being developed, reasonable expectations for service enhancements (or freeze of existing service levels) and appropriate investments in professional development.
- Continue to strengthen the role that faculty and staff play in shared governance processes
- Ensure that substantive change produces genuine transformation and not just steady state under new conditions
Fiscal Responsibility

The impact of a substantial change on our ability to sustain and enhance Cal Poly’s mission is that much higher when our problem solving flexibility is so severely restricted due to limited financial resources. To increase our possibilities of success and reduce the risks of failure we need to

- Understand the total costs of transition
- Define how we will measure our success
- Continuously look for opportunities to reduce costs but not at the expense of our principles defined here.
Merits/Demerits List

Merits/Demerits sub-group members: Graham Archer, Helen Bailey, Rick Bergquist, Joette Eisengart, Rachel Fernflores, Nathan Honeycutt, Derek Gragson, Lorlie Leetham, Johanna Madjedi, Derek Majewski, Tatiana Prestininzi, Martin Shibata, Mark Zohns

The SRTF developed a set of merits and demerits regarding semesters and quarters. The SRTF used feedback from the workshops, emails, and the surveys to create the list. The SRTF found that in many cases, determining whether something is a merit or demerit of either calendar system is dependent on perspective, rather than quantifiable data. It is important to note that the SRTF Merits/Demerits is not exhaustive.

Merits of Semesters:

- One fewer preparation, registration, and final grade cycle per year
- Longer duration for projects, co-ops, experiments
- Revised curriculum
- Longer periods of time for faculty and students to work together
- Possible alignment with other semester campuses (high school and community colleges)
- Better alignment with some summer work and internships
- Longer release time for faculty
- Longer sabbaticals
- Possibly easier implementation of teacher-scholar model
- Potentially more rewarding team experiences
- More opportunities for academically at-risk students to improve
- One fewer AP/DQ cycle per year
- Potential three-week intersession courses and, hence, potentially more opportunities to make up failed courses
- More opportunities for Student Affairs programming and faculty research and creative activities during longer break between semesters
- Possible improved student wellness because of reduced stress and psychological pressure
Demerits of Semesters:

- Less variety of courses, depending on how the faculty develops the curriculum
- Fewer, larger fee and tuition payments for students (i.e., two payments instead of three)
- Greater likelihood that students will have to complete academic work during Spring break
- Increased cost for faculty release time
- More limited summer school offerings in some disciplines
- Possibly larger class sizes
- Possibly increased demand for labs and classrooms
- Possibly increased student procrastination
- Potentially more challenging to maintain team cohesiveness for duration of a full semester
- Potentially more difficult AP/DQ choices
- Potentially more difficult to “bank” summer term
- Possibly longer time to complete change of majors

Merits of Quarters:

- Faster pace of instruction that resembles industry pace and is preferred by many students
- Greater variety of courses and professors for students
- Better alignment for Fall work and internships for agriculture and recreation students
- Better timeline for internship for some majors
- More opportunities to get courses
- Proven student success on the quarter system, e.g., we have the highest graduation rate in the CSU System
- Better strategic position in our niche because our top competitor schools are quarter schools
- More opportunities for faculty and students to adjust their loads, i.e., more opportunities for faculty to teach, and students to take, more courses in a given quarter and less in another
- Established record of success in specialized courses and enterprise projects in the quarter system
- Greater likelihood that students and faculty will experiment with courses
- Lower system loads because of off-cycle peaks compared to CSU semester campuses
- Potentially beneficial to students who are uniquely suited to the pace and style of the quarter system
- For faculty who can afford a two-quarter sabbatical, longer opportunities for professional development

**Demerits of Quarters:**

- Work for faculty and staff over Spring break
- Less work and internships for some students
- Fewer opportunities for internships for some majors
- More difficulties with some exchange programs with semester campuses
- More opportunities to fail courses
- Shorter opportunities for professional development for faculty who cannot afford a two-quarter sabbatical
Conversation on Transforming Cal Poly Curriculum
Summary of Issues
J. Machamer & A. Schaffner

Background:
During the Fall Quarter 2012 (November 11, 2012 & November 14, 2012), a conversation about curriculum was initiated by the chairs of the Academic Senate Curriculum Committee (Dr. Andrew Schaffner) and the General Education Governance Board (Prof. Josh Machamer). Stemming from earlier discussions within the quarter related to calendar conversion and the idea of “transforming” or “streamlining” the curriculum, the goal of these informal proactive “fireside” chats was to bring together faculty and staff with curriculum experience from across colleges in an exercise of possibility. Independent from the University’s discussions around exploring semesters, these forums were seen as an opportunity to take a formative look at “the curriculum” at Cal Poly, with the possibility of defining a strategy or vision for the future.

In order to strengthen the overall teaching and learning at Cal Poly, what change/transformation needs happen to the University curriculum?

With this prompt as the only mechanism to frame the dialogue, participants began to speak about several current and future issues related to the delivery of university and programmatic curriculum. These preliminary thoughts are collected here.

GENERAL EDUCATION
- There is a perception of a two-track curriculum (Major & GE). Can (or should) there be more clear relation/partnerships between curricula? Can/should GE and the Major interface more with one another?
- Where is the education of value (publicly) about GE as it relates to the creation of a comprehensive polytechnic? What can be done to strengthen overall perception of GE as a unique and viable entity at Cal Poly – at several different levels (colleges, departments, administration, admissions, e.g.)?
- Can GE and Cal Poly’s definition of it have a more representative approach with investment, responsibility, and ownership across all colleges (versus seemingly being “owned” by two colleges: CLA and COSAM)?
- GE imparts foundational knowledge – we should consider carefully whether or not we wish to allow (or encourage) boutique and specially tailored GE to service specific disciplines. With that in mind, we do not want the aspect of “foundational” knowledge be lost or devalued as something “anyone” can teach in other programs.
- Consider exploring opportunities to “flex” GE: creation of tracks or experience within GE to help integrate with programs/department flow of specialized curriculum.
- What is the budget model, if any, for GE courses?

CURRICULUM AS A WHOLE
- Where are the interdisciplinary opportunities? How can these be more readily structured for faculty?
- Where is the place to “test” new ideas, new courses?
• How can we support team teaching, particularly across disciplines? Where can it be accentuated and produced within the current curriculum structure? Or linked courses?

ADMISSIONS/MAJOR COURSE OF STUDY
• Does the declaration of major upon entry automatically focus students more toward “career” and “major” skills without the sense of foundation learning and exploration that GE can provide?
• Can the admissions process play a part in the creation of better inclusivity of “university” skills within the curriculum?
• Is it possible for students to be admitted in zones/colleges versus departments with zone-based curricula? For example, a “First Year” set of common experiences could lay the groundwork for major zone of study and those experiences could then be increasingly major-focused with each subsequent year.
• Currently, there is no mechanism that really allows students to explore subjects/majors. Is this what makes Cal Poly unique? How might this be done and still allow for acceptable progress to degree standards/graduation rates?

POLICY
• How can curriculum better support the Teacher/Scholar model and vice-versa?
• How can we provide a mechanism for accurate assessment/critique of courses within departments (number of offerings, recertification of courses, need of new proposals)? Some perceived problems stem from what professors want to teach versus what students need to learn (outcomes vs. content).
• What is the understanding behind concentrations? Is there (or should there be) a push to limit or eliminate?

PLAN
• Define the ideal of streamlining as relates to an administrative strategy? What does it mean objectively; is it simply a unit count issue? What does it mean subjectively?
• Does curriculum have a strategic plan as related to the nomenclature of “streamlining” or “transforming”? Would flexibility be a better way to approach the goal of looking at revising curriculum? Does this transformation align with missions or Cal Poly strategies for Presidential non-negotiable ideals?
• Do we have an agreed-upon idea of what higher education means?
• What is the future and purpose of online/hybrid education at the University?

PROCESS
• Create a transparent and common idea of curriculum vocabulary; additionally, look to train faculty about the proposal process.
• Consider increasing the involvement of ASCC and GEGB representatives earlier in the curriculum proposal process by embedding experienced members in college committees. Provide members with resources to support and guide departments throughout the proposal process.
• What are the clear expectations along each “touch-point” of the proposal/modification approval chain? Additionally, is there a way in which curricular changes can be shared earlier in the process of review?
• Can we live longer with curriculum/catalogue cycles to better test/assess their ability before rebooting? Or, would it be better to move to a more flexible 1-year catalog cycle?
Could the course funding model be examined? How does the funding model impact curricular development? What is the clear budget allocation model for curriculum? Many departments, because of cuts, circle their “wagons” for curriculum delivery and in doing so, cut off the rest of the University students in order to protect their majors’ progress to degree.
Background and Details to Support Calculations of Timeline and Costs

Subgroup members: Kimi Ikeda, Cem Sunata, Helen Bailey, Johanna Madjedi, Lorlie Leetham, and Andrew Schaffner

A subgroup of the Semester Review Task Force formed to address Items 3, 4, 7, 10, and 11 of the Task Force’s charges. The charges are:

3. A timeline for conversion Cal Poly could meet.
4. An estimated total cost of a conversion.
7. Expected needs of advisers during and following a conversion.
10. Expected information technology needs during and following a conversion.
11. Expected admissions, catalog revision, registration, scheduling, and evaluation needs.

This document details how the subgroup arrived at its figures, which are in the attached supporting document. We acknowledge that our cost and timeline figures are larger than those of other schools, and we believe it important to address the reasons why. We also want to avoid figures that appear low now, but inflate later (Ohio State originally estimated between $8.7 and $11.2 million, but came in at $12.6 million).

The subgroup made every effort to be as detailed and thorough as possible, to enable the President to make a fully informed decision with all relevant data in hand. Calculating time and cost was part of our charge, but is only a part of the complex factors involved in this decision. These calculations should be read as being about the transition, not about the end result of a conversion decision.

Note: A separate document, “Technology Costs Associated with a Conversion from Quarter to Semester,” prepared from the IT perspective, contains some overlap with this document, due to the high degree of interrelatedness between functional and technical aspects. The two documents are designed to offer different, but complementary, perspectives on these matters.

Timeline of 7 to 11 years (Charge #3):

Conversion Planning—one year minimum:
The figure is based on suggestions and feedback from other schools, some of which expressed regret that they did not allow more time for planning. Therefore, we believed it wise to err on the side of caution.

Examples of the need for adequate planning time: the Senate would need to decide on the structure of courses (mainly 3-unit or 4-unit courses), whether a temporary revised process for curriculum review is in order, and, if so, time to develop that process.

Curriculum Conversion—4 years (12 quarters):
While other campuses have suggested 2-3 years, our figure, which is roughly double the timeframe for a regular catalog cycle, allows sufficient time for faculty to embrace transformational opportunities, rather than merely convert curricula.

**Academic and Administrative Support Systems Conversion—21 months:**
- The figure is based on expertise gained from our original conversion to PeopleSoft.
- Consultants advise that this would be essentially a reimplementation of our system, not merely an upgrade. Therefore, all foundational aspects must be revisited, the most foundational being set-up tables. PeopleSoft is designed for integrated processing; modules share tables, thus they must proceed with caution and consult with one another.
- We would need to convert student enrollment data in detail, not merely summarize it.
- In order to be ready for a Fall 20XX go-live data, it is necessary to work backwards to achieve certain milestones.
- Many more of our systems are integrated with PeopleSoft than at some schools, and we have many auxiliary systems that interact with PeopleSoft. For example, CSU LA does not have a Data Warehouse.
- We use the functionality of our degree audit more comprehensively and accurately than some other schools.
- While some systems work could occur simultaneously with the curriculum timeline (e.g., building of some courses into the database), most would need to occur after curricular work has concluded. Amount of overlap would depend on extent of curricular overhaul.

Note: this timeline assumes a fall start on the new calendar, but this is to be determined: Financial Aid and registration considerations might dictate a summer start.

**Post Conversion Work—4 years:**
Other schools omit any reference to the time required to graduate transitional students—at Cal Poly, approximately 15,000 students would be affected by this switch. We judged it important to include such a figure, as Cal Poly would not fully be on semesters until the vast majority of such students have graduated, and thus, not in a position to recognize potential benefits that are being theorized for semesters (e.g., improved graduation rates).

**Charges #4, 7, 10, and 11 (interrelated):**

The following table provides low and high estimates of the various cost components associated with conversion:

<table>
<thead>
<tr>
<th>Component</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curricular transformation</td>
<td>$3.30M</td>
<td>$8.20M</td>
</tr>
<tr>
<td>Academic and Administrative Support Systems</td>
<td>$6.20M</td>
<td>$9.30M</td>
</tr>
<tr>
<td>(including Evaluations and Advising for those student who are enrolled at the time of a conversion)</td>
<td>$4.25M</td>
<td>$6.63M</td>
</tr>
<tr>
<td>Information Technology Systems</td>
<td>$18.15M</td>
<td>$21.23M</td>
</tr>
<tr>
<td>Total</td>
<td>$27.65M</td>
<td>$35.06M</td>
</tr>
</tbody>
</table>
Note: We have observed what we consider to be a significant omission in other campuses’ figures, which often explicitly state “without software costs” (Pomona is an example).¹ We believe it is critical to include such software and hardware costs to arrive at a true figure.

Assumptions:
Before explaining these figures, it is important to note some key assumptions that underlie our calculations. Were these assumptions not to prove the case, as the implementation went forward, cost estimates would change. Conversely, if the funds we outline were not forthcoming, then the assumptions would have to change.

- A freeze on campus expectations (e.g., no new policies or programs, no implementation of campus initiatives).
- Some units would have to implement systemwide initiatives that occur simultaneously; these individuals would also be tasked with maintaining current functionality and calendar conversion. Without enhanced staffing, this is a dilemma that we cannot articulate how we would solve.
- Maintenance, rather than enhancement, of current levels of services and of functionality. Neither should suffer for campus constituent groups due to calendar conversion. A few examples: timely processing of: Financial Aid disbursements, student fees, payments and refunds, transfer credit evaluations, degree conferral, and maintenance of student-specific aspects of the degree audit; Data Warehouse capabilities and reporting needs; Portal; wireless; PolyLearn, etc.
- Calendar conversion cannot coincide with the “Common HR/SA Administrative System Split” timeline. This is a CSU-driven initiative that will consume significant resources of the same experts involved in the systems aspects of calendar conversion.
- Terms Versus Sessions: All Cal Poly academic units would conform to the use of a standard session within each semester term. Reason: CSU and Cal Poly fee structures, coupled with current PeopleSoft configuration and functionality, do not provide for multiple sessions within a single term. Calculations of staff resources would increase substantially, both during and after conversion, if flexible session calendars were allowed. Note: intersessions between terms are a separate matter.
- A stable (i.e., frozen) catalog as we convert.

Backfill:
- Hiring one year in advance is based on experience gained in the initial implementation and the recent upgrade to 9.0. We believe it is essential for adequate training on functional and technical needs, to be ready to step in when conversion experts begin their work. Furthermore, moving through the cycle of an academic year greatly assists in the ability to assist in maintaining current levels of service and functionality. A more compressed timetable would place undue stress on current staff and jeopardize both current levels as well as the implementation.
- Salary calculations are for entry-level positions, though higher salaries might be required to attract and ensure expertise levels. Salary ranges are based on AAS Exempt I and Analyst Programmer Career Entry Level.
- Salary figures include both salary and benefits.
- Consultant figures are industry standard for systems consultants.
Space:
The original PeopleSoft implementation demonstrated the value of a common work space, for synergy and consultation. It brings experts together to arrive quickly at mutually agreeable solutions with a common meeting area. Add to these benefits the shortage of existing facilities satisfactory for such a project.

Hardware:
Consistent with recent developments, we assume we will be charged by CMS for the various PeopleSoft environments needed to develop, test, and implement new configurations. Other auxiliary systems would also require development, test, and production environments.

IT:
Please see separate document, “Technology Costs Associated with a Conversion from Quarter to Semester.”

Curriculum:
Please see separate document “Cost Estimate for Curriculum Conversion.”

Advising/Evaluation Costs:
- Please see the separate document, “Advisors’ Perspective on Semester Conversion,” for a full rationale for both timeline estimates and number of advisors needed.
- Evaluations: this unit, charged with being the signoff on degree conferral, will need to review all majors’ pathways to graduation (three templates per major); they must review every transitional student’s graduation plan to ensure that it provides an accurate, complete path to graduation; and they will perform a thorough check at the time of degree conferral.
- Given the complexity of Evaluations’ current knowledge base, and the increased complexity of progress-to-degree calculations outlined above, a year minimum of training is vital to ensure compliance with Title 5, campus, and program requirements, and to adequately support advisors in their efforts to assist transitional students. Close collaboration will be required, and advisors will need to be able to rely on timely service from Evaluations.

Other Costs:
We have not seen other campuses thoroughly address some peripheral, but important, costs. They are mentioned here, but we have not attached dollar amounts.
- Instructional designers and other personnel for curriculum conversion and transformation (e.g., CTLT, PolyLearn support)
- Course materials: tests, assignments, etc.
- Needed updates to Cal Poly publications and websites
- A transition team: minimum of a lead, a communications expert, and an Admin Support Coordinator. Research and feedback from other schools indicate this is imperative for a smooth and timely transition.
- Marketing costs
• Impact on revenues from application fees: other campuses report a decline in applications for several years surrounding conversion. Percentage drop is unknown.

1RIT’s document, “Quarter-to-Semester Calendar Conversion,” by Kit Mayberry (2009), clearly states “Many schools do not include the purchase and/or upgrading of systems as strict conversion costs, reasoning that the costs were inevitable apart from a calendar conversion.” We have taken a different approach: distinguishing normal and necessary maintenance and upgrade costs from those involved in a calendar conversion.
Systems and Technology in support of student administrative processes

Cal Poly has enhanced many administrative processes through automation by using technology to manage common transactions based on defined business rules.

Examples of services for students include:

- Loading of over 44,000 applications into the Student Administration System each year
- Providing a Cal Poly identifier each applicant (jstudent@calpoly.edu)
- Selection of admitted students based on multiple criteria factors for each program (MCA)
- Providing a Cal Poly email account for each enrolled student (jstudent@calpoly.edu)
- Block scheduling of freshmen for key courses in the Fall (Block Scheduling)
- Providing access for applicants / admitted / enrolled students via the campus Portal to applications so they can:

<table>
<thead>
<tr>
<th>view their application status</th>
<th>pay for parking, registration fees, housing and dining</th>
</tr>
</thead>
<tbody>
<tr>
<td>if admitted, accept or decline their intent to attend the University</td>
<td>access the PolyLearn(Moodle) Learning Management System for only the classes in which they are enrolled</td>
</tr>
<tr>
<td>apply for on campus housing</td>
<td>request a change of major</td>
</tr>
<tr>
<td>register for the campus dining program</td>
<td>access to their grades</td>
</tr>
<tr>
<td>view what requirements they have met towards their progress to degree</td>
<td>expose their unofficial transcripts or GPA to users they define (e.g., their parents, insurance companies for good student discounts, hiring companies verification for internships, etc.)</td>
</tr>
<tr>
<td>view status of financial aid</td>
<td>access to their unofficial transcripts</td>
</tr>
<tr>
<td>plan which classes they want to register for</td>
<td>record their work time for student assistants and feed to Payroll</td>
</tr>
<tr>
<td>register for classes based on their priority</td>
<td>access School of Ed credentialing information</td>
</tr>
<tr>
<td>view where they stand on a wait list for a course</td>
<td>vote online for ASI elections and referendums</td>
</tr>
<tr>
<td>list courses they are currently enrolled in</td>
<td>Use their campus ID card (PolyCard) for dining, library access, city bus services and door access to select labs</td>
</tr>
</tbody>
</table>

Examples of services for faculty and advisors include:

- List of courses they are teaching each quarter (instructor of record)
- Class lists (available for printing or emailing to the enrolled students) updated daily
- Creation of a PolyLearn(Moodle) Learning Management System space for each class section each quarter. Content is retained for the previous 5 quarters
- View of a student’s progress to degree to aid in advising
- Access to a student’s change of major “contract” and status
- On-line grade submittal
- Course evaluations processing
- Lecturer hire workflow

In addition, Cal Poly utilizes the data associated with these transactions to provide analytic reporting available to over 500 campus staff. Descriptions of the information available can be found at: http://polydata.calpoly.edu/content/dashboards/index

**Decisions that could have significant impact on final conversion efforts and cost**

As with any large initiative, broad consultation with campus partners and a more detailed assessment will be required. Cost would vary greatly depending on the University’s decisions regarding:

- Timing of the conversion including amount of planning and preparation time
- Transformation of existing quarter credits to semester
- Priority registration schedules
- Financial aid award process changes
- Institutional Planning and Analysis reporting
- Expectations regarding historical data mapped to semester equivalents
- Changes to instructional segments in eLearning and hybrid classes and associated technology enhancements and more

**Estimated costs to convert existing applications and data to a semester calendar**

In order to convert to a semester calendar the graduation requirements associated with each degree program must be entered into the Student Administration System and corresponding business rules reflected in the data models defined in the campus' data warehouse.

Conversion of the Student Administrative System (CMS PeopleSoft): $1.17M-$1.60M
Conversion of all other related data repositories and applications: $3.08M-$5.03M

**Total IT Conversion Cost Estimate:** $4.25M - $6.63M
**Total Academic/Administrative Systems Conversion Cost Estimate:** $6.20M - $9.30M

**Total Systems and IT Conversion Cost Estimate:** $10.45M-$15.93M

**Assumptions**

These cost estimates are based on the following assumptions:

- there would be a freeze on any significant changes to policies, programs or the catalog that would affect the conversion deliverables
- any implementation of multiple sessions per term would be considered after the conversion has been completed. Limitations to the CSU and Cal Poly fee structure along with the lack of “out of the box” capability in the current Student Administration System (CMS PeopleSoft) would add a substantial level of complexity and additional resources to implement.
- the result of the conversion effort would maintain the current level of functionality and not include any significant enhancements
- history of previous student records will be retained and not aggregated into a semester equivalency. This implies that two similar, but separate data models will co-exist in the data warehouse and integration would happen at the application and reporting level
- since this is an extensive effort requiring specific knowledge of the campus business practices and data models over an extended period of time, some level of staff backfill and consulting is required to maintain the existing production systems
- parallel hardware and software systems would need to be available for development of the new semester-based systems.
- a conversion would not take place in conjunction with the CSU’s implementation of a Common HR System (CHRS). The existing Student Administration System (SA) and Human Resource System (HR) use the same software application called Human Capital Management, or HCM. HR and SA were combined to take advantage of a common set of information about people (students, faculty and staff) referred to as the ‘Campus Community’ in PeopleSoft. In order to create one common HR system for all CSU campuses, the CSU must split each campus’ HCM environment and use an external ‘data hub’ to coordinate the campus community information between the SA and HR systems. For instance, tying the faculty employee record to the SA System’s faculty of record for a course or identifying a student assistant as an enrolled student and an employee. Implementation of a semester conversion and CHRS at the same time would create an unacceptable risk due to the complexities associated with such an endeavor.

On-going Operational Considerations

In general, operational processes would likely remain the same within ITS after the conversion effort. As such, on-going resources associated with support for standard patching, troubleshooting, system/application upgrades and service enhancements should remain the same.

Because ITS takes advantage of academic breaks and low impact times for significant system maintenance and outages, a semester schedule could possibly be to ITS’ advantage.

- Winter and Spring breaks may be longer. This would allow for more time to work on telecommunication and multimedia equipment maintenance in classrooms.
- One less quarter would reduce the typical preparation work that is performed for systems such as PolyLearn(Moodle).

CSU campuses share hardware resources for CMS PeopleSoft; in a semester environment the Cal Poly academic calendar will more closely coincide with at least 20 other CSU campuses. There have always been contention and performance issues during peak times for activities such as faculty hires, registration, and grading. Since Cal Poly’s academic calendar is currently different than the other CSU campuses, system performance has not affected service to our users or our business process in the same way it does for semester campuses. Cal Poly could see significant performance degradation if our new semester academic calendar is too closely aligned with other campuses.
Quarter to Semester Comparison of Reported Cost Estimates
December 2012

Prepared by Johanna Madjedi

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>Cal Poly</td>
<td>Incl.</td>
<td>$3,300,000-$8,200,000</td>
<td>$6,200,000-$9,300,000</td>
<td>$4,250,000-$6,630,000</td>
<td>$4,400,000-$5,100,000</td>
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<td>Not Reported</td>
</tr>
<tr>
<td>Cal State LA</td>
<td>*</td>
<td>$1,137,000</td>
<td>$750,000</td>
<td>$1,800,000</td>
<td>$2,600,000</td>
<td>$88,000</td>
<td>$1,014,000</td>
</tr>
<tr>
<td>CSU Pomona³</td>
<td>*</td>
<td>Not Reported</td>
<td>Not Reported</td>
<td>Specifically Not Included</td>
<td>Not Reported</td>
<td>Not Reported</td>
<td>Not Reported</td>
</tr>
<tr>
<td>Ohio State⁴</td>
<td>*</td>
<td>$2,400,000⁵</td>
<td>Not Reported</td>
<td>Low: $5,000,000 High: $7,000,000</td>
<td>$600,000</td>
<td>Not Reported</td>
<td>$300,000</td>
</tr>
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<td>Univ of Cincinnati</td>
<td>*</td>
<td>$2,848,000</td>
<td>$2,161,000</td>
<td>$1,606,000</td>
<td>$5,097,000</td>
<td>Not Reported</td>
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<tr>
<td>RIT⁶</td>
<td>*</td>
<td>$1,400,000</td>
<td>Not Reported</td>
<td>Specifically Not Included</td>
<td>$1,480,000</td>
<td></td>
<td>$988,595</td>
</tr>
</tbody>
</table>

1 Per Cal State LA Report Page 35: “Cost is subject to change based on the final decisions that get made for the campus related to the conversion and post conversion of data to support a student’s full academic record.” Assume this does not include costs to convert full academic record
2 Does not include CMS HW/SW costs, any Data Warehouse or Degree Audit conversion
3 IT Costs not included in estimates. Other expenditures not itemized.
4 $11.8M actuals reported in August 2012.
5 Per RIT Report – didn’t see this in Ohio State docs
6 RIT reported IT Costs could be anywhere from $5M-$25M

URL References
CSU Pomona: [http://www.csupomona.edu/~calendar_convert/questionandanswers.shtml](http://www.csupomona.edu/~calendar_convert/questionandanswers.shtml)
E:\Report briefcase\07 University Cost Comparison.docx
* University decisions regarding degree audit implementation has a significant impact on cost and timeline to convert data. The extent of degree audit implementations was not detailed enough in these reports to make a comparison.

http://www.thelantern.com/campus/ohio-state-semester-conversion-costs-university-11-8m-1.2885974#.ULVwYtep288
RIT: http://www.rit.edu/~w-conver/media/documents/CalendarConversionReportbyDrMayberry.pdf
Cost Estimate for Curriculum Conversion
Prepared by Graham Archer and Andrew Schaffner

Departmental Proposal Development

ASSUMPTIONS

- We normally alter around 15% of our curriculum in a catalog review.
- 1 FTEF = 1 Assistant Professor at lowest rank (salary + benefits) = $71K
- 1 FTEF = 180 work-days × 8 hours of work / work-day = 1,440 hours of work
- Most existing courses do not have learning objectives (or course proposals) on file, thus course objectives (mapped to program objectives) need to be developed for most proposals.
- There will be fewer courses in the new catalog (~2,000) than our current catalog (~3,600) due to the reduction of courses needed in the new programs and a lack of interest in re-proposing “dead” courses and first round of review won’t include all “extra” elective courses.
- There are 65 undergraduate programs and 28 graduate programs (ignoring certificates).
- Curriculum development at the departmental level consists of two main components: individual courses and program design.
- Development for proposal and approval (not material for teaching) consists of
  - Planning and consultation meetings: full department, subcommittee, service consultations
  - Strawman development
  - Course paperwork
  - Program and flowchart development

INTERVIEW QUESTIONS

- Tenure-track faculty size
- Total hours of full department meetings (including retreats)
- Mean number of hours per course to develop strawman for discussion
- Number of client courses, mean number of consultation meetings and meeting size
- Number of core courses
  - Of core, number requiring subcommittees, mean number of meetings and meeting size
- Mean number of hours per course to fill out course proposal
- Total hours to develop and fill out paperwork for major program
- Total hours to fill out minor program
### SUMMARY OF RESULTS

![Box plot showing FTEF distribution per course and per program](image)

<table>
<thead>
<tr>
<th></th>
<th>FTEF</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Q1</th>
<th>Median</th>
<th>Q3</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Per course</td>
<td>0.0384</td>
<td>0.0311</td>
<td>0.0085</td>
<td>0.0171</td>
<td>0.0289</td>
<td>0.0590</td>
<td>0.1014</td>
<td></td>
</tr>
<tr>
<td>Per program</td>
<td>0.1752</td>
<td>0.1379</td>
<td>0.0507</td>
<td>0.0608</td>
<td>0.1493</td>
<td>0.2609</td>
<td>0.4667</td>
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</tbody>
</table>

N=10

### Mean

<table>
<thead>
<tr>
<th>FTEF per</th>
<th>n</th>
<th>FTEF</th>
<th>replacement cost</th>
<th>“Added Work”</th>
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<tbody>
<tr>
<td>Course</td>
<td>0.0384</td>
<td>2000</td>
<td>76.8 $</td>
<td>$ 5,453,000</td>
</tr>
<tr>
<td>Program</td>
<td>0.1752</td>
<td>93</td>
<td>16.3 $</td>
<td>$ 1,157,000</td>
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<tr>
<td>sum</td>
<td>93.1</td>
<td>6,610,000</td>
<td>$ 5,618,000</td>
<td></td>
</tr>
</tbody>
</table>

Since we normally alter 15% that would part of our “normal” workload, the “added work” would be 85% × $6,609,646 = $5,618,199

### Lower 95% confidence limit

<table>
<thead>
<tr>
<th>FTEF per</th>
<th>N</th>
<th>FTEF</th>
<th>replacement cost</th>
<th>“Added Work”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course</td>
<td>0.0171</td>
<td>2000</td>
<td>34.2 $</td>
<td>$ 2,424,000</td>
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<tr>
<td>Program</td>
<td>0.0782</td>
<td>93</td>
<td>7.3 $</td>
<td>$ 518,000</td>
</tr>
<tr>
<td>sum</td>
<td>41.5</td>
<td>2,942,000</td>
<td>$ 2,501,000</td>
<td></td>
</tr>
</tbody>
</table>

### Upper 95% confidence limit

<table>
<thead>
<tr>
<th>FTEF per</th>
<th>n</th>
<th>FTEF</th>
<th>replacement cost</th>
<th>“Added Work”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course</td>
<td>0.0507</td>
<td>2000</td>
<td>101.4 $</td>
<td>$ 7,199,000</td>
</tr>
<tr>
<td>Program</td>
<td>0.2316</td>
<td>93</td>
<td>21.5 $</td>
<td>$ 1,527,000</td>
</tr>
<tr>
<td>sum</td>
<td>122.9</td>
<td>8,726,000</td>
<td>$ 7,417,000</td>
<td></td>
</tr>
</tbody>
</table>

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1 Confidence limits are based on first log transforming original FTEF estimates due to the strong skew in the data. Standard errors were corrected using the finite population correction factor based on 58 departments.
Bottom line based on mean: $5,618,199  
Bottom line interval: $2,501,000 to $7,417,000

Note that the above mean numbers translate to approximately 55 person-hours per course and 252 person-hours per program or $2,726 and $12,439, respectively (based on means) (without the 85% factor) This is in line with the $3,000 stipend Continuing Ed offers for online course conversion.

College Level Review

ASSUMPTIONS

- We normally alter around 15% of our curriculum in a catalog review

Thus, the workload of the college committees would increase almost 7-fold. That is, they should allocate approximately 7 times their normal time allotment for review.

Data to estimate this cost is not available at this time.

ASCC Review

ASSUMPTIONS

- The committee consists of 8 faculty plus 1-3 Registrar staff plus 1 Academic Programs
- There will be 44 weeks of 20 hours of face-to-face meetings/week of the entire committee.
- A minimum of 10 hours of meeting preparations will take place outside of meeting times each week.

FACULTY COMPONENT

8 faculty × (10 + 20) hours / week × 44 weeks = 10,560 person-hours

10,560 person-hours ÷ 1,400 hours / FTEF = 7.33 FTEF

7.33 FTEF * $71,000 / FTEF = $520,666

STAFF COMPONENT

4 staff × (10 + 20) hours / week × 44 weeks = 5,280 person-hours

5,280 person-hours ÷ 2,080 hours / FTE = 2.53 FTES

2.53 FTES × $102,000 / FTES = $258,923
Total: $520,666 + $258,923 = $779,589

“Added work” assuming 15% basis for normal review: 85% × $779,589 = $662,650

Bottom Line: $662,650

**GEGB Review**

**ASSUMPTIONS**
- The committee consists of 9 faculty plus 1 staff
- There will be approximately 200 GE courses to review (10% of the 2,000 courses)

**FACULTY COMPONENT**
9 faculty × 3 hours / week × 44 weeks = 1,188 person-hours

1,188 person-hours ÷ 1,400 hours / FTEF = 0.849 FTEF

0.849 FTEF × $71,000 / FTEF = $60,249

**STAFF COMPONENT**
1 staff × 3 hours / week × 44 weeks = 132 person-hours

132 person-hours ÷ 2,080 hours / FTES = 0.064 FTES

0.064 FTES × $102,000 / FTES = $6,473

Total = $60,249 + $6,473 = $66,722

“Added work” assuming 15% basis for normal review: 85% × $66,722 = $56,713

Bottom Line: $56,713
Revised Articulation Agreements

ASSUMPTION
- All Cal Poly articulation agreements would need to be updated to reflect the new semester-based curriculum
- There would be approximately 10,000 to 12,000 articulation agreements to review (rough estimate from Articulation Officer)
- Articulation specialists within departments (often chairs) must approve agreements
- The most cursory review would take at least 10 minutes per course

FACULTY COMPONENT

10,000 courses × 0.1667 hours / course = 1,667 person-hours

1,667 person-hours ÷ 1,400 hours / FTEF = 1.191 FTEF

1.191 FTEF × $71,000 / FTEF = $84,534

“Added work” assuming 15% basis for normal review: 85% × $84,534 = $71,845

Bottom Line: $71,845

Estimated Grand Total

Note the grand total does not account for college review efforts and presumes no radical transformation to the curriculum.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>95% lower</th>
<th>95% upper</th>
</tr>
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<tbody>
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<td>$2,501,000</td>
<td>$7,417,000</td>
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<td>College*</td>
<td>$0</td>
<td>$0</td>
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<tr>
<td>SCC</td>
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<td>$662,650</td>
<td>$662,650</td>
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<tr>
<td>GEGB</td>
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<td>$56,713</td>
<td>$56,713</td>
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<td>Articulation</td>
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<td>$71,845</td>
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<tr>
<td>Total</td>
<td>$6,409,407</td>
<td>$3,292,208</td>
<td>$8,208,208</td>
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</table>

* No college info at this time
### Academic/Administrative Support Systems - Estimated Cost Detail

<table>
<thead>
<tr>
<th>Back Fill - Module/Area</th>
<th># of FTE</th>
<th>Annual</th>
<th>Monthly</th>
<th># of Pre-Months</th>
<th># of Months</th>
<th>Total</th>
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<tbody>
<tr>
<td>Academic Advising</td>
<td>5.0</td>
<td>$69,118</td>
<td>$5,760</td>
<td>12</td>
<td>21</td>
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<tr>
<td>Admissions</td>
<td>2.0</td>
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<td>$5,760</td>
<td>12</td>
<td>21</td>
<td>$380,147</td>
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<tr>
<td>Financial Aid</td>
<td>3.0</td>
<td>$69,118</td>
<td>$5,760</td>
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<tr>
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<tr>
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<tr>
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<td>$6,462</td>
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<td>21</td>
<td>$213,258</td>
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<td>20.0</td>
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</table>

Functional Staff backfill: Administrative Analyst/Specialist Exempt I Entry Level plus budgeted staff benefits of 49.8%
Technical Staff backfill: Analyst Programmer Career Level plus budgeted staff benefits of 49.8%

<table>
<thead>
<tr>
<th>Consultants</th>
<th>Hourly Rate</th>
<th>Travel @ 20%</th>
<th># of Months</th>
<th>Hours Per Month</th>
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<tr>
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<tr>
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<td>$180</td>
<td>21</td>
<td>160</td>
<td>$604,800</td>
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<tr>
<td>Financial Aid</td>
<td>$150</td>
<td>$180</td>
<td>21</td>
<td>160</td>
<td>$604,800</td>
</tr>
<tr>
<td>Student Financials</td>
<td>$150</td>
<td>$180</td>
<td>21</td>
<td>160</td>
<td>$604,800</td>
</tr>
<tr>
<td>Student Records</td>
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<td>$180</td>
<td>21</td>
<td>160</td>
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</tr>
<tr>
<td>Technical Support-Admin</td>
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<td>$180</td>
<td>21</td>
<td>160</td>
<td>$1,209,600</td>
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9.0 $5,443,200

$9,267,859 High
$6,209,466 Low @ 67%
## Cal Poly Semester Review
### IT Cost Estimates - Detail (Best Case)

<table>
<thead>
<tr>
<th>Project Management</th>
<th>Staffing required FTE</th>
<th>Duration (months)</th>
<th>Backfill: Maint Activities only FTE</th>
<th>Duration (months)</th>
<th>Hardware/Software Duration (months)</th>
<th>Unit cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Project Leads</td>
<td>2</td>
<td>21</td>
<td>ITS Staff + 1 consult</td>
<td>$ 529,200</td>
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</tr>
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<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>CMS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Development</td>
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<td>18</td>
<td>ITS Staff + 1 consult</td>
<td>$ 453,600</td>
<td>0.5</td>
<td>18</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Development (Post)</td>
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</tr>
<tr>
<td>Change Management</td>
<td>1.0</td>
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<td>ITS Staff</td>
<td>$ 653,600</td>
<td>0.5</td>
<td>18</td>
</tr>
<tr>
<td>Security</td>
<td>1.0</td>
<td>18</td>
<td>ITS Staff</td>
<td>$ 653,600</td>
<td>0.5</td>
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<tr>
<td>DBA</td>
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<td>Consultant</td>
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<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Data Warehouse</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Data Warehouse Architect</td>
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<td>18</td>
<td>ITS Staff</td>
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<td></td>
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</tr>
<tr>
<td>ETL Development</td>
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<td>ITS Staff</td>
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<td></td>
<td></td>
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<tr>
<td>BI Development</td>
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<td>21</td>
<td>ITS Staff + 1 consult</td>
<td>$ 529,200</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>Identity Mgmt Dev</td>
<td>1</td>
<td>21</td>
<td>ITS Staff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DBA</td>
<td>1</td>
<td>21</td>
<td>ITS Staff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cal Poly Developed Applications</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JAVA Developer</td>
<td>5</td>
<td>15</td>
<td>ITS Staff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobile App Developer</td>
<td>1</td>
<td>8</td>
<td>ITS Staff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DBA</td>
<td>0.5</td>
<td>15</td>
<td>ITS Staff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cal Poly &quot;Off the Shelf&quot; Applications</td>
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<tr>
<td>Application Administrator</td>
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<td>ITS Staff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DBA</td>
<td>1</td>
<td>15</td>
<td>ITS Staff</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Decommission of quarter system PeopleSoft Environments
Post-production 9 $ 5,000 $45,000 $315,000
Database
- Decommission
- Post-production

Three parallel PeopleSoft Environments
 Development 18 $ 5,000 $90,000
 Test 18 $ 5,000 $90,000
 Staging 18 $ 5,000 $90,000

Three parallel Datawarehouse and BI Environments
 Development $200,000
 Test $200,000
 Staging $200,000

Three parallel app environment (Cal Poly developed an)
 Development $200,000
 Test $200,000
 Staging $200,000

$ 529,200 $ 523,422

$ 680,400 $ 174,474

$ 297,252 $600,000

December 2012
Cal Poly Semester Review
IT Cost Estimates - Detail (Best Case)

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decommission of quarter system</td>
<td>$529,200</td>
</tr>
<tr>
<td>PeopleSoft Environments</td>
<td>$1,169,874</td>
</tr>
<tr>
<td>Three parallel app environments (Cal Poly developed and OTS)</td>
<td>$1,652,622</td>
</tr>
<tr>
<td>and OTS)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$897,252</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>$ -</td>
</tr>
<tr>
<td></td>
<td>$4,248,948</td>
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</table>
# Cal Poly Semester Review
## IT Cost Estimates - Details (Worst Case)

### Project Management

<table>
<thead>
<tr>
<th>Project</th>
<th>Staffing required</th>
<th>Backfill: Normal Activities</th>
<th>Hardware/Software</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FTE</td>
<td>Duration (months)</td>
<td>FTE</td>
</tr>
<tr>
<td>Technical Project Leads</td>
<td>2 21 ITS Staff + 1 consult</td>
<td>$ 529,200</td>
<td>1 21</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### CMS

<table>
<thead>
<tr>
<th>Development</th>
<th>FTE</th>
<th>Duration (months)</th>
<th>FTE</th>
<th>Duration (months)</th>
<th>Unit cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development (Post)</td>
<td>1.0</td>
<td>4 Consultant</td>
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<td>18</td>
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<tr>
<td>Change Management</td>
<td>1.0</td>
<td>18 ITS Staff</td>
<td>1.0</td>
<td>18</td>
<td>$ 116,316</td>
</tr>
<tr>
<td>Security</td>
<td>1.0</td>
<td>18 ITS Staff</td>
<td>1.0</td>
<td>18</td>
<td>$ 116,316</td>
</tr>
<tr>
<td>DBA</td>
<td>1.0</td>
<td>18 Consultant</td>
<td>1.0</td>
<td>18</td>
<td>$ 116,316</td>
</tr>
</tbody>
</table>

### Data Warehouse

<table>
<thead>
<tr>
<th>Data Warehouse Architect</th>
<th>FTE</th>
<th>Duration (months)</th>
<th>FTE</th>
<th>Duration (months)</th>
<th>Unit cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETL Development</td>
<td>2</td>
<td>21 ITS Staff</td>
<td>2</td>
<td>18</td>
<td>$ 232,632</td>
</tr>
<tr>
<td>BI Development</td>
<td>2</td>
<td>21 ITS Staff + 1 consult</td>
<td>$ 529,200</td>
<td>2 18</td>
<td>$ 232,632</td>
</tr>
<tr>
<td>Identity Mgmt Dev</td>
<td>1</td>
<td>21 ITS Staff</td>
<td>1</td>
<td>18</td>
<td>$ 116,316</td>
</tr>
<tr>
<td>DBA</td>
<td>1</td>
<td>21 ITS Staff</td>
<td>1</td>
<td>18</td>
<td>$ 116,316</td>
</tr>
</tbody>
</table>

### Cal Poly Developed Applications

<table>
<thead>
<tr>
<th>JAVA Developer</th>
<th>FTE</th>
<th>Duration (months)</th>
<th>FTE</th>
<th>Duration (months)</th>
<th>Unit cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile App Developer</td>
<td>1</td>
<td>8 ITS Staff</td>
<td>1</td>
<td>8</td>
<td>$ 51,696</td>
</tr>
<tr>
<td>DBA</td>
<td>0.5</td>
<td>15 ITS Staff</td>
<td>0.5</td>
<td>12</td>
<td>$ 67,410</td>
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</table>

### Cal Poly "Off the Shelf" Applications

<table>
<thead>
<tr>
<th>Application Administrator</th>
<th>FTE</th>
<th>Duration (months)</th>
<th>FTE</th>
<th>Duration (months)</th>
<th>Unit cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBA</td>
<td>1</td>
<td>15 ITS Staff</td>
<td>1</td>
<td>15</td>
<td>$ 168,525</td>
</tr>
</tbody>
</table>

Total Costs:
- CMS: $ 730,800
- Data Warehouse: $ 551,178
- Cal Poly Developed Applications: $ 900,126
- Cal Poly "Off the Shelf" Applications: $ 793,206
- Total: $ 793,206

Note: The costs include three parallel PeopleSoft Environments, three parallel Datawarehouse and BI Environments, and three parallel app environments (Cal Poly developed and OTS).
<table>
<thead>
<tr>
<th>Category</th>
<th>Cost (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decommission of quarter system</td>
<td>$765,135</td>
</tr>
<tr>
<td>PeopleSoft Environments</td>
<td>$1,596,978</td>
</tr>
<tr>
<td>Three parallel app environment</td>
<td>$2,029,326</td>
</tr>
<tr>
<td>(Cal Poly developed and OTS)</td>
<td>$1,393,206</td>
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<tr>
<td></td>
<td>$842,625</td>
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<tr>
<td>Total</td>
<td>$6,627,270</td>
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</table>
Cal Poly Semester Review
IT Cost Estimates - Definitions

Unit Cost Estimates

<table>
<thead>
<tr>
<th>Position</th>
<th>Monthly Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Analyst Programmer</td>
<td>$6,462.00 base salary per month incl. benefits</td>
</tr>
<tr>
<td>Career Analyst Programmer</td>
<td>$11,235.00 experienced @$90K/yr incl. benefits</td>
</tr>
<tr>
<td>Consultant</td>
<td>$25,200.00 average monthly cost - 1 week on site each month</td>
</tr>
<tr>
<td>CMS Unisys</td>
<td>$5,000.00 Estimated cost per PeopleSoft environment per month</td>
</tr>
</tbody>
</table>

Technical Project Lead
Analyst Programmer or equivalent with project management experience

CMS - Student Administration System
Developer
Analyst Programmer with experience using PeopleSoft's programming language called PeopleTools
Change Management
Analyst Programmer with experience following CSU's code revision processes and system architecture
Security
Information Technology Consultant with experience configuring PeopleSoft account security
Database Administrator
Analyst Programmer with experience managing PeopleSoft database tables (many thousands) including performance tuning and maintenance

Data Warehouse
Includes the central database environment containing the consolidation of various sources of information created using defined business logic and the software to present the data to end users and other applications

Data Warehouse Architect
Analyst Programmer with experience managing Cal Poly data models (relational sets of data that enables users and applications to access relevant data)

ETL Developer
Analyst Programmer with experience extracting, transforming and loading information from PeopleSoft database tables (multiple thousands of tables), coding Cal Poly business rules to transform the transactional data into analytical information

BI Developer
Analyst Programmer with experience using Cal Poly business intelligence tools and Cal Poly administrative business processes

Identity Management Developer
Analyst Programmer with experience merging, reconciling and presenting data about people associated with Cal Poly to enable automated account management, authentication and directory services for the campus applications

Database Administrator
Analyst Programmer with experience managing Cal Poly database tables including performance tuning and maintenance

Cal Poly Developed Applications and Workflow Support
Includes applications such as the Cal Poly Portal, Multi-criteria Admissions, Plan A Student Schedule, Student Payroll System, Change of Major, Lecture Hire Workflow, etc.
JAVA Developer
Analyst Programmer with experience supporting Cal Poly applications developed using JAVA and other programming tools
Mobile App Developer
Analyst Programmer with experience supporting Cal Poly developed mobile applications

Cal Poly "Off the Shelf" Applications

NO NAME:Report briefcase:10 Technology Support Costs Detail Appendix 5.xlsx
December 2012
Includes applications written by others such as PolyLearn (Moodle), Email/Calendar, Email distribution lists, Class Scheduling & Events (Resource25), PolyCard (ID Card system)

<table>
<thead>
<tr>
<th>Role</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application Administrator</td>
<td>Analyst Programmer with experience managing assigned applications including integration with automated account provisioning, authentication systems and the Portal</td>
</tr>
<tr>
<td>Database Administrator</td>
<td>Analyst Programmer with experience managing Cal Poly database tables including performance tuning and maintenance</td>
</tr>
</tbody>
</table>
## Advising/Evaluations Support - Estimated Cost Detail

<table>
<thead>
<tr>
<th>Advising/Evaluations</th>
<th>Annual</th>
<th>Monthly</th>
<th># of Pre-Months</th>
<th># of Months</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advisors</td>
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<td>$4,813</td>
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<tr>
<td>Advisors</td>
<td>9.0</td>
<td>$57,753</td>
<td>$4,813</td>
<td>30</td>
<td>$1,299,443</td>
</tr>
<tr>
<td>Evaluations</td>
<td>5.0</td>
<td>$57,753</td>
<td>$4,813</td>
<td>12</td>
<td>48</td>
</tr>
</tbody>
</table>

$5,053,391 High

| Advisors             | 7.0     | $57,753 | $4,813          | 12          | 48       | $2,021,356 |
| Advisors             | 8.0     | $57,753 | $4,813          | 30          | $1,155,061 |
| Evaluations          | 4.5     | $57,753 | $4,813          | 12          | 48       | $1,299,443 |

$4,475,860 Low

Advising/Evaluations Staff Support: Student Services Professional IB plus budgeted staff benefits of 55.15\%
Accreditation and Program Review: Impact of Semester Conversion

Prepared by Mary Pedersen

“The California State University (CSU) Board of Trustees established an academic planning and program review policy (AP 71-32) requiring each campus to establish criteria and procedures for...conducting regular program reviews of existing programs.” (Cal Poly AS Resolution 552-00/IALA). The policy recommends a six-year cycle for periodic reviews of all academic programs, including General Education, and centers and institutes. Currently, we have 64 undergraduate programs, 31 graduate programs and 22 centers and institutes. Centers and institutes have not been incorporated into the schedule and this needs to be done in the near future.

Currently, 27 undergraduate (UG) and 20 graduate (G) programs are undergoing, or have recently completed, program review (2009 cohort through 2012, see table grey area). Beginning with the 2013 academic year, and for the next 5 years, 38 undergraduate and 11 graduate programs are scheduled to undergo program review. Of the 38 undergraduate programs, 18 will also be undergoing accreditation and none of the 11 graduate programs involve accreditation.

If the campus decides to undergo conversion to semesters, the programs not involved in accreditation could be delayed in their schedule for program review. Of the 38 UG programs, 20 UG programs could be delayed and 11 G programs could be delayed. The 18 UG accredited programs would need to continue the program review process as shown on the schedule in the table below.

<table>
<thead>
<tr>
<th>Year</th>
<th>Cohort</th>
<th>Undergraduate Programs Total (# accredited)</th>
<th>Graduate Programs Other</th>
<th>Notes</th>
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<tbody>
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<td>Completing or completed</td>
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<td></td>
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<tr>
<td></td>
<td>2010-12</td>
<td>11 (2 accr.)</td>
<td>3 (1)</td>
<td></td>
</tr>
<tr>
<td>midpoint</td>
<td>2011-13</td>
<td>7 (4 completing)</td>
<td>15 (5)</td>
<td>Scheduled to complete this AY</td>
</tr>
<tr>
<td>current</td>
<td>2012-14</td>
<td>3 (2 accr.)</td>
<td>2</td>
<td>Began PR this AY</td>
</tr>
<tr>
<td>subtotals</td>
<td></td>
<td>27 undergrad (10 accr.)</td>
<td>29 grad (6 accr.)</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2013-15</td>
<td>18 (16 accr.) + General Education</td>
<td>1 + Dietetic Internship</td>
<td>Will begin PR net AY</td>
</tr>
<tr>
<td>2</td>
<td>2014-16</td>
<td>7 (1 accr.)</td>
<td>3</td>
<td>future</td>
</tr>
<tr>
<td>3</td>
<td>2015-17</td>
<td>5 (0 accr.)</td>
<td>5</td>
<td>future</td>
</tr>
<tr>
<td>4</td>
<td>2016-18</td>
<td>7 (1 accr.)</td>
<td>2</td>
<td>future</td>
</tr>
<tr>
<td>5</td>
<td>2017-19</td>
<td>1 (new)</td>
<td></td>
<td>future</td>
</tr>
<tr>
<td>subtotals</td>
<td></td>
<td>38 undergrad (18 accr.)</td>
<td>11 grad programs</td>
<td></td>
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<tr>
<td>Totals</td>
<td></td>
<td>64 (28 accr.)</td>
<td>31</td>
<td></td>
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</tbody>
</table>
Preliminary Ideas For Improving Graduation Rates at Cal Poly

Prepared by Helen Bailey, David Clague, and Cem Sunata

At the first meeting of the Semester Review Task Force, President Armstrong gave the group a verbal charge: if the Task Force came back with a recommendation to remain on quarters, he requested a plan for increasing graduation rates.

Given the timetable in which the Task Force operated, and the conclusion, only recently, to recommend remaining on quarters, there was not sufficient time to form a comprehensive or strategic plan.

This document therefore represents some preliminary ideas, based on consultations undertaken by some members of the task force with department chairs; and on ideas already under discussion, review, and/or implementation by various campus groups, including, but not limited to, the Office of the Provost, the Office of the Registrar, and advisors.

It is by no means exhaustive, nor is it equally weighted: some of the ideas outlined below are more likely to increase graduation rates than others. Nor have all ideas been thoroughly vetted or thought through. Nor does this document address some factors that appear to negatively impact our current graduation rates, but which form an important part of the Cal Poly educational experience (e.g., labs, co-ops, internships, etc.).

“What impacts retention and graduation rates remains inconclusive. But we can attest that a complex combination of interwoven factors influence student success.”¹ Consistent with the complexity of this equation, the following suggestions are grouped within broad categories, but there is naturally overlap among categories.

Academic Success Center

This center, envisioned for implementation in Fall 2013, will serve many functions related to student success and ultimately, it is hoped, increase graduation rates:

- Provide proactive, “intrusive” advising, rather than merely reactive
- Ensure that consistent messages and guidance reach students
- A resource for referrals to campus entities (e.g., Disability Resource Center, Health Professions Advisors, Career Services)
- A starting point of referrals for students considering major changes
- Ensure students have the foundational academic skills necessary to be successful (25/35, study skills and time management seminars, etc.)
- A transparent and easily accessed conduit for key policies, such as Expected Academic Progress, Academic Probation and Disqualification, etc.
- Help students understand important timelines, navigate academic “bureaucracy,” etc.
Advising/Logistics of Progress–to-Degree

Better market the degree audit to students: Introduction to audit in all freshman intro classes or during WOW Academic Day, so that students fully understand this important tool in taking responsibility for their progress-to-degree. Use targeted marketing campaigns, including clubs, residence halls, social media, etc. Evaluations could be at the forefront of such efforts, but departments and other advising entities should be involved as well.

UDirect will assist students in planning needed courses and further help prevent inadvertent non-attention to degree requirements. It is a unique combination of four-year degree flowcharts and the degree audit, providing students yet another tool to assist in taking responsibility for their own progress-to-degree.

Establish a clear delineation of responsibilities between faculty and professional advisors, so that students know where to receive the most expert help, that advising efforts are not duplicated, and that subject matter expertise is respected. Students should have the fullest, richest advising experience possible and should feel engaged with their chosen major. For example, advising on GE matters having to do with transfer or test credit should be exclusively reserved for professional advisors and/or Evaluations.

Implement an Advisor Notes capability to enable advisors to share relevant notes with one another. This fosters collaboration among advisors, ensures a consistent and transparent advising experience for students, and builds in accountability for students.

Optimizing Progress-to-Degree Efforts

Implement the Office of the Registrar’s proposed initiative to proactively apply to graduate on students’ behalf: this would eliminate students’ not knowing that they need to apply to graduate. Notifying them when they are at 75-80% of their degree progress allows for optimal planning toward timely graduation.

Monitor and enforce Expected Academic Progress policy, to ensure timely progress-to-degree. Enforcement includes not allowing change of major if it will result in non-compliance with EAP.

Consider admitting to zones or clusters rather than majors; this admissions policy would facilitate progress-to-degree by reducing the chance of “wasted” units. Corollary proposal: in Engineering programs, have a “common currency” or “core” with regard to freshman and sophomore courses so as not to delay students who change majors.

A more comprehensive statistical look at trends affecting student success at Cal Poly, using the Data Warehouse and Administrative Dashboards. Such trends include: change of major, Academic Probation and Disqualification, 1st- and 2nd-year retention rates, and high fail-rate classes.
Intrusive and Proactive Efforts to Enhance Student Success

“match.com”-style website for matching tutors with students in need

Early Alert System for students experiencing academic difficulty: to seek, or be proactively offered, appropriate help. There are early alert software programs available. Faculty buy-in would be necessary to feed the data to the software. Note: CSM has begun such an early alert, without much in the way of software by increasing communication between the CSM faculty and dean’s office regarding “at-risk” students. Bringing in technology would enable a broader implementation.

Expand the successful Freshman Success program to a more robust Sophomore Success program, by implementing and furthering the goals identified by the Professional Learning Community formed in 2010-11 to assess retention of students after sophomore year. This is particularly relevant, as we lose more students after the sophomore year than the freshman.

Campus Community

President Armstrong has suggested on-campus housing for more students, so that they feel even stronger ties to the campus community, which would likely help retention rates.

President Armstrong has proposed ideas for minority students to have an even stronger sense of belonging, including residence halls. The Executive Director of Diversity and Inclusivity should have such a charge be one of her/his prime directives.

Curriculum and Access to Classes (Interrelated)

UDirect implementation is designed to provide demand data to departments to better schedule degree-applicable course offerings each term where course supply more closely meets demand. This is a bold initiative, in which Cal Poly is very much in the vanguard. Departments need to use UDirect data to accommodate students, particularly in classes that, if not available, could hold up progress to degree.

Re-examine campus-wide program curricula to ensure that essential courses are included; this includes optimization of Major courses and GE & Breadth courses. Major curricula should be designed to ensure that students are prepared for employment, professional licensure and/or graduate education. Cal Poly faculty are very responsive to industry and in turn industry is very responsive to Cal Poly, Cal Poly faculty, and Cal Poly graduates. History clearly supports that we have unique, high quality graduates. For programs where degree unit requirements impact graduation rates, curriculum needs to be optimized without compromising student success. It should be noted that great strides are already being made in this area with changes to the 2013-15 catalog, but there is still room for improvement.
Currently, in some programs, students’ degrees do not closely resemble the curriculum published in the catalog, due to individual substitutions which represent “rule by exception. The proposed electronic workflow of substitution forms will allow more in-depth, systematic analysis of such substitutions, aid communication among departments, and reduce mechanical barriers to progress-to-degree. Departments will need to use this data intentionally as they plan enrollment and course offerings; if offering published requirements is challenging, then a slightly less rigid approach to curricular pathways should be considered.

Departments have a responsibility to offer classes required for a concentration on a regular basis. If they cannot do so, they should consider reconfiguring the concentration to allow for more flexibility (i.e., a “choose any three of these five classes” approach), which would maintain a solid concentration experience while eliminating bottlenecks and student confusion, or consider eliminating the concentration.

A culture change is needed for some students, who admit that they will not sign up for a 7:00 am class, Friday class, or class with an unpopular professor, even if they know this will delay their graduation by one quarter or more. This is a difficult issue, but a shift in mentality needs to occur to maximize resource utilization and to clear the path for other students. UDirect will bring needed transparency to this arena, providing faculty the exact demand per term, and making students responsible for taking the courses as specified in the demand data.

Thorough review of prerequisites by programs with long chains of prereqs, to ensure appropriate balance between academic success and impediments to progress-to-degree. Students who transfer, change majors, fail a class, take a desirable industry co-op or internship, or study abroad can be negatively impacted by such complex prerequisites, though some may be necessary to achieve program learning outcomes and quality of Cal Poly degree.

Faculty need to listen to professional advisors who report pockets of their curricula that students find confusing. While there are not many of these, they are identifiable and, with slight adjustments, could be clarified for students without sacrifice of program goals.

**Hands-on Laboratories and Class Projects**
Recommendation: Optimize the numbers of freshman admits and associated allocation of resources with hands-on learning activities per college. This would require each college to perform a “data-driven” analysis and optimization of program enrollments, curriculum requirements, resource allocations, student success needs, and actionable, data-based feedback to the Provost.

Two hallmarks of the Cal Poly approach to “learning by doing” are the inclusion of hands-on laboratories and project-based learning activities in many (almost all courses in the technology-based Majors) courses including required courses. Owing to resource limitations, i.e., facilities, faculty and supplies, course enrollments are limited, e.g., many of these classes have <30 seats per section. As a consequence, depending on program populations, not all students who
require or desire a particular course can be accommodated, which can adversely affect student success and graduation rates.

**Blended Programs**

We need to recognize the impact on four-year or six-year graduation rates of Blended (4+1) programs. Between 5 and 15% of CENG’s senior class, on average, enter a 4+1 program, naturally extending time-to-degree for the Bachelor’s.

Suggestions include simple accounting changes: devise a different formula for calculating graduation rates for such students, in order to reach a more realistic figure.

Other program suggestions: many 4+1 students encounter difficulty finishing the Masters’ degree portion of the program, rendering them with neither a Bachelor’s nor a Master’s degree. Reasons include, but are not limited to, proprietary research and other difficulties associated with completing a Masters’ thesis. The new Director of Graduate Education should undertake a thorough and systematic analysis of ways that 4+1 students can emerge with, ideally, both degrees, but at a minimum, a bachelor’s degree in a timely fashion. Graduation rates, even at 6+ years, are far from optimal for such students.

A more dramatic suggestion is to eliminate 4+1 programs and require students to graduate with a BS, and reapply to a MS program.

Advising of 4+1 students presents challenges: due to complex “double counting” of units, and to their liminal status, they belong fully neither to the grad program nor to the undergraduate. The CENG Advising Center offers assistance as best it can, but without a degree audit for such students, this is challenging. Many 4+1 students rely on grad coordinators for all degree advising; grad coordinators are not, nor should be expected to be, experts on undergraduate degree requirements, some of which can go unnoticed and present issues quite late in the career.

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2. Statistical analysis of the Freshman Success program indicates a jump in GPA from 1.6 at the end of FTF’s first quarter to 2.6 at the end of their winter quarter, for participating students.
QUARTER TO SEMESTER TASK FORCE REPORT
Implications on Fundraising and University Campaign
November 2012

Prepared by Adam Jarman

It is difficult to predict the impact a calendar conversion may have on fundraising productivity, but University Advancement suggests there are four potential scenarios:

A conversion has no impact;
A conversion spurs curricular and programmatic innovation across campus, and in so doing, creates an environment that inspires donors;
A conversion creates a feeling among alumni that the University has experienced too much change and fundraising suffers from that emotional detachment; or
The cost of a conversion is seen by external constituents to be significant, reducing the ability to demonstrate the need for private support on campus.

To mitigate any potential negative impact of a conversion, University Advancement recommends that attention be focused on communication regarding the decision and the conversion process. It will be critical to alleviate any misconception that such a change will create opportunities for a dilution of Learn by Doing, an important part of the Cal Poly brand as demonstrated by several recent studies:

Key advantages of Cal Poly across all studied constituent groups were: Hands-on learning, real-world preparation, quality of faculty and teaching, and the strength of the programs.\(^1\) Forty-five percent of alumni respondents stated that Learn by Doing is the greatest advantage of Cal Poly and 90% said learn by doing “perfectly describes” Cal Poly.

A campaign feasibility study of more than 50 of Cal Poly’s most capable prospective donors revealed great commitment to the University among this group. These attached prospective donors are also leery of change. For example, multiple respondents stated that an over-emphasis on capital building projects during the campaign would create too much change in the physical character of the campus and be an undesirable outcome.\(^2\)

Diluting emotional detachment to Cal Poly is perhaps a larger issue for alumni who are not currently engaged by faculty, academic leaders and development officers. It is much

\(^1\) Stamats educational marketing consultants were retained to study Cal Poly’s brand. This information was reported in October 2009 and is the result a Web-based survey with 3,227 respondents over all constituency groups.

\(^2\) Feasibility study conducted by Marts & Lundy philanthropic consultants in fall of 2011 through winter 2012.
easier to maintain a strong attachment with alumni and friends who are actively engaged in the life of the University than with those who do not have such a personal connection. The upcoming comprehensive campaign – and the next campaign – will rely heavily on the University’s ability to engage currently un-engaged alumni.

A related concern for discussion is the amount of time academic leaders and faculty will spend revising curricula, which may decrease the time available to be actively engaged in fundraising activities, which many faculty often find difficult to allocate time towards due to other demands.
November 28, 2012

Semester Review Task Force

Topic: Impacts on lab space if Cal Poly converts from a quarter to semester term campus.

Prepared by Lorlie Leetham

The charge to the Semester Review Task Force includes identification of campus impacts if the campus were to convert from quarters to semesters. Early discussions on this topic revealed that current available lab facilities and other lab resources are an area that could be impacted by a conversion because scheduling in high demand labs is, in many cases, already at maximum capacity. Cal Poly programs have historically included heavy use of laboratory classes and capacity of lab facilities and resources can vary depending on the type of lab. Variables affecting capacity of a particular lab section can include such things as daylight hours (primarily in CAFES labs), equipment requirements, and room space. Some campuses evaluating quarter-to-semester conversion have reported there would have to be 50% more labs scheduled in many fields if a semester calendar was adopted. A 50% increase can be derived by taking a 24 seat lab space, which could accommodate 72 students over the academic year for one course section each quarter, and then splitting those same 72 students into a 36-per-semester lab course requirement. This assumes no other changes are made. How Cal Poly will accommodate its lab courses if it converts to semesters is a concern and a consideration, and the answer to this question is highly dependent on the outcome of the curriculum conversion.

Most labs are scheduled in three-hour blocks Monday through Friday, with a typical schedule pattern being 8:00 am to 11:00 am or 9:00 am to noon, noon to 3:00 pm, and 3:00 pm to 6:00 pm. However, there are many exceptions to this with some labs scheduled in the evenings and, in a few cases, weekends. Preliminary discussions indicate that the three-hour period is critical for the beneficial teaching and hands-on experience that lab exposure provides to the student and that semester labs are also typically configured on a three-hour-per-class basis. Lab space not currently utilized for classes is often made available for research and other scholarly work by faculty. In addition, students and advisors involved in various Instructionally Related Activities programs also make use of these spaces for their activities. An increase in lab space demand for classes is likely to negatively impact the availability of this space for these other activities.

Assuming that departments and programs will continue to make heavy use of the lab component in their semester curriculum, that three-hour blocks for labs will continue under a semester system, and that Cal Poly currently maximizes use of lab space in both scheduling of lab class time and enrollment numbers in the labs, there are a variety of issues to contend with, not all of which are in scope for this specific space review. The following are not in scope for this section of the report:
- A 1-unit lab translates to 30 hours of lab time in a quarter schedule (10 weeks \( \times \) 3 hours per week). Under a semester schedule, there would be 45 hours of lab time, requiring review and determination of how this might impact the lab curriculum.
- A 3 hour lab typically generates 2 WTU's for faculty, with some exceptions. The translation of this to semesters if there is a 50% increase in lab hours (from 30 to 45) will need to be addressed.

**Options to deal with lab capacity problems:**

Current lab capacity for Cal Poly is approximately 6,300 lab spaces per term, not including those that take place outdoors only. A 50% worst case scenario increase would require expansion to accommodate 9,450 spaces. Since current state funding for lab and classroom space is based on student FTE, and a conversion from quarter to semester does not in of itself generate an increase in student FTE, it is not realistic to assume that the state would provide additional funding for lab space.

Alternatives to address the facilities issues include:

1. Reduce contact hours in labs through use of alternative technologies so that when spread out over 15 weeks, 30 hours of lab time is still achieved while freeing up additional hours each week for additional students who need to be accommodated over two semesters.
2. Regularly schedule all service and other impacted lab spaces to allow for up to 50% additional lab class offerings each semester. As mentioned earlier, expansion of currently scheduled lab class hours would negatively impact the use of lab space for research and Instructionally Related Activities.
3. In conjunction with the curriculum transformation process, reduce the number of labs offered/required.
4. Invest in the construction or conversion of existing rooms to accommodate additional lab space requirements using private dollars generated from fundraising. Cost of new lab space varies, dependent on program and class level. Using the CSU cost guide for facilities construction, the average cost for new lab space, including equipment, can range from $385 to $542 per square foot, or $577,707 to $1.7 million, for a complete lab with a capacity of 16 (upper division) to 24 (lower division) seats. A 50% expansion scenario using 24 seat capacity labs only would require nine new labs with 15 scheduled lab sessions per week, costing an estimated $10.3 million to build. In addition to funding construction costs, funding sources for operations and maintenance of the new space would also need to be identified. These costs can include custodial services, trade support, utilities, lab techs and regulatory inspections, among others.
5. A combination of options 1 through 3, or 1 through 4 if funding for additional space was made available.
In order to gather information on faculty teaching assignments, the AVPs from CSU campuses on the semester system were informally polled. The individuals polled provided an estimate of the typical teaching assignments based on their understanding of “typical” work assignments; this information was not based on statistical data collected from their campus information systems.

All campuses reported that they do not have a universal standard, and they provided many examples of a broad range of classes, modes of instruction and formats that vary dramatically program to program and college to college. In addition, most indicated that faculty members also have release time and assigned time that is not accounted for in what they report as a “typical” teaching assignment.

From the responses, it is clear that there is not one universal semester system class configuration. When asked for the most common class size, most semester campuses identified three WTU classes, but a few campuses indicated that their typical class size is four WTUs. The semester campuses indicated that tenured and tenure-track faculty typically teach three or four - four WTU classes. Semester campuses that utilize four WTU courses reported that faculty members typically teach three classes per semester. Many reported that work assignment for lecturers often consists of direct teaching assignments, while some campuses provide some assigned time for additional duties.

The number of classes taught in isolation is one of many factors that affect a faculty member’s workload. Other factors that should be considered to assess the overall workload include: number of preps, number of students enrolled in courses, assigned time, release time, involvement in scholarly activities, service activities, use of graders, in-lab and class instructional student assistants, assigned time for large classes, mode of instruction, method of assessment, etc. All of these factors, in combination with curricular and student needs, must be considered together to best determine appropriate assignments.
### Semester CSU Campuses Teaching Assignment Summary

<table>
<thead>
<tr>
<th>Campus</th>
<th>Typical Number of WTUs per Class</th>
<th>Number of Classes per Semester for Tenure Track Faculty</th>
<th>Number of Classes per Semester for Lecturers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channel Islands</td>
<td>Typically 3 WTUs</td>
<td>3-4 classes</td>
<td>5 classes</td>
</tr>
<tr>
<td>Chico</td>
<td>Typically 3 WTUs</td>
<td>4 classes</td>
<td>5 classes</td>
</tr>
<tr>
<td>Dominguez Hills</td>
<td>Typically 3 WTUs</td>
<td>4 classes</td>
<td>5 classes</td>
</tr>
<tr>
<td>Fresno</td>
<td>Typically 3 WTUs</td>
<td>4 classes (campus avg. ~10 WTU/semester)</td>
<td>5 classes often with assigned time to bring load to ~15 WTU</td>
</tr>
<tr>
<td>Fullerton</td>
<td>Typically 3 WTUs</td>
<td>up to 4 classes, few teach 4</td>
<td>up to 5 classes, many teach 4</td>
</tr>
<tr>
<td>Humboldt</td>
<td>Upper Div. 4 WTU, Lover Div. 3 WTU</td>
<td>3-4 Classes 12 WTU/Semester, some get assigned time</td>
<td>4-5 Classes</td>
</tr>
<tr>
<td>Long Beach</td>
<td>Typically 3 WTUs Science 4 WTUs</td>
<td>3-4 classes (9-12 WTUs direct instruction)</td>
<td>5 classes, 15 WTUs</td>
</tr>
<tr>
<td>Maritime</td>
<td>Typically 3 WTUs</td>
<td>4 classes, some teach less</td>
<td>5 classes</td>
</tr>
<tr>
<td>Monterey Bay</td>
<td>Originally 4 WTUs but now more mixed</td>
<td>3 classes (12 WTUs)</td>
<td>4 classes, 15 WTUs</td>
</tr>
<tr>
<td>Northridge</td>
<td>Typically 3 WTUs but varies by major</td>
<td>3-4 classes (12 WTUs)</td>
<td>5 classes, 15 WTUs</td>
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<tr>
<td>San Diego</td>
<td>Typically 3 WTUs</td>
<td>Some colleges 4 classes, others typically 3 classes, 2 classes if faculty buy out</td>
<td>5 classes, 15 WTUs</td>
</tr>
<tr>
<td>Sacramento</td>
<td>Typically 3 WTUs</td>
<td>Typically 4 classes, Business three 3 WTU classes, some assigned time</td>
<td>5 classes (with some exceptions)</td>
</tr>
<tr>
<td>San Francisco</td>
<td>Typically 3 WTUs</td>
<td>3 classes @ 3 WTUs, 3 WTU for research, but increased class sizes</td>
<td>4-5 classes, 15 WTUs</td>
</tr>
<tr>
<td>San Jose</td>
<td>Typically 3 WTUs</td>
<td>Typically 4 classes but many variations</td>
<td>5 classes</td>
</tr>
<tr>
<td>San Marcos</td>
<td>Typically 3 WTUs</td>
<td>3-4 classes</td>
<td>5 classes</td>
</tr>
<tr>
<td>Sonoma</td>
<td>At least 50% of classes are 4 WTUs, 3 WTU classes also common</td>
<td>Typical load is three 4 WTU classes</td>
<td>4 classes</td>
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</table>

- Typical load includes a mix of 3-4 classes with occasional adjustments based on specific needs.
Graduation Rates Under Semesters and Quarters

*AN ANALYSIS OF IPEDs GRADUATION DATA*

Prepared by Andrew Schaffner

**Abstract:** After adjusting for the other variables such as SAT scores, institution size, institutional control, and student:faculty ratios, there is no evidence for a difference in mean 4-year, 5-year, or 6-year graduation rates among the two calendar systems (p-value = 0.8018, 0.3823, 0.2288).

Selected Institutions: 2,680 public and private institutions offering bachelor’s degrees.

**Basic Summary Characteristics for selected variables**

The following are basic summary characteristics of the 2,680 bachelors institutions in the IPEDs database with graduation rate data for 2010.

### CALENDAR

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<td>Four-one-four plan</td>
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INSTITUTIONAL CONTROL

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<td>Private for-profit</td>
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<td>0.23246</td>
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<tr>
<td>Private not-for-profit (no religious affiliation)</td>
<td>578</td>
<td>0.21567</td>
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<tr>
<td>Private not-for-profit (religious affiliation)</td>
<td>764</td>
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<tr>
<td>Public</td>
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<td>0.26679</td>
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<tr>
<td>Total</td>
<td>2680</td>
<td>1.00000</td>
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4-YEAR GRADUATION RATE (2010)
Cal Poly was 26% according to IPEDs.

Summary Statistics

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<th>Value</th>
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<td>Std Err Mean</td>
<td>0.521327</td>
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<tr>
<td>Upper 95% Mean</td>
<td>33.184018</td>
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<tr>
<td>Lower 95% Mean</td>
<td>31.13929</td>
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<td>N</td>
<td>2128</td>
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</table>
5-YEAR GRADUATION RATE
Cal Poly was 63% according to IPEDs.

Summary Statistics
Mean 43.175752
Std Dev 24.218022
Std Err Mean 0.5249922
Upper 95% Mean 44.205304
Lower 95% Mean 42.1462
N 2128

6-YEAR GRADUATION RATE
Cal Poly was 73% according to IPEDs.

Summary Statistics
Mean 46.903665
Std Dev 23.404913
Std Err Mean 0.5073658
Upper 95% Mean 47.89865
Lower 95% Mean 45.90868
N 2128
ADMISSION RATE (SELECTIVITY 2010)
Cal Poly was 37% according to IPEDs.

Summary Statistics
Mean 64.007365
Std Dev 20.572873
Std Err Mean 0.4718499
Upper 95% Mean 64.932763
Lower 95% Mean 63.081966
N 1901

STUDENT FACULTY RATIO
Cal Poly was 22:1 according to IPDES.

Summary Statistics
Mean 16.072596
Std Dev 8.1514452
Std Err Mean 0.1589184
Upper 95% Mean 16.384214
Lower 95% Mean 15.760978
N 2631
Comparing Semester and Quarter Schools

Below we compare calendar systems across different institutional funding control models. Note that about 20% (460/2286) of the institutions studied are on quarter, but among public institutions, there only 8%. Interestingly, 72% of private (for-profit) institutions are on quarters.

<table>
<thead>
<tr>
<th></th>
<th>Quarter</th>
<th>Semester</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Private for-profit</strong></td>
<td>329</td>
<td>129</td>
<td>458</td>
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<tr>
<td></td>
<td>71.52%</td>
<td>7.06%</td>
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<tr>
<td></td>
<td>71.83%</td>
<td>28.17%</td>
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<tr>
<td><strong>Private not-for-profit (no religious affiliation)</strong></td>
<td>60</td>
<td>444</td>
<td>504</td>
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<tr>
<td></td>
<td>13.04%</td>
<td>24.32%</td>
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<td></td>
<td>11.90%</td>
<td>88.10%</td>
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<tr>
<td><strong>Private not-for-profit (religious affiliation)</strong></td>
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<td>648</td>
<td>665</td>
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<td></td>
<td>3.70%</td>
<td>35.49%</td>
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<tr>
<td></td>
<td>2.56%</td>
<td>97.44%</td>
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<tr>
<td><strong>Public</strong></td>
<td>54</td>
<td>605</td>
<td>659</td>
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<tr>
<td></td>
<td>11.74%</td>
<td>33.13%</td>
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<td>8.19%</td>
<td>91.81%</td>
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<tr>
<td>Public</td>
<td>54</td>
<td>605</td>
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Naïve Comparisons

In all examples below, a naïve analysis (not adjusting for other factors) would show that the mean 4, 5, and 6 year graduation rates are statistically significantly higher (p-value < 0.0001) at semester calendar schools. These comparisons are included for reference only as a naïve analysis of raw data in the IPEDs database and should not be considered as meaningful comparisons of graduation rates between the calendar systems.

4-Year Graduation Rate

<table>
<thead>
<tr>
<th>Level</th>
<th>Number</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Std Err Mean</th>
<th>Lower 95%</th>
<th>Upper 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quarter</td>
<td>245</td>
<td>25.7755</td>
<td>25.7954</td>
<td>1.6480</td>
<td>22.529</td>
<td>29.022</td>
</tr>
<tr>
<td>Semester</td>
<td>1615</td>
<td>32.9158</td>
<td>22.9646</td>
<td>0.5714</td>
<td>31.795</td>
<td>34.037</td>
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</table>

Two-sample t-test p-value < 0.0001
### 5-year Graduation Rate

<table>
<thead>
<tr>
<th>Level</th>
<th>Number</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Std Err Mean</th>
<th>Lower 95%</th>
<th>Upper 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quarter</td>
<td>245</td>
<td>32.7388</td>
<td>27.8074</td>
<td>1.7765</td>
<td>29.239</td>
<td>36.238</td>
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<tr>
<td>Semester</td>
<td>1615</td>
<td>45.0885</td>
<td>22.4687</td>
<td>0.5591</td>
<td>43.992</td>
<td>46.185</td>
</tr>
</tbody>
</table>

Two-sample t-test p-value < 0.0001

### 6-year Graduation Rate

<table>
<thead>
<tr>
<th>Level</th>
<th>Number</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Std Err Mean</th>
<th>Lower 95%</th>
<th>Upper 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quarter</td>
<td>245</td>
<td>36.3306</td>
<td>27.1859</td>
<td>1.7368</td>
<td>32.909</td>
<td>39.752</td>
</tr>
<tr>
<td>Semester</td>
<td>1615</td>
<td>48.9703</td>
<td>21.5225</td>
<td>0.5356</td>
<td>47.920</td>
<td>50.021</td>
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Two-sample t-test p-value < 0.0001
Comparisons accounting for other factors

The following models compare graduation rates under the two calendar system after adjusting for institution control (e.g., public/private), student:faculty ratio, selectivity (e.g., admission percentage), size (2010 Full-time equivalent on 12 month calendar), and SAT scores (reading and math). These models explain approximately 63% of the total variation in graduation rates among institutions studied.

After adjusting for the other variables, there is no evidence for a difference in mean 4-year, 5-year, or 6-year graduation rates among the two calendar systems (p-value = 0.8018, 0.3823, 0.2288).

While not statistically significant, after adjusting for the other variables in the models, the 4, 5 and 6-year mean graduation rates are actually higher under the quarter calendar by 0.46, 1.52, and 1.94 percentage points, on average, when compared to semesters. In non-technical terms, when comparing similar schools with respect to the variables in the models, those on the quarter system tended to have higher graduation rates than those on semesters, though the difference cannot be ruled out to be due to chance variation.

Other factors worth noting that are statistically significantly associated with graduation rates (controlling for other variables in the model) are student to faculty ratio (higher ratio is associated with lower rate, p-value < 0.0001), and SAT (math and reading) scores (better students are associated with higher graduation rates).

The impact of student:faculty ratio is quite profound. With respect to 4 and 5 year graduation rates, each additional one student increase in the student faculty ratio is associated with about a 0.6 percentage point drop in the graduation rate. With respect to 6 year graduation rate, each additional one student increase is associated with about a 0.45 percentage point drop in the graduation rate. These estimates assume the other variables in the model remain fixed. While causality cannot be inferred from this observational data, this information is suggestive that large gains could be made to graduation rates by improving the student:faculty ratio. Cal Poly’s student:faculty ratio is 22:1 compared to 18.2:1, the mean for public institutions.

More carefully looking at SAT scores it appears that the 4-year graduation rate is most significantly impacted by the weaker students in the university (25\textsuperscript{th} percentile scores), whereas the 5 and 6 year rates are impacted more generally with the top math scorers (75\textsuperscript{th} percentile) having an important role. In all, the stronger the students SAT scores, the better the graduation rate, as expected.

The black dots in the plots below represent where Cal Poly falls relative to these other institutions. After adjusting for the other factors in the model, we are below average in our 4-year graduation rates, but above average for our 5 and 6 year rates.
4-YEAR GRADUATION RATE

Parameter Estimates

| Term                                      | Estimate  | Std Error | t Ratio | Prob>|t| |
|-------------------------------------------|-----------|-----------|---------|------|
| Intercept                                 | -50.80336 | 5.682649  | -8.94   | <.0001* |
| calendar[Quarter]                         | 0.2344826 | 0.933754  | 0.25    | 0.8018 |
| control[Private for-profit]               | 8.7894176 | 3.352038  | 2.62    | 0.0089* |
| control[Private not-for-profit (no religious affiliation)] | 0.5538162 | 1.360618  | 0.41    | 0.6841 |
| control[Private not-for-profit (religious affiliation)] | 1.7275026 | 1.266846  | 1.36    | 0.1730 |
| s/f ratio                                 | -0.62778  | 0.108838  | -5.77   | <.0001* |
| percent admit 2010                        | 0.0298253 | 0.023468  | 1.27    | 0.2040 |
| 2010-11 FTE (12 month)                    | 4.7013e-5 | 5.928e-5  | 0.79    | 0.4279 |
| sat reading 25th                          | 0.0937746 | 0.019833  | 4.73    | <.0001* |
| sat reading 75th                          | 0.0131793 | 0.017479  | 0.75    | 0.4510 |
| sat math 25th                             | 0.0972261 | 0.019629  | 4.95    | <.0001* |
| sat math 75th                             | 0.0021273 | 0.019359  | 0.11    | 0.9125 |

Effect Tests

<table>
<thead>
<tr>
<th>Source</th>
<th>Nparm</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>F Ratio</th>
<th>Prob &gt; F</th>
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<td>1</td>
<td>2.075</td>
<td>0.0121</td>
<td>0.9125</td>
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</tbody>
</table>
## 5-Year Graduation Rate

### Parameter Estimates

| Term                                                                 | Estimate  | Std Error | t Ratio | Prob>|t| |
|---------------------------------------------------------------------|-----------|-----------|---------|------|
| Intercept                                                           | -41.95223 | 5.290413  | 7.93    | <.0001* |
| calendar[Quarter]                                                  | 0.7597359 | 0.869303  | 0.87    | 0.3823 |
| control[Private for-profit]                                        | 5.0675043 | 3.120669  | 1.62    | 0.1047 |
| control[Private not-for-profit (no religious affiliation)]         | 0.244859  | 1.266704  | 0.19    | 0.8468 |
| control[Private not-for-profit (religious affiliation)]            | 1.2147376 | 1.179404  | 1.03    | 0.3033 |
| s/f ratio                                                          | -0.623341 | 0.101326  | -6.15   | <.0001* |
| percent admit 2010                                                 | 0.0657618 | 0.021848  | 3.01    | 0.0027* |
| 2010-11 FTE (12 month)                                             | 0.0002506 | 5.519e-5  | 4.54    | <.0001* |
| sat reading 25th                                                  | 0.0811439 | 0.018464  | 4.39    | <.0001* |
| sat reading 75th                                                  | 0.007827  | 0.016272  | -0.48   | 0.6306 |
| sat math 25th                                                     | 0.0843163 | 0.018274  | 4.61    | <.0001* |
| sat math 75th                                                     | 0.0423073 | 0.018023  | 2.35    | 0.0191* |

### Effect Tests

<table>
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<tr>
<th>Source</th>
<th>Nparm</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>F Ratio</th>
<th>Prob &gt; F</th>
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</table>
6-YEAR GRADUATION RATE

Parameter Estimates

| Term                                           | Estimate | Std Error | t Ratio | Prob>|t| |
|------------------------------------------------|----------|-----------|---------|-----|
| Intercept                                      | -37.88207| 4.90534   | -7.72   | <.0001* |
| calendar[Quarter]                              | 0.9705506| 0.80603   | 1.20    | 0.2288 |
| control[Private for-profit]                    | 4.5505122| 2.893528  | 1.57    | 0.1161 |
| control[Private not-for-profit (no religious affiliation)] | 0.4823417| 1.174505  | 0.41    | 0.6814 |
| control[Private not-for-profit (religious affiliation)] | 0.3692051| 1.09356   | 0.34    | 0.7357 |
| s/f ratio                                      | -0.447231| 0.093951  | -4.76   | <.0001* |
| percent admit 2010                             | 0.0568007| 0.020258  | 2.80    | 0.0051* |
| 2010-11 FTE (12 month)                         | 0.0002857| 5.117e-5  | 5.58    | <.0001* |
| sat reading 25th                               | 0.085127 | 0.01712   | 4.97    | <.0001* |
| sat reading 75th                               | -0.017722| 0.015088  | -1.17   | 0.2404 |
| sat math 25th                                  | 0.0664323| 0.016944  | 3.92    | <.0001* |
| sat math 75th                                  | 0.0587909| 0.016711  | 3.52    | 0.0005* |

Effect Tests

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Why Cal Poly’s Calendar System Does Not Impede Seamless Transfer

The CSU Presidential Task Force on Semester/Quarter Synergy was formed partially in response to SB 1440, and resulting concerns over optimal facilitation of the path to degree for junior transfers.

This document addresses why Cal Poly’s junior transfers are not disadvantaged (or, only very rarely) by transferring from semester-based schools.

The calculations:
Standard unit conversions for semester-to-quarter dictate multiplying by 1.5.

Example:
Freshman Composition, completed as 3 semester units, is rendered as 4.5 Cal Poly quarter units. Our Freshman Composition requirement is 4 quarter units.

Benefit:
The extra ½ unit is a neutral for some students, and can actually be a benefit for others: all excess units, from all transfer courses, count toward free electives, and thus can actually speed the path to graduation for students in majors with free electives.

Potential Issue:
The only real issue arises for sequenced courses, e.g., Calculus, Chemistry, Physics, if an entire year is required for the degree. If students complete only one semester of a sequence prior to transfer to a quarter-based CSU, they must complete two quarters after transfer, in order to achieve the required content, thus having to duplicate approximately half a quarter of material. This is an unnecessary expense and unit consumption.

Why Cal Poly Transfers Do Not Encounter This Issue:
Cal Poly is currently the only quarter-based CSU with program admissions criteria (our Transfer Selection Criteria, which are published at http://admissions.calpoly.edu/applicants/transfer/criteria.html). San Diego State and CSU Long Beach are the other campuses with program admissions criteria.

Transfer selection criteria ensure that our transfer students are prepared for their major courses; the goal is to make them as junior-ready as possible, so that they will both succeed academically in the rigors of their major, and make efficient and timely progress-to-degree. Transfer selection criteria serve to foster student success at Cal Poly, and also prevent the issue described above.

Example: Aerospace Engineering, the first program listed on the website, requires (requirements are in bold type) for admission not only our first year Calculus series (Math 141, 142, and 143), but also the fourth and fifth quarters of Calculus (Math 241 and 244). Aerospace also requires the entire year sequence of Physics (our 131, 132, and 133). The articulated equivalents are universally offered at community colleges.
It is not known if all Cal Poly programs that require a year’s sequence of such courses for the degree also require the transfer equivalents for admission, but if majors do not currently do so, they could strengthen their transfer selection criteria. Doing so helps make transfers even more junior-ready, and, in the case of majors with heavy lab components at the upper division level, requiring lower-division science sequences to be completed before transfer reduces student time in labs, thus fostering student success.

SB 1440 Review and Benefits:
We were able to say “yes” (or “similar”) to several SB 1440 Transfer Model Curricula by a slight adjustment to our Transfer Selection Criteria, in order to reduce to 90 the maximum units required after matriculation. In the process, we realized benefits for all our transfers, not only those with Star Act degrees. The SB 1440 review afforded departments an excellent opportunity to reassess our mechanism for admission and how it can assist not only in seamless transfer of credits initially but also in a cost-efficient and timely path to the bachelor’s degree.

Conclusion:
Our calendar system does not hold us back from admitting more transfer students. We receive many more transfer applicants than there are spaces. Our experience in Evaluations indicates that the majority of admitted students have completed the required major prep courses, and, if their community college offers them, the “desired” courses as well. Impediments to transfer are not the result of unit conversions or sequenced courses; rather, they stem from our specialized programs’ not having transfer equivalents offered at all community colleges.

Respectfully submitted,

Helen C. Bailey

PCS Representative, Semester Review Task Force
Assistant Registrar, Evaluations (Evaluations is charged with assessing all students’ transfer credit)
Member of Cal Poly’s Administrative SB 1440 Review Team
Advisors’ Perspective on Semester Conversion

Prepared by Helen Bailey

After thorough consultation with the Advising Executive Council and the Advising Success Work Team, meeting both separately and jointly, we (Helen Bailey and Kimi Ikeda) have identified answers to Charge #7 for the Task Force.

Representation on these groups includes academic advisors from the six colleges, as well as Athletics advisors, Career Services, Student Academic Services, Student Orientation Programs, Counseling Services, University Housing, faculty advisors, and Associate Deans.

Pros and cons viewed from the advising perspective:

Pros of semesters:
(Notes: Advisors acknowledge that a number of these pros are hypotheses and impressions of how things might work on semesters; they are not based on actual data, which cannot exist for Cal Poly)

Adviseors could engage more deeply in assessment, strategic planning, and in developmental, rather than merely prescriptive, advising, with less of the term taken up with registration matters.

- Remediation factor: the flowchart project undertaken by the Office of the Registrar, plus UDrefix, should reduce the need for stressful prescriptive advising sessions.
- Cautionary note: if add/drop and registration periods were extended on semesters, time savings would be reduced.
- Editor’s note: Cal Poly’s student-to-advisor ratio is higher than professional standards dictate; additional staffing would better enable advisors to engage both in adequate prescriptive and also developmental advising.

These developmental opportunities include an early alert system, which advisors believe would have better timing (feedback occurring earlier in the term, with more chances to redeem oneself, though this would be dependent on how faculty structure assignments, how many grading opportunities are offered).

Students might need to repeat fewer classes, due to more time to master the material. Students who repeat due to failing say they “got it” the second time, not the first. Possible flaw in this hypothesis: does the longer term structure itself make the difference, or the repetition of learning the material the second time?

Academically struggling new students would have an opportunity to do better with the expanded timeframe, no need to adjust to faster pace. Number affected: In Fall 2011, there were ~300 FTF’s on AP (<10% of FTF). Unknown: how many would fully exploit this opportunity.
Easier to catch up, if absences due to illness, bereavement, etc. Counterweight: if student does have to withdraw for the entire term, misses ½ of the year, rather than 1/3.

Longer time to implement Learn By Doing, and to learn a subject in depth (pace issues).

Ease of transfer/alignment with other schools: Summer term at some semester schools starts before we are through (though plenty of students do take classes in the summer).

Health professions’ students whose professional schools will not fully recognize quarter-unit classes (# of students hard to quantify; possibly ~100+/year who might be adversely affected).

Cal Poly students (very few) who permanently transfer to another CSU encounter unit deficiencies (most academically dismissed students return to Cal Poly).

Better alignment with internships: some companies work around Cal Poly’s schedule, but not all.

Less stressful for students (pace) might reduce mental health issues, but unknown quantity: how many such students would also struggle on semesters? Would they succeed better is unknown.

Textbook savings

January intersession offers appealing opportunities: greater flexibility, more opportunities to make up classes.

Advisors would have more time to get through AP/DQ cycles at the end of fall, and would eliminate the AP/DQ cycle at the end of winter.

**Pros of Quarters**

Greater variety of courses enhances students’ Cal Poly education; students believe this increases their marketability, and advisors wonder if this is a large part of what makes us special.

Professional school attendees feel well-prepared for the fast pace of such programs.

Final exams cover less material: better mastery.

Depending on the college and program, students carry one less class per term on quarters, possibly allowing for better focus, less dispersed energy due to shifting gears.
Registration cycles are a “carrot” for students to seek advising, at which time developmental opportunities can emerge. Three registration cycles provide more such opportunities.

Seniors spread out graduation check appointments between winter and spring quarters; on semesters, there would be only one final term to plan for, creating more strain on advising resources.

Quarters may be better for this generation of students. Counterweight: do they retain material?

Failing a class creates less of an obstacle to progress-to-degree; student is less behind, is less likely to encounter Financial Aid issues regarding Satisfactory Progress.

One more AP/DQ cycle gives students one last chance at the end of winter before disqualification.

Cons

Cons that are not embedded in the above answers are arrived at by essentially reversing the pros.

Considerations/Concerns

Facilities’ needs should be examined: additional?

Interest from advisors to follow examples of other institutions: engage with them, and mirror their implementation plans.

Conversion could provide opportunity to reevaluate what we do as advisors and give students a more consistent advising experience (eventually).

Policies would have to be changed (e.g., EAP, AP/DQ, Change of Major).

Significant effort and challenge involved in conversion comes at a time when campus morale is already low.

Resource drain would put a halt to advising initiatives, e.g., early alert system, advising software for appointments and advising notes, UDirect.

We would have to be flexible with students regarding curriculum transitions.

Advisors, both seasoned and new hires, would need extensive training on the new curriculum, and how it relates to the old curriculum.
Hiring more advisors to assist with the transition creates genuine space issues: advising centers currently do not have space to spare.

Excellent communication plan needed for students, advisors, and parents.

With fewer opportunities per year for students to get classes, the university would have to be extremely intentional on semesters to ensure that students can get classes they need (UDirect should help with this, eventually).

If class sizes were to increase, would negatively impact our brand.

NCAA compliance issues for student athletes who are in transition would have to be addressed.

Advisors stress the need for close collaboration with Evaluations, and believe adequate staffing in Evaluations is key to successful graduation for transitional students.

**Workforce Needs**

Ideally, advisors should work with faculty before curricula are solidified, to help identify transitional curricular issues, and to offer advisors’ perspective on transparency of the path to degree, and identify any possible stumbling blocks in the new curriculum.

Advisors must work with faculty after new curricula are solidified to formulate a template transition plan for each major for each year (freshman, sophomore, junior).

This need, plus the rush to graduate pre-conversion, fuel the need to hire new advisors one year in advance. Seasoned advisors would be busy working with faculty, and training themselves on the new curriculum; new advisors would need more extensive training than normal, since they would be advising on a curriculum in flux. Additionally, students would register in spring for the first fall on semesters, so “one year in advance” is actually closer to six months in advance.

Advisors need to meet with every transitional student, whether there is a working degree audit or not. An audit would tell students what they have credit for, but would not cover every scenario and could not replace the need for face-to-face advising. This would be particularly true in programs where true curricular transformation occurs. Group advising sessions are a possibility for some groups.

Parental concern would be very high (pocketbook issues); working within FERPA guidelines, advisors would be on the front lines of allaying parents’ fears.

**Additional Staffing Needs:**
Note: a robust degree audit for transitional students is in doubt at this time, and is “too early to call.” Forming any sense of certainty on that score would be premature. Advisor staffing calculations naturally vary depending on having an audit or not.

No audit available, or a weak audit:
Based on the formula of one hour per student (initial meeting, with follow-up meetings anticipated), also taking into account the need for consultation with faculty, and students graduating prior to go-live, the need for additional advisors is calculated:

7-8 advisors for five years’ duration (one year prior to go-live, four years post)
+8-9 advisors for 2.5 years’ duration (as transitional students graduate, need would reduce)

Estimated cost:
$4,125,000-$5,062,500

Robust audit:
Advisors calculate that 30-minute initial appointments are possible, effectively cutting the above figures almost in half.
Survey Explanation

Prepared by Gary Laver and Andrew Schaffner

The following highlights a few of the findings from the brief survey conducted by the Task Force. More detail is available in the appendix. It should be noted up front that a number of respondents indicated they did not know enough about the details of a potential conversion to communicate fully informed opinions.

Under a cover letter from President Armstrong, the survey was sent via e-mail to the following groups: 20925 current students, 1264 current faculty, 888 emeritus faculty, 1341 state staff, 75 ASI staff, and 227 Corporation staff. Duplicate affiliations were removed, resulting in 24425 unique recipients. In reporting their relationship to Cal Poly, 5824 people identified themselves as students, 661 as staff, and 686 as faculty for a total of 7171 responses (29.4% of the surveys sent). Regarding their college or area affiliation, 7166 respondents indicated as follows:

<table>
<thead>
<tr>
<th>Campus area</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Affairs</td>
<td>154</td>
<td>2.1</td>
</tr>
<tr>
<td>Administration and Finance</td>
<td>139</td>
<td>1.9</td>
</tr>
<tr>
<td>ASI</td>
<td>32</td>
<td>0.4</td>
</tr>
<tr>
<td>Student Affairs</td>
<td>95</td>
<td>1.3</td>
</tr>
<tr>
<td>University Advancement</td>
<td>22</td>
<td>0.3</td>
</tr>
<tr>
<td>Cal Poly Corporation</td>
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<td>0.7</td>
</tr>
<tr>
<td>CAED</td>
<td>568</td>
<td>7.9</td>
</tr>
<tr>
<td>CAFES</td>
<td>1154</td>
<td>16.1</td>
</tr>
<tr>
<td>CENG</td>
<td>2168</td>
<td>30.3</td>
</tr>
<tr>
<td>CLA</td>
<td>999</td>
<td>13.9</td>
</tr>
<tr>
<td>COSAM</td>
<td>1024</td>
<td>14.3</td>
</tr>
</tbody>
</table>
Based on campus workshops and forums involving students, staff, and faculty, eight frequently cited reasons for remaining on the quarter system and another eight for switching to the semester system were collected. From each of these two sets, survey respondents were asked to select the reasons most important to them. Across student, staff, and faculty groups, the most endorsed reasons for remaining on the quarter system were (in random order) more opportunity to enroll in impacted courses, a greater variety of courses and professors, and a pace that better prepares students for their professions. The most endorsed reasons for switching to semesters (again in random order) were a less stressful pace, increased depth of material and time for retention, and one fewer administrative cycle per year. For their part, students also felt semesters would facilitate off-campus internships and extra-mural activities.

The survey included an item concerning one’s overall opinion about switching to semesters. Of the 6612 respondents to this item, 74.2% either opposed or strongly opposed a switch to semesters, whereas 13.9% favored or strongly favored a switch.

<table>
<thead>
<tr>
<th>Overall Opinion</th>
<th>Count</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
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<td>6.1</td>
</tr>
<tr>
<td>In Favor</td>
<td>518</td>
<td>7.8</td>
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<tr>
<td>Neutral</td>
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<td>11.9</td>
</tr>
<tr>
<td>Opposed</td>
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<td>24.7</td>
</tr>
<tr>
<td>Strongly Opposed</td>
<td>3271</td>
<td>49.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>6612</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Responses to this item were examined for student, staff, and faculty groups. (See Figure 1 below.) The 5360 students who answered this item showed the most opposition to the idea of a switch with 81.1% of them either opposed or strongly opposed and 9.8% in favor or strongly in favor. (Percent of neutral responses will not be reported.) Most evenly divided were the 591 staff responses with 32.7% opposing or strongly opposing a switch and 36.0% favoring or strongly favoring it. Among the 661 faculty who responded to this item, 55.5% either opposed or strongly opposed switching and 27.8% favored or strongly favored it.

![Figure 1](image.png)

Figure 1. Overall opinion of a semester switch by faculty, staff, and students.

For students, the above patterns of opinion were fairly stable across the six
colleges. (See Figure 2 below.) The greatest amount of student opposition/strong opposition to a switch was 83.5% in CAED, the least amount was 74.0% in COSAM.

Figure 2. Overall opinion of a semester switch by students within college.

Faculty showed a bit more variability with high and low opposition/strong-opposition values of 65.9% and 34.8% in CENG and OCOB, respectively. (See Figure 3 below.)
Figure 3. Overall opinion of a semester switch by faculty within college.

Staff showed the most variability. (See Figure 4 below.) Within the colleges, opposition or strong opposition to a switch was the greatest for CAED staff (76.9%) but the least for COSAM staff (22.0%). Outside of the colleges proper, the greatest and least amounts of staff opposition/strong opposition to a switch were from Academic Affairs (42.2%) and ASI (10.7%), respectively.
Overall opinion about switching to semesters was also analyzed as a function of student, staff, and faculty experience with such a system. The general pattern showed that inexperience with semesters was associated with reduced support for a switch. However, experienced or not, large proportions of both groups of students opposed or strongly opposed a switch. Of the 5352 student responses to this item, only 22.8% had experience with semesters. (See Figure 5 below.) Among them, 77.3% opposed or strongly opposed a switch, whereas 14.6% favored or strongly favored it. Among the students with no prior experience, opposition or strong opposition increased to 82.2%, whereas only 8.4% favored or strongly favored it.
Figure 5. Students’ overall opinion of a semester switch by semester experience.

Seventy percent of the 591 staff responses to this item indicated experience with semesters. (See Figure 6 below.) Among them, 30.4% opposed or strongly opposed a switch, whereas 40.8% favored or strongly favored it. For staff with no prior experience, opposition or strong opposition increased to 37.9%, whereas only 24.9% were in favor or strongly in favor.
Not surprisingly, faculty had the greatest proportional experience with semesters. (See Figure 7 below.) Of their 661 responses, 89.7% had worked or studied under such a system. Among faculty with semester experience, 54.6% opposed or strongly opposed a switch, whereas 28.7% favored or strongly favored it. Among the faculty with no prior semester experience, opposition or strong opposition increased to 63.2%, whereas only 20.6% favored or strongly favored it.
To address the concern that faculty respondents might express frustration about the quarter/semester issue or about the survey itself by leaving items blank, analyses of missing responses were conducted. Of the 686 faculty respondents, only 16 (2.3%) provided no responses whatsoever to the initial set of six questions. Among the reasons for remaining on quarters, only 59 (8.6%) faculty respondents provided no feedback at all. Regarding the reasons for switching to semesters, 93 (13.6%) offered no responses.
Survey Comments Summary

SRTF members have read through all of the survey comment responses. The complete set of responses is included in appendices. Responses have been redacted to remove personal identification and profane language. While reviewing the responses, common response themes were identified and are summarized in this section and illustrative responses have been included.

Common Themes – Faculty:

Pro Quarter

- The Quarter system allows students more diversity in classes taken, giving them ultimately a more well-rounded education.

  “Being 'comprehensive' means students need to take a diversity of classes. The same diversity will not be available to them on a semester system.”

- The pace of the Quarter system better prepares students for their jobs.

  “The fast paced quarter system better prepares students for their professions and increases their marketability and the reputation of Cal Poly of producing quality, business oriented professionals”

  and

  “Quarters are more academically rigorous which aids in the value of a degree from Cal Poly”

- Quarter system seems much better for accommodating research and research release time. It could be much harder to buy out 2 semesters of meaningful research time than 2 quarters.

  “The flexibility in scheduling faculty assigned time and release time is a plus for quarters over semesters.”

- Quarter system workload produces more time spent with students:

  “Switching to a semester system will require faculty to teach more classes at the same time which will increase the workload for faculty. Even if the number of hours for each class is reduced, the workload will increase due to the difficulty juggling more different classes at the same time.”
• The cost of conversion is high in dollars as well as diverting faculty from teaching and student interaction:

“The substantial effort required to switch calendars would be costly initially, and disruptive for current students. These effects would persist over a period of several years.”

and

“A change of calendar would require substantial effort/disruption over a period of multiple years but could provide only a tiny net benefit, if any benefit at all, toward Cal Poly students' success.”

and

“Survey of Berkeley professors after switching back to semesters showed that they were mixed, with no preference for semesters vs. quarters, but all agreed the transition was not worth the time and effort. They suggest sticking with whatever you've got. I agree - why create so much extra work for the faculty and administration to switch to a system that is not any better?”

• The Cal Poly curriculum has been fine tuned over an extended time to work effectively under quarters. Sample faculty comment:

“Quarters have allowed faculty to develop and hone courses in areas of their specialty. The inevitable reduction of courses in semesters would result in losses in these courses, force mergers of courses currently taught by different faculty, and reduce the opportunities for faculty to teach from their expertise. Streamlining to me means the loss of things that make Cal Poly special.”

Pro-Semester

• Semesters provide a better learning experience and learn subjects in more depth.

“A semester system alleviates complications for students moving on to graduate work at semester institutions because of credit/unit transfer. One less registration, final exam, schedule changes, and term start-up is a big benefit not just financially but for emotional/intellectual well-being. It will improve the depth of student learning to facilitate not just 'How' to do something but 'Why'.”
and

“Our students would learn things more in depth and have more time for hands-on acquisition of the tasks required in a more interconnected world.”

and

“Having taught in quarters and semester system, I am firmly in favor of switching to semesters. It's better for students. It's better for faculty. Students and faculty here have less time to talk and be collegial than ANY other campus I have worked at or visited. By the time spring term rolls around, the students are burned out, and learning takes a nose dive. Longer winter breaks are useful for teaching and research. Faculty can use the time to plan better for their spring courses. The time can also be used for going to professional conferences and meeting with collaborators at other institutions. I see fewer CP faculty at the big annual meetings, given our size, than any other CSU campus. It would be easier to articulate courses offered at community colleges or transfers from (most) other CSU campuses. This is better for students and graduation rates.”

Other

Several faculty members commented on the following irrespective of calendar system:

- The faculty would need more information on the model for course loads chosen (e.g. 4-4, 3-3) before they could give a thorough assessment of the impacts on faculty and students.

  “I am fairly neutral about the benefits of switching to semesters from the perspective of student learning; there are benefits to both systems. My worry is that a greater number of class preps will actually diminish the possibility of further developing the teacher-scholar model. If the teaching load switches from three 4-unit classes to four 3-unit classes, faculty may have more preps even though in-class time remains the same.”

- Streamlining curriculum and improving graduation rates should be done.

  “If streamlining our curriculum and improving graduation rates is the real underlying goal, then, let's do that. Changing to semesters to achieve this goal does not seem like the best choice.”

and
“Tell the faculty the problems that you wish to fix and ask them to come up with possible solutions. We are after all one of the best ‘think tanks’ aren’t we? Maybe the end result would be a conversion to semesters or maybe we would find an even better solution.”

- Budgetary concerns.

  “... in general I would prefer semester system, but during this process, upon listening to my colleagues, I think this is not the right time due to persistent budgetary issues. ...”

and

“I think the quarter and semester systems are both valid ways of education. However, conversion to semesters during a period of budget stress, as well as the huge disruption of teaching for the year of the conversion, makes the semester system at Cal Poly very undesirable. Furthermore, the ability to have year-round education with a summer quarter helps many students graduate on time.”
Common Themes – Staff

Consistent with the numerical tallies of the staff, the staff feedback was more evenly mixed concerning the Pros and Cons of converting from Quarters to Semesters. The points raised are consistent with the feedback of the Faculty and Students regarding the pros and cons.

A theme was that Cal Poly is currently performing at a high level and staff often expressed the adage that “if it isn’t broke, don’t fix it”.

“The Quarter system is working and very successful - obvious from our University being one of the top schools companies look to recruit students from. Our students are successful and our awards prove it. Let's not fix something that isn't broken. Let's instead work on streamlining our curriculum and make strong efforts to improve our graduation and retention rates. ...”

Common Themes – Students:

Pro Quarter

- More Diversity of Course Offering

“The career path I'm now on came from classes that fulfilled neither GE nor Major requirements. Going from quarters to semesters would leave far less room to experiment in ways that could be valuable to students.”

- Pace

“I came to Cal Poly because I wanted to be challenged and engaged. This is the first time in my life that I have been challenged by my education, and not just in terms of academic difficulty; for the first time in my life, I have had to account for challenges in time management, stress and organization that have caused me to grow and evolve in ways that I would not have had to if I had a 'less stressful pace' to my education. The semester system is an unrealistic model of the real world. Frankly, it is boring, slow, and the focus it requires is exhausting. It allows time for slacking and gives students the chance to develop poor study habits. The quarter system requires that we hit the ground running: sink or swim, make or break. The fact that we survive this, no, excel at this, is what shows the caliber of students at Cal Poly and what makes us more successful as we seek careers and direction post-graduation.”

and
“I am an advocate of the quarter system because the fast paced class cycles and learning challenges me and allows me to be ready for the real world where the job is fast paced.”

and

“I spent a year studying abroad and the school I attended was on the semester system. After experiencing both semester and quarter systems, I am strongly in favor of the quarter system. I believe it encourages students to focus more on school. The semester system is very slow and far less vigorous. I believe the quarter system distinguishes Cal Poly apart from the other CSUs. The quarter system prepares students for the work force environment.”

and

“We would not experience the fast paced lifestyle that could be in our professions and would have less of an opportunity to meet more professors for possible projects.”

• Schedule Compatibility

“As stated before, the interference with harvests that the semester has is a huge drawback, especially for a school with such a large agriculture program. Additionally, the ability to take 3 different very specific labs (such as engineering labs) with a term for each as opposed to trying to split the same material over 2 terms is valuable, especially to the ‘learn by doing’ philosophy of Cal Poly.”

and

“The quarter system allows students to hold meaningful internships without the disadvantage of missing an overwhelming portion of the school year.”

• Conversion Impact on Students

“Converting to semesters means throwing away decades [of course development and starting over. Teachers have experienced what are effective teaching methods for helping students learn the material based on the quarter system schedule. They constantly make minor adjustments to optimize the potential for students to really absorb information and make learning connections. A switch to quarters means that teachers will be forced to be figuring out their new course schedules and will not have the time to be making those minor adjustments that really mean the difference between an average education and an excellent one. Further, with a new schedule teachers will have no prior baseline to compare new techniques or methods of presenting material.”
If you have ever experienced a class were a professor is teaching the course for the first time, you know that the quality of your education in this class suffers. This is how it will be for several years during the conversion to semesters. Cal Poly's education will loose its edge during these years and so will Cal Poly's reputation as these 'subpar' students begin to graduate. This reduction in reputation will affect me even though I am graduating this year, as Cal Poly's name on my resume will have less value. It only takes a couple years of bad education to damage a college's name and decades more to reestablish that name. The engineering courses will not 'just convert' to quarters. The fast pace nature and the hands on experience in getting projects done on a limited time frame is what sets us apart from other schools. Converting to semesters will have a seriously detrimental impact on the quality of a Cal Poly education for years to come. You will not be able to retain excellent teachers when they are faced with developing an entirely new course. If students really wanted semesters, if semesters were such a big deal, they would select to go to a school with semesters instead of Cal Poly.” [Note: Cal Poly has been on quarters since 1934]

• Quarter Criteria for Choosing Cal Poly
  “A lot of the appeal of Cal Poly for me was the quarter system. I feel that if we were to switch the quarter system, we are falling into the paradigm of the rest of the Cal State universities--redundant curriculum, slow classes, low-level academics. Cal Poly is unique in many ways, and should strive to keep its uniqueness. Furthermore, under the quarter system I am able to take 25% more courses of the period of 4 years than under the semester system. I STRONGLY oppose Cal Poly switching to semesters: it would discount my educational experience that I gain from my studies at this university.”

• Depth not increased under Semesters
  “'Increased depth of classes on a semester system.' That won’t work, because an extra half class would be awkwardly crammed in as well, unless, of course, it’s OK to graduate in 6 years. Take it like 'conservation of mass' the mass is curriculum. We have the same amount to go over in the same time. It’s just harder when a larger variety of topics is saved up for a single final. We also lose variety of classes on semesters.”

• Overall Quarter Preference
  “I just love the variety of courses I get to take with the quarter system. Every three months I am in a new course full of new things to learn. The pace is fast and you always need to keep up with your studies because exams come quickly. Yes, it's hard and stressful but it is so satisfying to learn so much. In my undergrad I took 16 classes a year (every year except freshman year) and graduated in 4 years with a minor. There is no way I cold have done that if I was
on semesters. Cal Poly has some of the best programs in the nation, not because it is easy but because it is hard. I think quarter systems have proved here to be excellent, I don’t see why we need such a large change when we claim first place in many engineering (and other) disciplines in front of giants such as Cal Tech, MIT and Stanford. With such a good school we do need to make changes to ever improve, but there is no need to such a large restructuring of the university.”

Pro-Semester

● Semesters are less stressful on students

“I think Cal Poly should switch to the semester system because it would be an overall better college experience due to less stress which the quarter system inflicts and the material being covered could be investigate more in depth than the quarter system. As an architecture student, I feel the semester system could allow for more time devoted to developing ideas and concepts instead of focusing on the time issues of getting a project done.”

and

“I am currently on an exchange at Oklahoma State University for just one semester (Fall Quarter.) I am a senior and have been at Cal Poly all 4 years prior. At first, I didn't like the semester system and felt like it moved through material too slowly. Although once we got into midterms, I feel that I enjoy it much more than quarters. I don’t feel rushed to complete my work and feel that the material is actually 'sinking in,' I'm able to more thoroughly comprehend and understand the material because I'm not rushing from midterm to midterm in just 10 weeks. I am strongly in favor of changing to semesters.”

and

“I received my bachelors degree from a university that is on a semester system and I must say that I liked the semester system a lot better. My GPA at that university was a lot higher than it is now and I want to attribute part of that reason to Cal Poly being in the quarter system. It is EXTREMELY stressful being in a very short frame of time to get various time consuming class projects done. I also feel that I do not retain a lot of the information I learn as I am constantly studying simply to pass the midterms and the final. I believe our 'learn by doing' motto can be best imposed if there were more time to do hands-on projects and less time being stressed about test after test after test.”

● Pace Promotes In-depth Learning
“I have extensive familiarity with the semester system. I completed no less than 11 semesters of study between my B.A. and my M.A. before coming to Cal Poly as an M.S. graduate student. The pace of the quarter system is far too fast. Learning happens slowly, and this is particularly true with difficult, complex, or entirely new areas of study. In a quarter, the student superficially skims the surface of a topic, whereas in a semester the student can dive deeply into a given subject. If Cal Poly switches to the semester system, the true winner would be Learning itself because both students and faculty would have more time to examine the depth and breadth of a subject.”

and

“Having taken classes at a college with semesters previously, I feel that the quarter system gives less time to really explore topics and results in a shallower educational experience.”

and

“I have always said that I would like to 'marinade' in the information of my classes longer, and have 'waves' of stressful school time with breaks of relaxed schooling in between. Quarters are so short, it's wave after wave of stressful time periods without much of a relief. Semesters would also allow for more personal time, such as taking trips or investing my time in extra-circulars, something I believe to be an important part of college, that I currently have to make time for where I really don't have the time. But I realize that the quarter system has benefits, and I’m on the fence leaning toward semester rather than completely sold on semester.”

- Semesters are more Efficient

“Semesters have the ability to make the university much more efficient due to less administrative, startup BS that takes place at the beginning of each quarter. More time in classes can allow for more focus on real world aspects of topics and how we are actually going to apply what we are learning and less time focusing on the 'test'. Also switching to semesters can allow for more time to build actual relationships with professors instead of just recognizing them in passing. Fewer good relationships are better than many superficial ones.”
Comments Independent of Calendar System

- Either Calendar can be used

“The ability of Cal Poly professors to deliver curriculum to students does not necessarily depend on a quarter or semester system. It depends on how the professor makes use of the time, as well as what the department states should be taught in a certain class. In the current situation, my department requires an overhaul of their curriculum for example. This can be attained with or without the semester system with more careful planning, and fresh ideas, because in its current state, 'learn by doing' experiences are next to none. If Cal Poly were to switch to a semester system, I would want there to be enough planning involved to properly make use of the new structure. Having more hands-on projects that coincide with the material would be a must. I still believe that many changes can be implemented without needed to switch to a semester system, and hopefully that Semester Review Task Force effort can be put to use elsewhere.
Semester Conversion Outreach Summary

Fall 2012
Overview
A switch to semesters could be an enormous change to how we currently define the Cal Poly education. A conversion deeply affects students in a way that is different from faculty, staff, or administration. For these groups, the main effect will be to the increased workload associated with a campuswide transformation. For students, the impact could be to our mode of education, style of learning, and value of our degree. In order to learn more about the potential impacts (positive and negative) of converting to semesters, ASI Student Government launched an outreach project to speak to students from all years, colleges, and backgrounds.

Student outreach
In order to collect the most in depth, candid, and analytic feedback, we decided to do a conversation-based method. Two hundred seventy surveys were administered, often in small groups, and over one thousand students participated in the dialogue. Students from every college were included and answered the following three open-ended questions:

1. What do you like and dislike about the quarter system?
2. Do you think any of the elements that you like about the quarter system could be adapted into a semester system?
3. What opportunities could semesters bring to our campus?

Many students also provided comments in addition to the primary questions. Because of the amount of feedback that was gathered, we were able to broadly connect the feedback to students based on college, major, year, and involvement on campus. We looked for trends among the following groups:

- Students by College
  - College of Agriculture, Food and Environmental Sciences
  - College of Architecture and Environmental Design
  - College of Engineering
  - College of Liberal Arts
  - College of Science and Mathematics
  - Orfalea College of Business
- Freshman Students
- Transfer Students
- Graduate Students
- Out-of-the-Classroom Experience
- Students at Large
Student Feedback by Category

The feedback was organized with consideration to the varying experiences, needs and nuances of our student body. We then explored the unique ways in which semesters and quarters influence our peers and found that each college and group had different potential outcomes following a conversion. The feedback below is denoted as either demonstrating a strength of semesters (S+), a strength of quarters (Q+), a weakness of semesters (S-) or a weakness of quarters (Q-).

College of Agriculture, Food, and Environmental Sciences
- Increased field experience because of calendar alignment with harvest seasons (Q+)
- Wider variety of experience within college including enterprise opportunities (Q+)
- Unique system appeals to prospective students pursuing this industry (Q+)
- Broadly explore California agriculture industry through diverse curriculum (Q+)
- Ability to meet and work with a wide variety of professors (Q+)
- Time to foster relationships with faculty on the semester system (S+)

College of Architecture and Environmental Design
- Variety of studios (Q+)
- Maintain motivation and focus on projects (Q+)
- Current system can be too intense/overwhelming (Q-)
- More time for design/architecture projects (S+)
- Required study abroad program is more convenient (S+)
- Fear that it will be hard to stay motivated & maintain intensity over long period (S-)

College of Engineering
- Higher frequency of tests covering less material is more effective (Q+)
- Variety of specialized labs provides increased industry experience (Q+)
- Maintaining fast pace better prepares students for smooth transition into careers (Q+)
- Not enough time to absorb information sufficiently on quarter system (Q-)
- Jobs and internships align with the academic calendar (S+)

College of Liberal Arts
- Small class sizes (Q+)
- Able to focus on fewer number of classes for a shorter period of time (Q+)
- Well-rounded students as a result of class variety (Q+)
- Less time in class, more time to work outside of the classroom (S+)
- Additional time to go in depth on topics to harbor additional understanding (S+)
- Performing and visual arts have more time to prepare projects and shows (S+)
- Literature-based classes could be overwhelming for long period (S-)
College of Science and Mathematics

- More exposure to faculty makes it easier to find research/work with professors (Q+)
- More accommodating for labs/research that require daily attention (Q+)
- Well-rounded due to many GEs, variety of classes (Q+)
- Topics are too rushed (Q-)

Orfalea College of Business

- Employers recognize & appreciate that we handle rigorous nature of quarters (Q+)
- Makes Cal Poly stand out in the industry (Q+)
- Semesters are on the timeline for corporate internships (S+)
- Longer duration of semesters reduces stress and accommodates for different learning preferences (S+)
- Group projects – get to know teachers and classmates better (S+)

Freshman Students: Unique experience due to adjustment from high school.

- Variety in courses allows freshmen to pursue wide range of interests (Q+)
- A lot of information in a short time-learning from the start (Q+)
- Lots of midterms in one week – difficult to adjust (Q-)
- Fast pace – makes transition more difficult (Q-)
- Big schedule change from high school to the quarter system (Q-)
- More time to adapt to a professor's teaching style (S+)

Transfer Students: Most transfer students surveyed came from a semester campus.

- Quarter system is more productive (Q+)
- Turnaround from winter to spring is too intense (Q-)
- On the semester system, first two weeks lag (S-)
- In a semester, more can be covered, more Learn By Doing and interdisciplinary (S+)
- Possible to find a way to maintain Cal Poly rigor with lower stress level (S+)
- Semesters provide more time to adjust to a new institution (S+)

Graduate Students: Have experience from previous institution as well as different needs than undergraduates.

- Easy to customize course of study because of a greater diversity of classes, can hone in one’s specific field of study (Q+)
- More opportunity for on-campus research (S+)
- Less faculty to interact and form relationships with (S-)


**Outside of Academics:** The role the conversion may play into extracurricular activities, study abroad, internships, and job opportunities.

- Able to meet more students due to variety of courses available (Q+)
- Constant pace of quarters limits time to get involved (Q-)
- Difficult to balance academic and social life (Q-)
- Internships/Jobs don’t line up with quarter system’s academic calendar (Q-)
- Scheduling is possible farther in advance due to the duration of semesters (S+)
- Time duration allows for students to make up for time lost due to personal circumstances, e.g. family tragedy, injury, mental illness, etc. (S+)

**Students at Large:** While we saw unique needs to each student demographic, there were commonalities among all, which we categorized as impacts upon the “students at large.”

- Unique to Cal Poly (Q+)
- Fast pace that prepares students for successful careers (Q+)
- Quarters allow you to meet more faculty members and learn from a variety of teaching styles and perspectives (Q+)
- Opportunities to take more courses outside major and college (Q+)
- Academic holidays are a break from academic demands (Q+)
- Accountable to attending class and keeping up with work (Q+)
- Disliked classes are over quickly (Q+)
- Semesters provide greater opportunities for in depth learning (S+)
- Internships match up with the semester system’s academic calendar (S+)
- Study abroad is more convenient on semester calendar (S+)
- Forgiving of students with outstanding circumstances (S+)
- Textbooks often written for semester curriculum- wastes money on unused material (S+)
- More time for senior project (S+)
Additional Feedback

**Ideas:** If Cal Poly chooses to convert or adapt our current system, the following are ideas from students on how to maintain or improve student success.

- Create hybrid model to bring fast pace to semesters: teach two courses within one semester.
- Combine series classes to maintain variety of classes on semesters.
- Team teaching: classes can be taught by multiple professors in order to maintain a wide variety of styles and perspectives.
- Combine courses from different departments to foster interdisciplinary learning and broaden breadth of education.
- Maintain rigorous test structure from quarter to semester system.
- Offer a January term for students to take specialized and intensive courses.
- Support more extracurricular opportunities in order to maintain the fast pace with the conversion.
- Provide faculty flexibility to find creative ways to go more in depth on topics.

**The Cal Poly Fundamentals:** There are a number of things that students believe are not negotiable to their Cal Poly degree. No matter what changes are made to the calendar, curriculum, or mode of teaching, students expect that the following will always be part of a Cal Poly education:

- Learn by Doing:
  - Students expect the dynamic hands on learning experience maintained in every class offered at Cal Poly because of the polytechnic nature of the institution.
- Comprehensive education that encourages whole systems thinking, strong work ethic, and problem solving skills
  - Challenging, world class curriculum
  - Diversity of courses to broaden student perspectives
- Resources to promote student success
  - Quarters- support for students to prevent them from falling behind
  - Semesters- support to keep students motivated and engaged.
- Fast paced to match industry speeds
  - Employers recognize and appreciate the rigor that we are accustomed to from our Cal Poly education
- Strong prestige and value of Cal Poly degree
  - Past, current, and prospective students maintain pride and confidence in the merit of a Cal Poly education.
**Summary**

Cal Poly students are extremely proud of our education. Much of the opposition to change is based not in the conversion itself, but rather it is a testament to the pride in what we know to be Cal Poly. Students wear the quarter system like a “badge of honor.” We feel that we have been extremely successful in a fast paced setting that has pushed us to our limits, fostering the skills that will prepare us for rewarding careers. Student input has demonstrated the challenge of this discussion: many of the strengths provided by either system can also be considered a weakness. Essentially, both systems will provide unique dynamics for the student body. Whatever system will offer our students the greatest benefits of the Cal Poly Fundamentals should be carried out. Moving forward, we hope that the Semester Review Task Force considers what students believe to be non-negotiable when analyzing the possibility of Cal Poly’s conversion to semesters.
## Input from ASI Area Directors on Quarter to Semester – November 2012

<table>
<thead>
<tr>
<th>ASI AREA</th>
<th>Comments</th>
<th>Potential / Unknown Impacts</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Children’s Center</strong></td>
<td>Longer time between academic terms to prepare and collect paperwork needed for the next academic term.</td>
<td></td>
<td>Summer Poly Trekkers Program Scheduling would be more challenging because we must work around school district summer break which is more in line with the summer quarter system.</td>
</tr>
<tr>
<td></td>
<td>Less paperwork required for parents to complete and staff to process due to one less academic term.</td>
<td></td>
<td>Potential for even lower Summer Enrollment which may not make summer term economically feasible.</td>
</tr>
<tr>
<td></td>
<td>Less time spent scheduling staff due to one less academic term.</td>
<td></td>
<td>Our largest new enrollment now occurs in Fall Quarter.  The Semester change would likely cause a larger enrollment in Fall and a smaller enrollment for Spring with less potential turnaround between semesters.</td>
</tr>
<tr>
<td></td>
<td>More stability and consistency provided for children, teachers and staff (Internal and External customers).</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Business Office</strong></td>
<td>Quarterly reports frequency for VPSA.</td>
<td></td>
<td>Impact Audit / Fiscal year end activity with start of school year activities.</td>
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<tr>
<td><strong>Student Government</strong></td>
<td>Will make it easier to scheduling of Subcommittee meetings (trying to find a time that works for large groups only 2x during the year rather than 3).</td>
<td></td>
<td>Impacts to standing committee with changes to bylaws-Internal Review, business timelines-Business &amp; Finance, Elections-Recruitment &amp; Development.</td>
</tr>
<tr>
<td></td>
<td>Will affect Elections timeline for Board and UUAB.</td>
<td></td>
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<tr>
<td></td>
<td>Recruitment, branch interviews, orientations, transition will all have to change.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Recreation Center</strong></td>
<td>Minor adjustment to scheduling meetings and supply timeframes.</td>
<td></td>
<td>Affects Board &amp; UUAB meeting schedules.</td>
</tr>
<tr>
<td><strong>Programs</strong></td>
<td>No major administrative impacts.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Division of Student Affairs: Staff Viewpoint on Semesters

<table>
<thead>
<tr>
<th><strong>Pros - Semesters</strong></th>
<th><strong>Cons - Semesters</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Health &amp; Counseling Services:</strong></td>
<td><strong>Health &amp; Counseling Services:</strong></td>
</tr>
<tr>
<td>• CSU-wide benchmarking data will be comparable to the other 16 campuses on semester system.</td>
<td>• Overstaffing during 6 to 7 week of winter break.</td>
</tr>
<tr>
<td>• Longer time period for students to meet immunization requirements.</td>
<td></td>
</tr>
<tr>
<td>• Possibly less demand for antibiotics as students don’t feel extreme pressure to get well.</td>
<td></td>
</tr>
<tr>
<td>• Less overall stress for students which might lower demand for acute counseling.</td>
<td></td>
</tr>
<tr>
<td><strong>Reduction of coordination of student assistant office coverage from 4 to only 2 occurrences per academic year.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Breaks would be longer, allowing for more time for staff to do catch-up work, so as not to be so overwhelmed throughout the year and during the summer.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>15 weeks in each class (as opposed to 10) would allow our students the additional time they need to experience a greater depth of understanding and development, ultimately contributing to a higher level of achievement of Cal Poly’s learning outcomes. Also, the relationships that students are able to establish with faculty and staff can be more authentic and meaningful with more time to develop. An obvious benefit is the reduction of administrative processes (the shuffling of scheduling classrooms, registering for courses, academic advising, etc.) from 3 times a year to twice. Overall, semesters would be more suitable for a deeper level of learning, more meaningful research and writing, and greater possibilities for our students to “add to the body of knowledge.”</strong></td>
<td></td>
</tr>
</tbody>
</table>
Thanks for allowing me to respond to this topic and taking the time to listen to my thoughts as an individual. I will start by stating my opinion that I think we should keep the quarter system that is currently in place. I know that this topic has come up about every 10 years for the last 30 years at least — are we beating a dead horse here? I feel (and have heard from both parents and students) that the quarter system is one feature that students really like about Cal Poly. However, some of my questions are:

1.) How would this impact currently-enrolled students and timeliness of their progress-to-degree? Meaning, how many more years will be added to their current graduation rate of four years?

2.) Is the faculty on board? Are they willing to revise their curriculum to fit a semester system? Or would they be adding additional information to the current curriculum?

3.) How does this benefit the university if tuition is only paid twice a year instead of three times?

4.) What exactly are the benefits from a financial standpoint?

5.) Will this limit access to classes even more because some courses will only be able to be offered two times per year instead of three?

6.) I am aware that the cost to convert to the semester system is somewhere between $4-6 million. I am also aware that the Chancellor has said that IF Cal Poly were to agree to convert that they would provide the funding to cover the conversion. That's nice but, here's my issue with this...if the CSU has the money to pay for the conversion then why can't they provide us with the funding that we are lacking to support the programs that are currently underfunded and/or struggling? From my perspective it sounds like we are being bribed to convert. I am skeptical that the semester system is the right choice for Cal Poly.

7.) I know that this next feedback only impacts me but, it is something that I worry about. I personally really like the way the quarter system runs and hope that it remains as is. I am currently taking classes and making progress to degree in order to complete my BA (with only 13 classes left to complete my degree). In cases like mine, I can only take one class per quarter. It is beneficial to be able to take three classes per year instead of only two - this means it would take me two more additional years to graduate. If this were to happen would there be any chance of reinstating the ability for staff to take summer classes using fee waiver?

8.) It's hard to say how this would impact our office. I don't believe that the change would have much, if any, impact in our daily office operations. We operate year round and our busiest times tend to be opposite of other departments on campus.
DIVISION OF STUDENT AFFAIRS
Semester Review Task Force

Compiled by Martin Shibata

The Division of Student Affairs is comprised on the following units:

- Associated Students, Inc. (ASI)
- Career Services
- Disability Resource Center (DRC)
- Health & Counseling Services
- Office of Student Rights & Responsibilities
- Student Academic Services (SAS)
- Student Life & Leadership
- University Housing

This report explores the opportunities and/or concerns Student Affairs would have if we converted to a semester system.

1. Division of Student Affairs

There are some division-wide opportunities to a semester system:

A. Benchmarking - CSU-wide benchmarking data will be comparable to the other CSU campuses on a semester system.
B. Start-Up – A semester system would reduce the number of program start-ups.
C. Data Tracking – A semester system would provide a time cost savings in tracking and calculating services.
D. Student Assistants – A semester system would strengthen student assistant stability and reduce student recruitment needs (based on class schedule availability).

There are some division-wide concerns to a semester system:

A. Child Care Needs – Staff who have child care needs may have difficulties in securing child care during the off-periods.

2. ASI (Children’s Center)

Children’s Center has identified the following opportunities:

A. Operational – Under a semester system, there is more consistency for children and staff. There is a reduced amount of turnover in scheduling student staff. There is a reduced amount turnover in parent schedules (children’s time at the center).
B. **Administrative** – Under a semester system, there is less time spent on enrollment and management of documents.

3. **ASI (Business Office)**

The ASI Business Office has identified the following opportunities:

A. **Business Operations** – Various processes related to Human Resources, IT, Accounting and Budget will be impacted. For example, collections, payments, remittances, and reconciliations will be completed 2 times rather than 3.

B. **Human Resources** – Student recruitments will be reduced and may positively affect staff stability under a semester system.

4. **ASI (Recreations Center & Programs)**

The Recreation Center and Programs would be affected in the following ways:

A. **Programming** - The slower pace of a semester system would impact the Craft Center, events, instructional classes, Poly Escapes, intramurals and aquatics. A longer term and slower pace results in fewer start-ups.

The Recreation Center would be affected negatively in the following ways:

A. **Recreation Center Coverage** - The Recreation Center is open during the mid-semester break. Getting student assistant coverage will be a challenge to ensure continuation of service (faculty/staff membership).

B. **Rose Float** - Rose Float requires a large volume of student participation. Early quarter finals allow them to volunteer. A late semester may create a dilemma to help with the float.

5. **Career Services**

Career Services has identified the following opportunities:

A. **Recruiting** - Semester system will align Cal Poly with other campuses from a recruiting perspective. This will provide students and graduates with earlier access to employers and jobs. The quarter system puts on-campus interviewing and career fairs later in the recruiting cycle compared to semester-based institutions.

B. **Summer Employment** - Semester system will give students a better chance of finding summer employment and internship opportunities.

C. **Career Counseling** – Career Counselors present in many freshman orientation courses, covering service overviews. Under the semester system, Career Counselors would do less overview presentations and have more opportunities for follow-up in making more impactful presentations related to career planning.
D. **Change of Major Counseling** – The quarter system rushes a student seeking guidance prior to class registration. After meeting with the Career Counselor, the student does not have sufficient time to follow-up with his/her academic advisor to make adjustments to his/her class enrollment plans. The semester system would alleviate these problems and allow more time for an informed decision.

6. **Disability Resource Center (DRC)**
   DRC has identified the following opportunities:
   A. **Administrative Support** – The administrative effort to deliver services is greater under a quarter system. A semester system provides a time cost savings to support services. DRC must prepare, organize, recruit, hire and schedule service providers each quarter. Service providers include sign language interpreters, captionists, and note-takers.
   B. **Textbook Conversion** – Some students need to receive instructional material in an alternate format, primarily converting textbooks from print to audio. Fewer conversions will be needed under a semester system.

7. **Health & Counseling Services**
   Health & Counseling Services identified the following opportunities:
   A. **Student Stress** – A semester system provides less overall stress, which might lower the demand for acute counseling.
   B. **Depression** – Students who experience depression and an inability to complete coursework would find it more difficult to catch up on a quarter system.
   C. **Support Groups** – A semester system provides more lead time to get support groups started. This may also provide a slightly increased access to groups.

   Health & Counseling Services identified the following concerns:
   A. **10/12 Re-alignment** – Expenses will incur in shifting 10/12 staff from a July/August-off schedule to a June/July-off schedule.

8. **Office of Student Rights & Responsibilities (OSRR)**
   Adopting a semester schedule would not have any known significant effect on OSRR operations.

9. **Parent Program**
   Parent Program would be impacted as follows:
   A. **Time Savings** - The amount of staff time dedicated to answering/addressing parent questions/concerns about registration, availability of classes, and progress to degree
may decrease with the move to semesters. The timing of e-mail messages to parents would require slight adjustment (currently four annually + special editions).

B. **Programming** - The academic colleges and departments may have more student projects to showcase or time to rehearse for performances for Parent and Family Weekend under a semester system, assuming the timing of the weekend remains about the same.

Parent Program Concerns:
A. **Perceptions** - More time will be spent addressing perceptions and concerns that the semester system has made timely progress to graduation more difficult.

### 10. Student Academic Services (SAS)
SAS would be impacted in the following ways:

A. **Program Stability** – The number of student recruitment and training would be reduced. Program meeting would be reduced. Given the large number of student staff, the impact is substantial.

B. **Time Savings** – Staff time and effort savings on routing coordination items (room reservations, communications, group formations, workshop scheduling, add/drop deadlines, registrations).

C. **Advising** – A semester system provides more time for successful academic intervention.

SAS concerns:
A. **Financial Aid Progress Requirements** - Under a semester system, if a student does not successfully complete his/her units, there is less opportunity to make up financial aid academic progress unit requirements.

B. **Retake Classes** - Under a semester system, there is less opportunity for the student to retake classes he/she is not successful in that are prerequisites to other courses as opposed to a quarter system.

### 11. Student Life & Leadership
Student Life & Leadership would be impacted in the following way:

A. **Slower Pace** - A semester system would simplify programming and create a slower pace.

### 12. University Housing
University Housing has identified the following opportunities connected to conversion to the Semester System:
A. The conversion to semester would provide a targeted opportunity to review components of the University Housing program that are currently tied to the quarter system calendar.

B. The conversion to semester may provide a longer winter break, which could provide an opportunity to complete some facility projects that have typically not been able to be completed in a shorter winter break time frame.

C. Conference and Event Planning would have the entire month of June for conference use. August use of facilities may be limited.

D. Semester system may be less stressful on students versus the quarter system.

E. Staff time needed for follow-up for students who experience emotional/mental health issues that are associated with stress, may decrease.
Alumni Survey Comments Summary
Prepared by Rick Bergquist

Alumni Solicitation of Comments

The Cal Poly Alumni were informed of the formation of a Semester Review Task Force and offered the opportunity to offer their comments on the potential change to a Semester calendar system. The Alumni Newsletter email sent by the Cal Poly Alumni Association was sent to 67,694 email addresses. Approximately 275 responses were received and contained many thoughtful and passionate thoughts.

Analysis of Comments

These responses were reviewed and common issues & themes raised by these emails were identified and a count was made of each issue identified by the alumni. If a respondent mentioned multiple issues, the count includes these multiple issues (i.e., issue responses were not limited to a single issue per email.)

Each email was then categorized into the following overall responses:

- Pro Quarter
- Pro Semester
- Neutral
- Awaiting Cost Justification before Deciding

The alumni results of this categorization are:

- 85% – Pro Quarter
- 4% – Pro Semester
- 6% – Neutral
- 6% – Awaiting Cost Justification before Deciding

One overall comment clearly stood out and was cited mostly word-for-word in 15% of the responses: "If it isn't broke, don't fix it." This sentiment was also raised in much of the text submitted praising the education that alumni had received from Cal Poly and crediting their education with later success in their careers.

The individual issues identified have been grouped by categories and arranged by frequency of citation. The two leading categories cited are Courses and Pace and are summarized here:
Courses – One-third of the alumni cited the advantage of Quarters was the wide variety of courses offered and their ability to take a larger number of courses. Many cited this as allowing their education to be broader in scope and also allowed them more cross-disciplinary opportunities. Several cited this as a means to find careers that did not fit the standard profile of a "major."

Pace – One-third of the alumni cited the advantages of the pace of quarters as a significant advantage for them. The explanations were varied and included the categories of:

- Fast time frame, pushing students to learn faster, work harder, and do better;
- Faster pace keeps students focused and avoids boredom / reduces complacency;
- Semesters are too long to sustain the fast pace of the quarter system;
- Better ability to "push through" a difficult class or incompatible professor;
- Students learn to manage time better.

The summarized results are shown on the following pages.
<table>
<thead>
<tr>
<th>Alumni Preference:</th>
<th>Pro Semester Argument</th>
<th>Pro Quarter Argument</th>
<th>General Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Issue</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Payback Analysis</td>
<td>15</td>
<td>234</td>
<td></td>
</tr>
<tr>
<td>Neutral</td>
<td>15</td>
<td>5.5%</td>
<td></td>
</tr>
<tr>
<td>Awaiting</td>
<td>15</td>
<td>5.5%</td>
<td></td>
</tr>
<tr>
<td>Remediation %</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Students</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>4.0%</td>
<td></td>
</tr>
<tr>
<td>Courses</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>86</td>
<td>85.1%</td>
<td></td>
</tr>
<tr>
<td>Failing a quarter course only sets you back 1/3 year vs. 1/2 year.</td>
<td>6</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Issue</td>
<td>Pro Semester Argument</td>
<td>#</td>
<td>Pro Quarter Argument</td>
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<tr>
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<tr>
<td></td>
<td>Quarters allow for courses that do not have enough content for a full semester. i.e. Specialized courses</td>
<td>3</td>
<td>Allow partial-Semester courses (e.g. 7 weeks) to allow for a broader courses and emerging topics.</td>
</tr>
<tr>
<td></td>
<td>Quarter courses can be more modular and specialized. Helpful at the higher levels where one student needs an introduction to a subject while another requires deeper knowledge.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Class sizes would increase in conversion to semesters and hurt students. (Based on results from schools that have converted.)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quarter series allows coursework to span 2 or 3 quarters to more finely meet needs of course breadth.</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Labs</td>
<td>Quarters offer more access to labs (3 x lab capacity vs 2 x lab capacity)</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Pace</td>
<td>Convenience and pace associated with learning in a less stressful environment would be a win-win</td>
<td>5</td>
<td>Pace pushes students to learn faster, work harder, and do better</td>
</tr>
<tr>
<td></td>
<td>Faster pace keeps students focused and avoids boredom / reduces complacency</td>
<td>29</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Prepares students for the fast pace they will face in the professional world.</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>Issue</td>
<td>Pro Semester Argument</td>
<td>#</td>
<td>Pro Quarter Argument</td>
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<tr>
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</tr>
<tr>
<td></td>
<td>Semesters are too long to sustain the fast pace of the quarter system.</td>
<td>17</td>
<td>Ag College system of comprehensive tests every 3 weeks is effective at setting expectations and momentum early, and test result feedback provides time for the student to self correct. Approach could also be applied to the Semester calendar</td>
</tr>
<tr>
<td></td>
<td>If a subject/professor is not ‘liked’ by the student, they can grin and bear it without feeling that half the year is now a depressingly long ordeal</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Students learn to manage time better</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sixteen weeks on semester compared to the average 10 weeks on quarters allows absorption and application of course material</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Longer duration to build working/learning relationships with professors.</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quarter Systems allow vacation breaks to fall outside (between) the quarters. That means full rest during those periods and full on work during the quarter.</td>
<td>21</td>
<td>Early Semester calendar avoids break over Christmas holidays</td>
</tr>
<tr>
<td></td>
<td>Allows Summer Term on same schedule as rest of quarters</td>
<td>14</td>
<td>Trimester / Short Sessions</td>
</tr>
<tr>
<td></td>
<td>Study abroad can be done in a more cost-effective manner</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Issue</td>
<td>Pro Semester Argument</td>
<td>#</td>
<td>Pro Quarter Argument</td>
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<td>-----------------------</td>
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<td>--------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>More convenient compared to semester system as it allows employment during the winter</td>
<td>1</td>
<td>break and summer break</td>
</tr>
<tr>
<td></td>
<td>Students get out earlier so they can get summer jobs easier</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Sports</td>
<td>School starting in late September made it much easier to carry out the pre-season,</td>
<td>1</td>
<td>which is hours of practicing and tournaments each week.</td>
</tr>
<tr>
<td>Financial / Costs</td>
<td>If there are cost savings, a switch should be made</td>
<td>2</td>
<td>Cost to switch will be many millions of dollars. Where are those funds coming from?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Any money available now should go toward educating our students.</td>
</tr>
<tr>
<td></td>
<td>Conversion require a huge amount of work from so many and not bring any benefit!</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conversion transition is difficult on existing students over a 3 to 6 year period and</td>
<td>8</td>
<td>could affect their graduation times and financial aid</td>
</tr>
<tr>
<td></td>
<td>The transition would probably sacrifice several generations of students' education</td>
<td>3</td>
<td>as lesson plans that have been taught on the quarter system for decades must be</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>thrown out and re-planned and re-paced.</td>
</tr>
<tr>
<td></td>
<td>Use the money of semester conversion to hire more faculty.</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lower costs because of one less registration/grading cycle</td>
<td>1</td>
<td>In a time of financial deficits, tuition increases this is not the time to spend</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>money on efforts that require significant financial capital.</td>
</tr>
<tr>
<td>Issue</td>
<td>Pro Semester Argument</td>
<td>#</td>
<td>Pro Quarter Argument</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
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<td>--------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Calendar Compatibility</td>
<td>Semesters coincide with community college programs allow attendance in summer classes at a community college</td>
<td>1</td>
<td>Easier transfer to/from UC systems that are on quarter system (all except Berkley and Merced)</td>
</tr>
<tr>
<td></td>
<td>Calendar matches the agriculture growing seasons</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Semesters coincide with community college programs allowing easier transfers</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Calendar Diversity</td>
<td>Many students chose Cal Poly for the quarter system because it matches their learning style and objectives</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Moving the CSU system to a unified calendar would eliminate the diversity of choices diminishing the education for some individuals without improving the expected outcome.</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Faculty</td>
<td>Overall faculty would teach the same number of units, but they would teach more courses each semester. This would have a negative affect on students.</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Semester system allows faculty to develop ideas better: more depth.</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Library</td>
<td>More time to arrange inter-library transfers.</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Internships</td>
<td>Quarter system provides more flexibility. Can be as short as 1 qtr or up to 3.</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Side Effects</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Issue</td>
<td>Pro Semester Argument</td>
<td>#</td>
<td>Pro Quarter Argument</td>
</tr>
<tr>
<td>-----------------------------------------------------</td>
<td>--------------------------------------------</td>
<td>---</td>
<td>--------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Will force full curricular review</td>
<td></td>
<td>1</td>
<td>It is not necessary to change the academic calendar to force curricular updating.</td>
</tr>
</tbody>
</table>
SEMESTER REVIEW TASK FORCE

Employer Survey 2012

Prepared by Martin Shibata

The various constituents at Cal Poly were considered as the Semester Review Task Force began exploring what would be involved if Cal Poly were to convert to semesters. This included input from students, faculty and staff. Employers, an important constituent to Cal Poly were also asked to participate in the exploration process. A survey was sent to a broad base of employers that actively recruit at Cal Poly. 51 employers responded to the survey. The following chart is a compilation of the results:

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you see a difference in capabilities in students from a semester or quarter system? If so, what is the difference?</td>
<td>2</td>
<td>49</td>
</tr>
<tr>
<td>Does your company use semester versus quarter as a criteria, factor or preference in selecting schools to recruit from?</td>
<td>3</td>
<td>48</td>
</tr>
<tr>
<td>Are there any differences in training you need to offer students coming from different systems?</td>
<td></td>
<td>51</td>
</tr>
<tr>
<td>Are there any concerns you have in making the quarter to semester switch that should be investigated?</td>
<td></td>
<td>51</td>
</tr>
<tr>
<td>Position on Semester Change</td>
<td>Good</td>
<td>Bad</td>
</tr>
<tr>
<td>Do you think the change to semesters is: good idea, bad idea or does not matter (DNM)</td>
<td>13</td>
<td>1</td>
</tr>
</tbody>
</table>
EMPLOYER COMMENTS

Employers were provided an opportunity to respond to the questions. The following are the total direct employer quotes:

Do you see a difference in capabilities in students from a semester or quarter system? If so, what is the difference?

“Students in the quarter system are more diverse as they have a broader range of classes. While three quarters of calculus would cover the same curriculum as two semesters of calculus, the ability to get exposure to soil science, strength of materials and ergonomics all in a relatively short time give students a leg up. While they may not hit the depth of a semester level gets, that is only required in specialty classes.”

Are there any concerns you have in making the quarter to semester switch that should be investigated?

“The only concern I can think of is that it would be good to ensure that students do not have to delay graduation due to unavailability of classes due to a switch from quarters to semesters. One of the programs we recruit for requires that students graduate by June. If a student had to extend their classes through fall semester, even though he would graduate by December, he would not be eligible for our program until the following summer.”

“We really love the CS and CE curriculum at Cal Poly. The balance of theory and practicum is invaluable to the development team. We find that your graduates are very well prepared to enter the workforce and add value immediately, and sometimes at a faster pace than students from other universities we recruit from. The last time I was on campus, it didn’t seem that many of your current CS/CE students were in favor of the change and many of our alum’s mentioned they liked the fast paced nature of the quarter system.”

“I think the quarter system is a large advantage for the technical students we employ. This truncated system gives them more exposure but also allows them to work through their GE requirements quickly and have more open opportunities for classes that relate directly to the tasks they will be asked to do in the work environment.”

“I would prefer to see Cal Poly start earlier so student candidates and organizations start energizing toward corporate activities (job searches and student group funding requests) at the same time many non-CA university students do. I only bring this up as having attended both quarter (UCLA) and semester (USC). I know it is best to have finals before the holiday break. So a semester would in my book start earlier. From that experience I preferred quarters though as I welcome the total submersion in engineering topics for a 10 week stint. I found time to goof around in the semester framework.”
1. Do you see a difference in capabilities in students from a Semester or Quarter System?
2. Does your company use Semester versus Quarter as a criteria, factor, or preference in selecting schools to recruit from?
3. Do you think the change to Semesters is: Good Idea, Bad Idea, Does not Matter (DNM)

<table>
<thead>
<tr>
<th>Diff in Capabilities</th>
<th>Selection Criteria</th>
<th>Position on Semester Change</th>
<th>College Based Hiring</th>
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</thead>
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<tr>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
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<td>Aera Energy</td>
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<td>Alcon</td>
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<td>Anheiser-Busch</td>
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<td>Appercen</td>
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<td>Apple</td>
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<td>Brocade</td>
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<tr>
<td>C&amp;D LLP</td>
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<tr>
<td>Cisco Systems</td>
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<td>CLOROX COMPANY</td>
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<tr>
<td>DZH Phillips LLP</td>
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<tr>
<td>E &amp; J Gallo Winery</td>
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<td>Enterprise Holdings</td>
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<td>FM Global</td>
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<tr>
<td>FMC Corporation</td>
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<tr>
<td>Fort Dearborn Company</td>
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<td>1</td>
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<tr>
<td>Foster Farms</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<tr>
<td></td>
<td>Employer Name</td>
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<td>------------------------------------------</td>
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</tr>
<tr>
<td>18</td>
<td>Frank, Rimerman &amp; Co</td>
<td></td>
<td></td>
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<tr>
<td>19</td>
<td>Good Data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Grant Thornton</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Hayashi &amp; Wayland</td>
<td></td>
<td></td>
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<tr>
<td>22</td>
<td>Hulu</td>
<td></td>
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<td>Insight Global</td>
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<td>Kiewit</td>
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<td>KLA TENCOR</td>
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<td>26</td>
<td>KPMG, LLP</td>
<td></td>
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<tr>
<td>27</td>
<td>Lincolhn Electric</td>
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<td>28</td>
<td>Lincolhn Electric</td>
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<tr>
<td>29</td>
<td>LinkedIn</td>
<td></td>
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<tr>
<td>30</td>
<td>Longcrier &amp; Associates</td>
<td></td>
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<tr>
<td>31</td>
<td>Maxim Integrated</td>
<td></td>
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<td>32</td>
<td>Microsoft</td>
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<tr>
<td>33</td>
<td>Moss Adams LLP</td>
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<td>34</td>
<td>Novogradac &amp; Co LLP</td>
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<tr>
<td>35</td>
<td>Parker Hannifan Corp</td>
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<td>36</td>
<td>Phillips 66 Company</td>
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<td>Protiviti</td>
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<td>Rothstein Kass</td>
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<td>43</td>
<td>Seiler &amp; Company</td>
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<td>45</td>
<td>Stoneturn Group</td>
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<td>46</td>
<td>Symantec Group</td>
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<td>1</td>
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<tr>
<td>47</td>
<td>Triage Consulting Group</td>
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<td>1</td>
</tr>
<tr>
<td>48</td>
<td>Wells Fargo Bank</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>49</td>
<td>Workday</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>50</td>
<td>WTAS</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>51</td>
<td>Yahoo, Inc.</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>
Industry Advisory Groups

Prepared by Rick Bergquist

Advisory Groups Surveyed:

Cal Poly engages Industry Advisory Groups at the University, school, and department levels. In order to gather industry’s perspective on the different calendar systems, polls and discussions were conducted for samples of each of these advisory groups. Industry input was sought because industry recruits graduates both at Cal Poly and other universities so they are able to see a sample of students from both systems. Industry also evaluates the new hires during their first years in the workforce and can assess their skills and general abilities. This assessment of the outcomes of the different systems is of interest as Cal Poly considers a change from quarters to semesters and how it might affect the student’s outcome.

Summary of Industry Comments:

Industry does not recognize significant differences in student outcomes based on the calendar system. Industry finds that the overall curriculum, faculty involvement, and student projects have more of an impact than the choice of quarters vs semesters.

Industry results varied on whether they thought the conversion was a good idea or not. Those favoring the switch to semesters generally saw it as an opportunity to review the curriculum in its entirety and take advantage of the review as a change agent. Those favoring staying with quarters general offered 3 reasons for changing:

- Since either calendar system can be effective, why spend money on the conversion that can be put to better use?

- The conversion is a time consuming process and will divert faculty and staff from their student activities.

- There was no perceived payback from completing the conversion.

Regardless of the calendar system, industry will continue to recruit graduates from Cal Poly.
President’s Cabinet Survey:

1. Do you see a difference in capabilities of students from Semester vs. Quarter systems?

   ValuePercent %
   No 85.7%
   Yes 14.3%

2. If so, what are the differences of each?

   Response
   Over 90% of the schools were hire from are on the semester system.

   Why even address this subject. I see no clear reason. If it is not broke, don't to fix it. I have been on the Pres. Cabinet since June 1979 and this has never come up and the quality of the graduate only gets better. Change is difficult enough to do it successfully when there is ample reason to do it. When there is no reason it will be much more difficult to implement.

   From a general academic qualification standpoint, none, but see note below re preparedness for the interview process.

3. Does your company use Semester vs. Quarter as a criteria / factor / preference for selecting schools to recruit from?

   ValuePercent %
   No 100.0%
   Yes 0.0%

4. Are there any differences in training you need to offer to students coming from different systems?

   ValuePercent %
   Yes 14.3%
   No 85.7%
5. If the change were made from quarters to semesters, what curriculum changes should be made to either overcome semester system weaknesses or to improve student outcomes?

Response
Quarter vs semester has no impact on our hiring or on the performance of newly-hired employees.

None that I can think of.

It would be easier to establish internships since the students would be in a single class longer - providing better continuity.

Who know??? Why change to something that might be perceived to be worse than the excellent product you have now under the Quarters system.

Recommend that if a semester was missed that the student would not have to wait a year to attend the next class.

Improve the multidisciplinary approach to educating students. Create a better balance between technical depth and breadth across other business functions.

6. Are there other concerns you have in making the Quarter to Semester switch that should be investigated?

Response
Costs, disruption to educating students in the pipeline

Cost of conversion and disruption to the education process for those students enrolled at the time.

While I am sure there is a long list of transition issues, I can't think of any that couldn't be managed

I would list this change LAST on my priority list of things that need doing.

Tuition
21st century student body (Hispanic faculty, Hispanic Students, for example)
80% of new students in K-12 are Hispanic
Cal Poly SLO has essentially NO Hispanic Faculty
Politicians are majority Hispanic and they now control funding and I could go on and on. Cal State LA, Cal Poly Pomona, Cal State Sacramento, etc. are getting more and more of the available resources from Local, State and Federal agencies.
Response
I would also review the number of credits needed to get certain degrees. Some of the required credits are excessive compared to other majors.

I think quarters generally move too fast to provide a great learning environment, so while there aren't differences in the work place - it allows for more in-depth course study in a single subject. Perhaps less breadth, but I'm ok with that.

7. Overall, do you think a change to semesters is:

<table>
<thead>
<tr>
<th>Value</th>
<th>Percent %</th>
</tr>
</thead>
<tbody>
<tr>
<td>A good idea</td>
<td>42.9%</td>
</tr>
<tr>
<td>A bad idea</td>
<td>28.6%</td>
</tr>
<tr>
<td>Don't care</td>
<td>28.6%</td>
</tr>
</tbody>
</table>

8. Why do you feel this way?

Response
Don't understand the value of making the switch.

Although I believe we should always strive to improve, this is not an area that merits such attention.

No one has answered the Question of the 5 "W's": Who, What, Why, When, Where and How and How Much?

It will take at least one generation to measure results that are so far not available. If you postulate the TIME LINE to fully complete the transition you are talking incoming student under the new system. 6 years later graduating, evaluating their careers in the different disciplines and enterprises (in my case 34 years at a major aerospace company) In the many years I have been on the President's Cabinet, things have only gotten better. Why, in the absence of measurable advantages, would anybody pick change as opposed to fine-tuning the winning system you have now?

The NOT INVENTED HERE SYNDROME is alive and well. This is wasted energy when there are real issues at Cal Poly SLO that should be addressed and that truly threaten the No. 1 spot of Cal Poly SLO. Smooth transition takes decades.

Respectfully submitted,

XXXXXXXXXXXXXXXX

Having students come from a Quarter system versus Semester system has the following
Response

Implications from us (PWC) as an employer of students

- Has an impact on our timing of internships and opportunities since they start later - we have to have them start later and the program generally finishes earlier as a result of the semester students.

- Since they start so late, they are generally not as well prepared for the key recruiting season that starts in late September and early October - since they haven't been on campus there is not as much of a chance to get to know recruiters, get prepared to do well in an interview etc as compared to the semester students.

- Many students do the study abroad at the end of their senior year before they start work which delays their start date beyond the established start date for semester students - when they come later in Sept, they are not as well prepared to be deployed and could put them at a significant disadvantage from a performance perspective to their semester peers.

- We are seeing that it is more difficult for the Q students to meet the 225 hour state requirement for CPA's compared to the semester students who are able to meet the requirement with summer classes and finish in time to meet start dates.

Having said all this, we have worked hard to accommodate in So Cal, because two other big schools at which we hire from - UCLA and UCSB are also on a Quarter system.

I think it has nearly equal pros and cons. There are clearly more semester-based universities than quarter-based. So, moving to semester would appear to make transferring into or out of Cal Poly more efficient. It may have some, unknown to me, positive impact on grad school admission. From an employer perspective, I see no advantage to changing. Students from both systems appear well prepared to enter the working world. The biggest negatives that I see are the cost of conversion, the time it will consume of the faculty and administration during the transition process and the potential negative impact on those students enrolled at Cal Poly during the transition.

With change there is always an opportunity to be better. Take advantage of the change for the better. Don't fight it, embrace it!

There are so many things that need to change in the Cal Poly institution and I would use the change to trigger many other changes - including cross department curriculum, curriculum and teacher changes, student requirements, etc...
College of Engineering Dean’s Advisory Council Summary:

The Dean’s Advisory Council had quite a bit of discussion following an overview of the study that is in progress presented by Rachel Fernflores. In addition, the breakout session of the Industry Advisory Board chairs had quite a discussion of the matter. Here is a summary:

- Industry in general does not seem to care either way assuming there is no significant disruption in the pipeline of engineering graduates. Several commented that the system seems to work fine from their perspective.

- Those members who either graduated from Cal Poly or have had children or relatives who attended seemed to be biased towards the quarter system. Having successfully experienced and graduated from the quarter system they are believers in it. There is some belief that the pace of the quarter system and the length of the winter/spring combo helps to create graduates who can handle fast pacing with stress and the ability to persist through a long slog of the winter/spring. This perhaps is one of the intangibles that draw the believers.

- The concern about cost and disruption is strong. Given the cost to implement which would be significant, and the potential disruption high, many expressed that they would like to know what the value is in switching. Also questioned was the timing for the change. Is this the right time to change with such a significant financial challenge facing Cal Poly (maybe it is a good time with Proposition 30 passing?)

- Some also understand that this could be a catalyst for change in the way education is provided (i.e. moving to a less siloed more multidisciplinary structured system). However, there still seemed to be concerns about the cost effectiveness of this approach to achieve organizational change. The DAC members expressed frustration around the idea of using this to motivate a redesign of the curricula.

- Lastly, some members do understand that if the “train has already left the station” and rest of the CSU has moved or is moving to semesters, and the new chancellor wants this to happen, then that should be the stated reason and then just get on with it.
Computer Science Department IAB Survey:

1. Do you see a difference in capabilities in students from Semester vs Quarter systems?

- I do not see any significant differentiation between quarters and semesters per se - if the university is solid than there is not a huge difference that is noticeable.

- I have not seen any differences in students (including my 3 daughters) who attended colleges on Semester vs Quarter systems. But I might add that what I have also witnessed and heard/read depends on how the college arranges the courses (you still have to cover the same amount of learning/material) and the types of students and their preparations for college. Some like fast paced classes (especially for non-major courses). Others like the more in depth time for their core/major and important courses.

- Typically, out of the engineers I hire from California, UC Berkeley and San Jose state have semester systems. Almost all others come from quarter systems. Generally we do not find much difference between the Undergraduate students from Semester or Quarter systems in terms of capabilities.

- I like the diversity of classes a quarter system enables. Subjects that would not justify a semester class could show up as a quarter based class.

- I can only speak from computer science related disciplines and I do not find difference between the two systems in the quality of the students -- I find that overall curriculum has more an impact the quarters vs semesters.

- Managers and recruiters don’t see a particular advantage of one system over the other in terms of ease of hire or success in the role. Ex-graduates from Cal Poly like what they did and think it would be a bad idea to switch. As an ex-quarter system guy I feel the same way.

- I don’t see much difference in terms of marketability of a student’s skillset. If a student has the training and/or experience necessary for the job and has good grades, then we consider him/her to be a potential candidate for hire. I have a personal inclination toward the semester system, but only because my own education was based upon semesters and therefore I understand that paradigm better. Subjects are subjects and credits are credits, regardless of whether they were completed in 10 weeks or 15

- Although there is certainly a little more overhead in administering a Quarterly university program, I believe that it is a much better fit for the College of
Engineering, and CS and EE departments in particular, as these fields tend to move a very rapid clip. With the finer granularity that quarterly installments allow, courses can be more quickly added to the curriculum (or discarded) than longer term formats, adding more flexibility and nimbleness to tracking new developments in the field. With the curriculum already bursting at the seams, it would seem that the semester format would add even more challenges to covering all of the emerging topics required, especially in CS.

2. If so, what are the differences of each?
   - Issues I have seen for the differences have included:
     - Sequencing/availability of classes and sections - of course we might say this for any college that now has to cover so much more in a major than what I needed to learn back in the 1969-1973 time period and also with the budget constraints that most colleges are facing yet with increased demand for larger enrollments.
     - Pacing was another issue - all things being equal - some classes only have enough material for 10 weeks, period! For quarter systems sometimes this means breaking up some courses into part I and part II (2 quarters) when the subject matter could easily be covered in a one-semester class.
     - With quarter system you have more classes at the same time causing students to have to do even more multi-tasking/multi-topic(ing?) Instead of focusing on 3 specific classes in a semester system. For general ed classes in a quarter system maybe this would not be a big deal and would favor multi-tasking. For deep/solid core/major classes this could be a larger problem for semester system. Focus is everything and my belief is that a semester system of 3 classes in a semester would allow students to spend more time on fewer topics.
     - With semester system, some colleges also offer a shorter/intensive "inter-session" between the two semesters (a 4-6 week course that meets more often) especially good it seems for a general education class and/or an elective class.
     - from a learning outcome and preparation for industry/job - I have experiences several issues i) you mentioned quarter matches the quarters that businesses have. While that may be true about quarterly business, for developers engineers we more often work on projects that span multiple business quarters and even calendar/fiscal years. In some ways this might be analogous to the 3 course sequence we worked to define for Cal Poly Computer Science Software Engineering sequence. This fit more with a team project/project world where you work on something more substantial (like a
real industry product/project). Of course other majors (business for example) might have more affinity for a college quarter/business quarter - but that has seldom been my experience for technical/engineering/computer projects (except maybe for internet/mobile/web work, feature updates and maintenance work - where the releases are hot and heavy all the time).

- Semester system has an advantage of providing the opportunity of doing projects that are larger in scope and have depth. It inherently forces the student to spend 4 to 5 months on the same topic with the same class/professor and allows depth. You could accomplish the same by spreading it across 2 quarters, but a number of students tend to either not take the 2nd part of the class or have a gap between the two. With tightening budgets, its getting worse as student might not be able to get the classes back to back.

This aspect is more severe for graduate classes as they are expected to get to more depth in these classes.

Some students tend to fish around for classes and take lot of different classes. Quarter system allows them to abuse it. I routinely interview students who have taken lot of different classes, with no depth. On one hand, this offers diversity of skills to the student, but lacks depth that is needed for most engineering jobs. In other words: its flexibility Vs specialty.

Again, this more important for Grad students than Undergrad students.

- I went to a university that did semesters and I watched my daughter go through using quarters – otherwise, I admit to knowing very little about the advantages of one over the other. One of the things I have noticed during the student presentations at Cal Poly is how rushed some of the projects are. And I think the time pressure does lend to a more “slap stuff together” attitude, rather than “take some time and get it right.”

Having said that, I also wonder whether moving to semesters would change this substantially. We all know of the tendency to procrastinate, so having more time doesn’t necessarily equate to doing more work. And it might well be that professors would just be more relaxed about getting students started on their projects, so I doubt things will change all that much.

My gut tells me that “university work” is not a terribly good approximation of “real work” for many, many reasons. The difference between quarters and semesters may be one of them, but even then it’s probably not a big one. If you believe that Cal Poly is best served by quarters, I’d be the last person to argue with you – I just don’t think it makes all that much difference. Are there perhaps financial reasons behind this interest in changing the schedule?
• I see people on quarter system have to learn more topics quicker and prepare for more tests sooner to keep their grades up.

• Quarter students may have slightly more breadth as they may be exposed to more topics, semester may have slightly more depth although quarter system may ameliorate this by offering multiple quarter classes.

3. Does your company use semester vs quarter as a criteria/factor/preference for selecting schools to recruit from?

• No. We look at the skills, experience and team capabilities of the candidates.

• Absolutely Not. I have been hiring for the last 20 years, never noticed anyone using this criteria.

• At St. Jude Medical we hired students from both systems. The university quality and student learning experience was more apparent than the school calendar. We didn't ask about it in any interview. We did hire many Masters students and many went to different undergraduate programs, so who understands that impact?

• I did 3 yrs undergraduate and 2 yrs graduate under semester. Also, 2 yrs grad on a 10wk "quarter" system. They were different. I don't think one was better though eng school was more fun and much harder than business school.

• No

4. Are there any differences in training you need to offer to students coming from different systems?

• Not really - especially in our compiler and tools business. For these employees we are looking for specific skills and experience in compilers, tool chains, platforms, etc. For other employees and products - there is always some training about our own internal systems, procedures, etc but nothing specific to quarter/semester experience in college.

• For jobs that require specific skills, the person who has taken classes related to it for 2 semesters would have solid background for that skill. To match this level of skill, the student in the quarter system needs to take these for 4 to 5 quarters. Someone who just worked on it for a quarter need training. The flip side is, semester system is forcing the student to make choices upfront, that makes it non-optimal for "less-focused" students.
If I compare the student from UC Berkeley (semester system) & Stanford (quarter system), generally there is no visible difference. However, the students who took advantage of longer projects at UC Berkeley tend to be more ready.

General answer to the question is "No".

Not really as long as students from schools from semester based schools have a broad exposure to technology like quarter based schools often have.

No, again overall curriculum quality more an issue than semester vs quarter

5. If the change were made from quarters to semesters, what curriculum changes should be made to either overcome Semester system weaknesses or to improve student outcomes?

Quarters allows for more classes and more variety overall (at least potentially). A student can have broader scope of topics which might be attractive (depending on course selection).

Again - the focus is ultimate on student outcomes and readiness to move into industry. Of course the colleges and departments would have to look at their curriculum requirements and see how they would re-factor from a quarterly set of courses/sequences to a semester set of courses/sequences. I have to believe that for each department/major - Cal Poly can find enough other colleges/universities in the world that have already done that work for quarter to semester and semester to quarter. For computer science - we have the accreditation/curriculum and any university/state requirements that can all be factored together. It would be great to see what inter-session (between semesters) classes might come about in the re-factorings.

Now - if the decision is based more on budget, faculty, higher utilization of school resources/rooms/etc, ability to handle more or less students - I hope that would be of less importance/priority than the "real" student outcomes.

Semester system limits the total number of classes. So, core classes should be constructed to balance this disadvantage. Projects should be crafted to provide adequate training using multiple programming languages and tools on the same project.

More opportunity for combination classes from multiple departments.
• Students in the semester system get stuck with bad teachers for a semester instead of a quarter. This is big deal.

6. Are there other concerns you have in making the quarter to semester switch that should be investigated?

• Switching from quarters to semesters is a big change - it calls for a complete redo of curriculum, teaching approach, etc. - there would need to be a massive improvement for students to even think about considering it.

My guess would be that cost concerns (or conforming with rest of CSU which I think are on semesters) are probably more the driver than improving students. I do think that the university could lose a lot from changing - "do no harm" might not be possible in such a change and there would be short term disruption during the change for sure.

• Will have to think about this more. If there is a hidden agenda in such a decision - it would be nice to know in advance to see if concerns might come up. To me - if the students are still learning and are prepared for industry or to move on to advanced degrees then cool!

Thinking about it a little more:

a) Would there be possible negative impact (in the short term) on being able to attract great students? Would some top students who like quarter vs semester choose to go somewhere else instead of Cal Poly? Or would this actually be a wash as maybe Cal Poly would attract other great students that would favor the semester system? Not sure if this is an issue - but maybe worth some research?

b) Would this make it easier or harder for students that are transferring in to Cal Poly from Junior Colleges or students that would like to transfer from Cal Poly to another CSU or UC? Of course, I would only think about how great it would be to transfer into Cal Poly and not out

c) Would this make it easier or harder for students to do Co-Op, Intern or Work Study in industry? One or two quarters of work away from school versus one semester away?

• Transition for existing students is a huge challenge.

• Given the budget situation that results in reduction in classes, its critical to make sure sufficient classes are offered each semester. Otherwise, students will take an extra year to graduate, which defeats the whole idea.
How is summer session handled?

I don't see the obvious upside from moving to semesters.

Concern would be the availability of classes and length of time that student may have to wait to get classes within a cycle. This concern may apply to both semester vs quarter and is more a function on how often courses are available vs the type of system.

7. Overall, do you think a change to semesters is:
Good idea: 1 (Conditional)
Bad idea: 4
Don't Care: 5

Why do you feel this way?

I think it is a bad idea - it is very easy to break many things that work well today without an obvious game changing benefit. I think the pace of quarters is more like the "real" world as well.

"A" - if the student outcomes are improved then great. For Computer Science and Software Engineering, I think this would give the students more time to really make get deeper into the key areas of the current curriculum? Might also serve to facilitate inter-department collaborative education match with major courses and work with other departments inline in a semester with the classes instead of separating the two objectives?

Some quick ideas for combinations in the current CSc curriculum if Cal Poly went to the semester system:

a) Fundamentals of CS (still one year but with 2 halves instead of 3 thirds might allow for more retention?)

b) Algorithms/data structures (could be combined in a semester?)

c) Software Engineering series I/II (one semester instead of two quarters?)

d) Intro to Operating Systems and Systems Programming (one semester instead of two separate quarters / courses?)

Some articles I found via Google search that looked interesting:
Switching quarters to semesters:

Merits of Semester vs Quarter System:

Semester Conversion Guide !!!
http://www.uc.edu/content/dam/uc/conversion/docs/faqs/guide.pdf

- Bad for Freshman, Sophomore years. Good for Jr, Sr years :) Since this is not practical, c) Don't care.

- I assume. there is sizable financial advantage in switching. If this is not true, do not stir the nest.

- My first thoughts are not that charitable. A very expensive distraction that won't help students. Deck chairs on the Titanic.

- Bad idea. Don’t understand the upside. I can see the downside.

- I don't have a strong opinion either way. I have seen pluses and minus to both systems